

Dear Homeowner,

EnergyBuild would like to congratulate you on your new home and welcomes you to SolarPAY free solar!

This information pack includes the following:

- ✓ FAQ
- ✓ Product information
- ✓ Warranty documentation
- ✓ Our contact details

By choosing Powershop as your electricity retailer you'll receive discounted rates on the solar power you use. Alternatively, you may wish to purchase the solar system outright and receive all power from the system for free regardless of which retailer you choose.

We are here to assist you from the moment you begin generating solar power. If at any time you have a question regarding SolarPAY, how to maximise solar production, or a general query regarding monitoring and Powershop, please give us a call on **07 3002 1900** or email service.energy@energybuild.com.au.

In the meantime, we wish you all the best with your new solar system.

Kind regards,

EnergyBuild

SolarPay FAQ

What is SolarPay?

SolarPay is a new solar solution for owner-occupiers building a new home. It allows the homeowner to access discounted energy from the day they move in and receive a 6.6kW solar system at no cost after 60 months.

When do I own the system?

After 60 months, the system is transferred into the homeowner's name at no cost. The homeowner also has the option to buy it earlier and the system price reduces by \$1,000 each year (reduces by \$1,150 per year if the customer upgrades to either an 8.3kW or 10.3kW).

Can I break the contract for the Solar Panels?

Yes. To break the agreement, the homeowner can either transfer the agreement to a new homeowner or buy the system outright at the relevant payout amount.

Who gets the solar benefits for the first 60 months?

The benefits are shared.

EnergyBuild owns the system, however, provides a discount on all solar power to the homeowner for the first 60 months if they stay with the same energy retailer (Powershop), however the homeowner is free to switch energy retailers if they find a better deal.

Does the price to own outright reduce as the months go past? i.e. after 24 months, I have decided I would like to purchase the solar system and output. How much will it cost me?

Yes, the standard 6.6kW system can be purchased outright at any time and reduces in price by \$1,000 on the anniversary of handover of the home each year. If you chose to upgrade the system to either an 8.3kW or 10.3kW, the system will reduce by \$1,150 per year.

Does the cost to own the system outright reduce if I decide to buy during the year? i.e., after 18 months.

No, the system can be purchased at any time, but the price will only decrease on the anniversary of your handover date. The purchase price does not decrease by days or months.

If we want to purchase the solar system outright at any stage, who do we speak with?

Contact the team at EnergyBuild:

P: 1300 983 668 E: info@energybuild.com.au W: www.energybuild.com.au

What happens if I sell my house?

The SolarPay agreement can be novated to the next owner by completing a SolarPay novation form. The new owner would then have access to the same discounted power until the term is completed. The system would then be transferred into the new owner's name at the end of the term.

What happens if I rent my house?

So long as the ownership of the home is unchanged, there is no charge. The tenant would have the option to buy discounted solar but no obligation to use it. There is no change to the end date of the agreement.

What items are included in the "SolarPay" system?

For the purposes of the SolarPay agreement, the system is the energy generation equipment including solar panels (Jinko) and solar inverter (SolaX).

How big is the standard SolarPay system?

6.6kW solar panel array on the roof paired with a 5kW single-phase solar inverter, however the homeowner has the option to increase the size of the system (8.3kW or 10.3kW) through the builder during their studio selections appointment.

What is the warranty period on the inverter and solar panels?

The solar inverter has a 10-year warranty, and the solar panels have a 20-year warranty and 30-year power guarantee.

If the solar panels or inverter stop working – who will repair them?

EnergyBuild will service the warranty, and all components are covered under their own manufacturer backed warranties.

What happens if the required number of panels (currently 16 x 415W) do not fit on my roof?

If we cannot fit the panels on the roof, you do not qualify for the SolarPay offer. However, you may still be able to purchase a smaller sized system from the builder.

What happens if my solar panels are damaged in a storm or stolen from my roof?

The panels are typically covered under the homeowner's standard home and contents insurance.

Can I choose my own power provider?

As the homeowner, you have the right to purchase discounted solar from the system but have no obligation to do so. If you wish to access the discounted power, you will need to keep your site power account with Powershop after you move in.

If you choose to buy power from another energy retailer, you won't have access to the solar power, but you will still receive the solar system at no cost after the 60-month term is complete.

There are no lock-in contracts for the supply of electricity. The SolarPay agreement does not require the homeowner to buy the discounted solar electricity.

Do we need to have an account with Powershop to access discounted electricity?

Yes. All accounts will be established with Powershop during construction. If the customer wishes to use the discounted power from the roof after handover, they keep the same Powershop account.

Alternatively, you are free to go to another electricity retailer after you move in, but you will not have access to the discounted solar electricity being generated from the solar system.

If a homeowner chooses to go with an alternative electricity retailer, it does not affect their ability to receive the system at no cost at the end of the 60-month term.

How much of a discount is offered by Powershop?

Discounts depend on your location and are subject to change.

Please visit www.powershop.com.au/solarpay to view discounts.

Who is Powershop?

Powershop are an electricity retailer in Australia and New Zealand. They are the largest electricity provider in NZ and their parent company, Meridian Energy, is part owned by the NZ government.

Have further SolarPay Questions?

Please be sure to visit www.solarpay.com for more information or contact EnergyBuild at info@energybuild.com.au or via phone on 1300 983 668.

Tiger Neo N-type 54HL4-(V) 410-430 Watt MONO-FACIAL MODULE

N-Type

Positive power tolerance of 0~+3%

IEC61215(2016), IEC61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



Key Features



SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



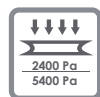
Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance.



Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

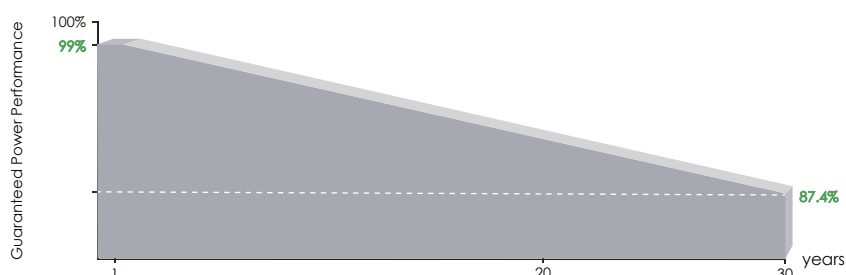


Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



LINEAR PERFORMANCE WARRANTY



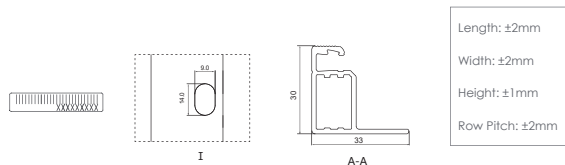
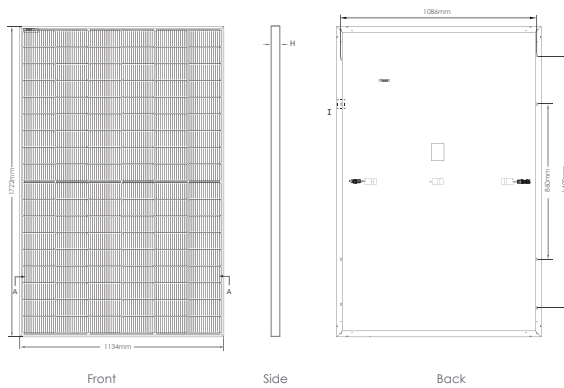
20 Year Product Warranty*

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

The product warranty is only applicable in Australia.

Engineering Drawings

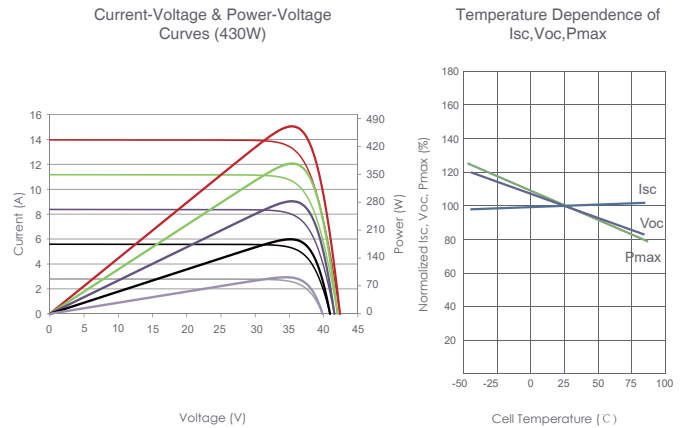


Packaging Configuration

(Two pallets = One stack)

36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (6×18)
Dimensions	1722×1134×30mm (67.79×44.65×1.18 inch)
Weight	22 kg (48.50 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm² (+): 400mm, (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM410N-54HL4 JKM410N-54HL4-V		JKM415N-54HL4 JKM415N-54HL4-V		JKM420N-54HL4 JKM420N-54HL4-V		JKM425N-54HL4 JKM425N-54HL4-V		JKM430N-54HL4 JKM430N-54HL4-V	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	410Wp	308Wp	415Wp	312Wp	420Wp	316Wp	425Wp	320Wp	430Wp	323Wp
Maximum Power Voltage (Vmp)	31.13V	29.06V	31.32V	29.21V	31.51V	29.34V	31.70V	29.50V	31.88V	29.63V
Maximum Power Current (Imp)	13.17A	10.61A	13.25A	10.68A	13.33A	10.76A	13.41A	10.83A	13.49A	10.91A
Open-circuit Voltage (Voc)	37.73V	35.84V	37.92V	36.02V	38.11V	36.20V	38.30V	36.38V	38.49V	36.56V
Short-circuit Current (Isc)	13.91A	11.23A	13.99A	11.29A	14.07A	11.36A	14.15A	11.42A	14.23A	11.49A
Module Efficiency STC (%)	21.00%		21.25%		21.51%		21.76%		22.02%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1000/1500VDC (IEC)									
Maximum series fuse rating	25A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.30%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.046%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									

*STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5
 NOCT: Irradiance 800W/m² Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

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SOLAX STRING INVERTER

ENGINEERED FOR SOLAR



X1-BOOST (SINGLE PHASE)

	X1-3.0T	X1-3.3T	X1-3.6T	X1-4.2T	X1-4.6T	X1-5.0T
INPUT (DC)						
Max.PV array power [Wp]	3250	3500	4000	4600	5200	5200
Max.DC voltage [V]	600	600	600	600	600	600
Nominal DC operating voltage [V]	360	360	360	360	360	360
Max. input current [A]	12/12	12/12	12/12	12/12	12/12	12/12
Max. short circuit current [A]	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8	12.8/12.8
MPPT voltage range[V]	70-580	70-580	70-580	70-580	70-580	70-580
Start operating voltage[V]	100	100	100	100	100	100
No. of MPP trackers	2	2	2	2	2	2
Strings per MPP tracker	1	1	1	1	1	1
OUTPUT AC						
Nominal AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Max. AC power [VA]	3000	3300	3680	4200	4600	5000 (4600 for VDE4105)
Nominal grid voltage(AC voltage range) [V]	220/230/240; 180~280					
Nominal grid frequency/range [Hz]	50/60; ±5					
Nominal AC current [A]	13	14.3	16	18.3	20	21.7 (20 for VDE4105)
Max. AC current [A]	14	15	16.8(16 for G98)	19	21	22.7 (21.7 for AS4777)
Displacement power factor	0.8 leading ~ 0.8 lagging					
THDi, rated power [%]	<2					
EFFICIENCY						
MPPT efficiency [%]	99.9					
Euro efficiency [%]	97.0					
Max. efficiency [%]	97.8					
POWER CONSUMPTION						
Standby consumption (Night) [W]	<1					
STANDARD						
Over voltage protection	YES					
Over current protection	YES					
DC isolation impedance monitoring	YES					
Ground fault current monitoring	YES					
DC injection monitoring	YES					
RCD protection	YES					
Safety	IEC62109-1/-2					
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					
Certification	VDE4105 /G98 / G99/ AS4777 / EN50549 / CEI0-21					
ENVIRONMENT LIMIT						
Degree of protection(according to IEC60529)	IP65					
Operating temperature range [°C]	-25~+60(derating at 45)					
Max. operation altitude [m]	2000					
Humidity [%]	0~100 (condensation)					
Storage temperature [°C]	-25~+60					
Typical noise emission [dB]	25					
DIMENSION AND WEIGHT						
Dimensions(WxHxD) [mm]	341.5*430*143					
Weight[kg]	13.5	13.5	13.5	14.5	14.5	14.5
Cooling concept	Natural					
Topology	Non-isolated					
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade					
LCD display	Yes					
Standard warranty [years]	5-10					



X1-SMART (SINGLE PHASE)

	X1-6.0	X1-7.0	X1-8.0
INPUT (DC)			
Max.PV array power [Wp]	3000/4000	3000/5000	3000/6000
Max.DC voltage [V]	550	550	550
Nominal DC operating voltage [V]	360	360	360
Max. input current [A]	11/22	11/22	11/22
Max. short circuit current [A]	12/24	12/24	12/24
MPPT voltage range[V]	100-500	100-500	100-500
Start operating voltage[V]	120	120	120
No. of MPP trackers	2	2	2
Strings per MPP tracker	1/2	1/2	1/2
OUTPUT AC			
Nominal AC power [VA]	6000	7000	8000
Max. AC power [VA]	6000	7000	8000
Nominal grid voltage(AC voltage range) [V]	220/230/240; 160-285		
Nominal grid frequency/range [Hz]	50/60; ±5		
Nominal AC current [A]	28	32	35
Max. AC current [A]	45		
Displacement power factor	0.8 leading... 0.8 lagging		
THDi, rated power [%]	< 3		
EFFICIENCY			
MPPT efficiency [%]	99.90		
Euro efficiency [%]	96.80		
Max. efficiency [%]	97.40		
POWER CONSUMPTION			
Standby consumption (Night) [W]	<1		
STANDARD			
Over voltage protection	YES		
Over current protection	YES		
DC isolation impedance monitoring	YES		
Ground fault current monitoring	YES		
DC injection monitoring	YES		
RCD protection	YES		
Safety	IEC62109-1/IEC62109-2		
EMC	EN 61000-3-2 / EN 61000-3-3 / EN 61000-3-11 / EN 61000-3-12 / EN 61000-6-1/ EN 61000-6-2 / EN 61000-6-3		
Certification	AS/NZS4777		
ENVIRONMENT LIMIT			
Degree of protection(according to IEC60529)	IP65		
Operating temperature range [°C]	-25~+60 (derating at 45)		
Max. operation altitude [m]	2000		
Humidity [%]	0~100, non condensing		
Storage temperature [°C]	-25~+60		
Typical noise emission [dB]	40		
DIMENSION AND WEIGHT			
Dimensions(WxHxD) [mm]	450*401*190		
Weight[kg]	22		
Cooling concept	Natural		
Topology	Non-isolated		
Communication interfaces	Pocket WiFi(optional)/Pocket LAN(optional)/Pocket GPRS(optional)/Meter(optional)/RS485/DRM/USB-Upgrade		
LCD display	Backlight 20*4 character		
Standard warranty [years]	5-10		



X3-MIC (THREE PHASE) *(T For Dual MPPT S For Single MPPT)*

X3-4.0-T

X3-5.0-T

X3-6.0-T

X3-7.0-T

X3-8.0-T

X3-9.0-T

X3-10.0-T

X3-4.0-S

X3-5.0-S

INPUT (DC)									
Max.PV array power [Wp]	5200	6500	7800	8400	9600	10800	12000	4800	6000
Max.DC voltage [V]	800	800	800	1000	1000	1000	1000	1000	1000
Nominal DC operating voltage [V]	600	600	600	600	600	600	600	600	600
Max. input current [A]	11/11	11/11	11/11	11/11	11/11	11/11	11/11	11	11
Max. short circuit current [A]	14/14	14/14	14/14	14/14	14/14	14/14	14/14	14	14
MPPT voltage range[V]	160-750	160-750	160-750	160-900	160-900	160-900	160-900	160-900	160-900
Start operating voltage[V]	180	180	180	180	180	180	180	180	180
No. of MPP trackers	2	2	2	2	2	2	2	1	1
Strings per MPP tracker	1	1	1	1	1	1	1	1	1
OUTPUT AC									
Nominal AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Max. AC power [VA]	4000	5000	6000	7000	8000	9000	10000	4000	5000
Nominal grid voltage(AC voltage range) [V]	3/N/PE, 3/PE, 230/400(310~480)						3/N/PE, 3/PE, 230/400(310~480)		
Nominal grid frequency/range [Hz]	50/60;±5						50/60;±5		
Nominal AC current [A]	5.8	7.2	8.7	10.1	11.6	13.0	14.5	5.8	7.2
Max. AC current [A]	6.4	8.0	9.6	11.2	12.8	14.4	16.0	6.4	8.0
Displacement power factor	0.8leading-0.8lagging						0.8leading-0.8lagging		
THDi, rated power [%]	<2						<2		
EFFICIENCY									
MPPT efficiency [%]	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
Euro efficiency [%]	97.8	97.8	97.8	98	98	98	98	97.8	97.8
Max. efficiency [%]	98.3	98.3	98.3	98.4	98.4	98.5	98.5	98.3	98.3
POWER CONSUMPTION									
Standby consumption (Night) [W]	<3						<3		
STANDARD									
Over voltage protection	YES						YES		
Over current protection	YES						YES		
DC isolation impedance monitoring	YES						YES		
Ground fault current monitoring	YES						YES		
DC injection monitoring	YES						YES		
RCD protection	YES						YES		
Safety	EN62109-1/-2						EN62109-1/-2		
EMC	EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3						EN61000-6-1;EN61000-6-2;EN61000-6-3;EN61000-3-2;EN61000-3-3		
Certification	AS4777; VDE4105; G98; G99; EN50549; CEI0-21						AS4777; VDE4105; G98; G99; EN50549; CEI0-21		
ENVIRONMENT LIMIT									
Degree of protection(according to IEC60529)	IP65						IP65		
Operating temperature range [°C]	-25~+60(derating at 45)						-25~+60(derating at 45)		
Max. operation altitude [m]	2000						2000		
Humidity [%]	0~100,condensing						0~100,condensing		
Storage temperature [°C]	-25~60						-25~60		
Typical noise emission [dB]	35						35		
DIMENSION AND WEIGHT									
Dimensions(WxHxD) [mm]	534*419*201						534*419*201		
Weight[kg]	30	30	30	30	30	30	30	28	28
Cooling concept	Natural						Natural		
Topology	Non-isolated						Non-isolated		
Communication interfaces	RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade					RS485/DRM/Pocket WiFi(optional)/Pocket LAN (optional)/Pocket GPRS (optional)/Meter (optional)/USB-upgrade			
LCD display	Backlight 20*4 character						Backlight 20*4 character		
Standard warranty [years]	5-10						5-10		

Start-Up & Shutdown Procedure and Maintenance Guidelines

SHUTDOWN SYSTEM

1. Turn off main DC isolator (if system has a battery system).
2. Turn off the solar array AC main switch (located in switchboard or next to the inverter).
3. In the case you have 2 AC switches, turn both to the off position.
4. Turn off the Solar array DC Main switch located next to the inverter.
5. Check the shutdown procedure labelled on the inverter or in main switchboard.

RESTART THE SYSTEM

1. Turn on Solar Array DC main switch located next to the inverter.
2. Turn on Solar AC main switch located in the switchboard and/or next to the inverter.
3. Turn on the main battery isolator (if there is a battery system).

MAINTENANCE OF SOLAR ARRAY

- If the angle of the PV module is 10° or more, normal rainfall is sufficient to keep the module glass surface clean under typical weather conditions.
- There are no user serviceable parts in the system.
- We recommend that your system is inspected by a Clean Energy Council Accredited Installer every two years.
- To confirm the operation of your system, check inverter display while the PV array is in full sunlight.

If you have any other questions regarding maintenance, please call us on **07 3002 1900** or email service.energy@energybuild.com.au.

Turning on the SolaX inverter:



1. In the main switchboard, locate the circuit breaker titled “Main supply (inverter supply)”. If it isn’t already on, turn it on now.



2. Inside the inverter enclosure, you’ll find the DC isolator switch. Simply cut the cable tie and turn the switch on.



3. The inverter will start up, and the screen will say “checking”. After a few seconds, it will then countdown from 120. After the countdown, the inverter will show “normal”, and the PAC number will rise. This is the solar’s current production.

Turning on the SolaX inverter (continued):



Grid Loss Fault: This typically means that something is not switched on. Complete the shutdown procedure that is labelled on the inverter and then re-complete these steps.

If an error message continues, send through photos of the inverter and the switchboard to service.energy@energybuild.com.au or call 07 3002 1900.