

**STODDART GROUP**

**STODDART ENERGY SYSTEMS PTY LTD**

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## Welcome

Dear homeowner,

Stoddart Group would like to congratulate you on your new home and solar system!

These packs include:

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

When you are organising your electricity account for your new home, make sure to inform them you have solar installed! We are here to assist from the moment you begin generating solar power. If at any time you have queries regarding your solar system, need advice on how to best maximise solar production or want to improve usage through battery storage, please give us a call on **1300 983 668** or email [service.energy@stoddarts.com.au](mailto:service.energy@stoddarts.com.au) .

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

Kind regards,

Stoddart Group

# Cheetah HC 60M 325-345 Watt

MONO PERC HALF CELL MODULE

Positive power tolerance of 0~+3%

- Half Cell
- Mono PERC 60 Cell



PERC



## KEY FEATURES



### 5 Busbar Solar Cell

5 busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



### High Efficiency

Higher module conversion efficiency (up to 20.45%) benefit from half cell structure (low resistance characteristic).



### PID Resistance

Excellent Anti-PID performance guarantee limited power degradation for mass production.



### Low-light Performance

Advanced glass and cell surface textured design ensure excellent performance in low-light environment.



### Severe Weather Resilience

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



### Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance certified by TUV NORD.

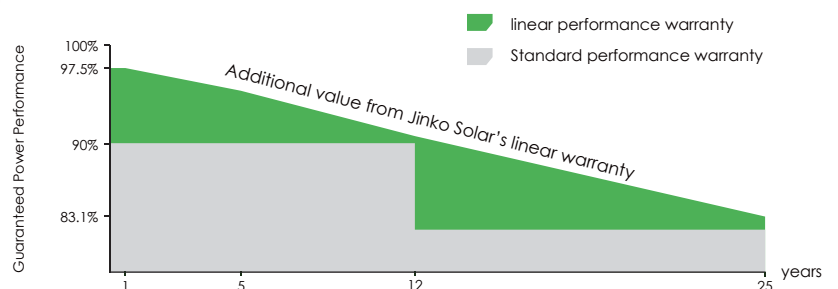


## LINEAR PERFORMANCE WARRANTY

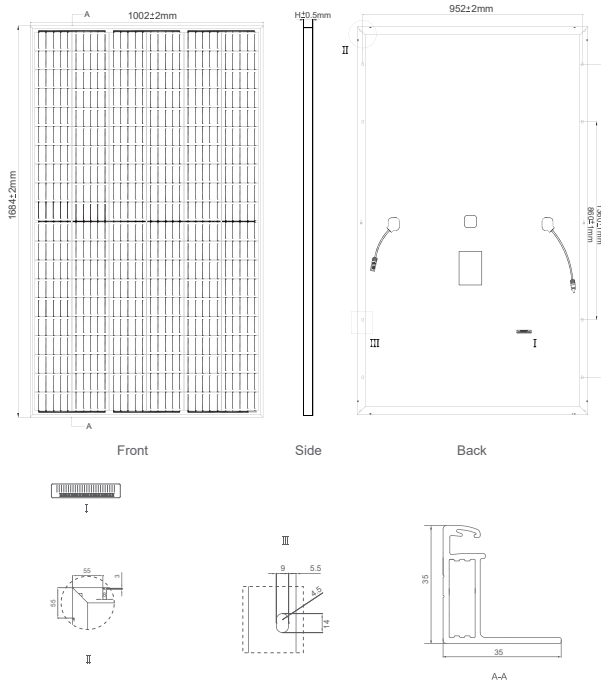
12 Year Product Warranty • 25 Year Linear Power Warranty



- ISO9001:2008, ISO14001:2004, OHSAS18001 certified factory
- IEC61215, IEC61730, UL1703 certified product



## Engineering Drawings



## Packaging Configuration

( Two pallets = One stack )

31pcs/pallet, 62pcs/stack, 806pcs/40'HQ Container

## SPECIFICATIONS

Module Type	JKM325M-60H		JKM330M-60H		JKM335M-60H		JKM340M-60H		JKM345M-60H	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	325Wp	242Wp	330Wp	246Wp	335Wp	250Wp	340Wp	253Wp	345Wp	257Wp
Maximum Power Voltage (Vmp)	33.6V	31.6V	33.8V	31.8V	34.0V	32.0V	34.2V	32.2V	34.4V	32.4V
Maximum Power Current (Imp)	9.68A	7.66A	9.77A	7.74A	9.87A	7.82A	9.96A	7.86A	10.04A	7.94A
Open-circuit Voltage (Voc)	41.1V	38.0V	41.3V	38.2V	41.5V	38.4V	41.7V	38.6V	41.9V	38.8V
Short-circuit Current (Isc)	10.20A	8.54A	10.31A	8.65A	10.36A	8.74A	10.55A	8.86A	10.64A	8.97A
Module Efficiency STC (%)	19.26%		19.56%		19.85%		20.15%		20.45%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum System Voltage	1000VDC (IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.36%/°C									
Temperature Coefficients of Voc	-0.28%/°C									
Temperature Coefficients of Isc	0.048%/°C									
Nominal Operating Cell Temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m<sup>2</sup>

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m<sup>2</sup>

Ambient Temperature 20°C

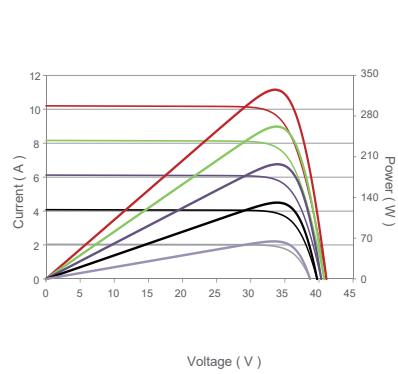
AM=1.5

Wind Speed 1m/s

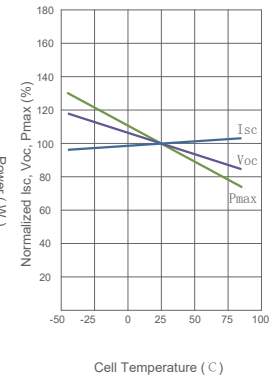
\* Power measurement tolerance: ± 3%

## Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (325W)



Temperature Dependence of Isc, Voc, Pmax



## Mechanical Characteristics

Cell Type	Mono PERC 158.75×158.75mm
No. of Half-cells	120 (6×20)
Dimensions	1684×1002×35mm (66.30×39.45×1.38 inch)
Weight	19.0 kg (41.9 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP67 Rated
Output Cables	TÜV 1x4.0mm <sup>2</sup> , (+) 290mm, (-) 145mm or Customized Length
Connectors	Genuine MC4. JK03M available as an option. Custom cable length is 1000mm

The company reserves the final right for explanation on any of the information presented hereby. JKM325-345M-60H-A2-EN

Made in China. Production from Vietnam and Malaysia available as an option.



# LIMITED WARRANTY

REV. 050114-LINEAR [\(AUS\)](#)

JINKO SOLAR AUSTRALIA HOLDINGS CO. PTY LTD (“**Jinko**”) generally provides the Warranties set forth herein to the original purchaser and its permitted successors and assigns (“**Customer**”) with respect to all solar photovoltaic modules sold by Jinko under purchase agreements signed on or after May 1, 2014 (“**Modules**”), subject to the terms and conditions herein (“**Limited Warranty**”). Jinko and Customer may hereinafter be referred to each as a “**Party**” and collectively as the “**Parties**”.

1. **WARRANTY START DATE.** Jinko provides the Warranties set forth herein commencing upon the earlier of delivery of Modules to the original purchaser thereof or that date which is one hundred and eighty (180) days following the Module manufacture date, as indicated by the serial number [digit no. 7 – 12 (YYMMDD), starting from the left side of the serial number] for such Module (“**Warranty Start Date**”).

2. **LIMITED PRODUCT WARRANTY.** Beginning on the Warranty Start Date and terminating on that date which is one hundred and twenty (120) months thereafter, Jinko warrants that the Modules and their respective DC connectors and cables, if any, shall be free from material defects in design, materials and workmanship that affect the performance of the Module (“**Limited Product Warranty**”). Material defects shall not include normal wear and tear.

3. **LIMITED POWER WARRANTY.** Jinko warrants that the Degradation Rate shall not exceed the following for the periods identified following the Warranty Start Date: (a) for mono-crystalline Modules: (i) 3.0% in the first year; (ii) 0.7% each year thereafter until that date which is twenty-five (25) years following the Warranty Start Date, at which time the Actual Power Output shall be not less than 80.2% of the

Nominal Power Output; and (b) for poly-crystalline Modules: (i) 2.5% in the first year; (ii) 0.7% each year thereafter until that date which is twenty-five (25) years following the Warranty Start Date, at which time the Actual Power Output shall be not less than 80.7% of the Nominal Power Output (“**Limited Power Warranty**”).

4. **POWER DEFINITIONS.** “**Nominal Power Output (PO<sub>0</sub>)**” means the original manufactured nameplate specification of the Module, expressed in Watts, as certified by Jinko and indicated on the Module, excluding any specified positive tolerance. “**Actual Power Output (PO<sub>t</sub>)**” means the power output of the Module, expressed in Watts, at Watt peak that a Module generates at a given point in time in a year after the Warranty Start Date (**t**) in its ‘Maximum Power Point’ under Standard Test Conditions, corrected for any measurement error (“**STC**”). STC are as follows, measured in accordance with IEC 61215: (a) light spectrum of AM 1.5; (b) an irradiation of 1000W per m<sup>2</sup>; and (c) a cell temperature of 25 degrees centigrade at right angle irradiation. The “**Degradation Rate (DR)**” shall be any positive amount calculated in accordance with the following formula, expressed as a percent:

$$DR = 1.00 - [(PO_t) / (PO_0)]$$

5. **CLAIMS.** Customer shall bear the burden of establishing a breach of the Warranties hereunder. If Customer believes there has been a breach of the Limited Product Warranty or Limited Power Warranty (collectively, “**Warranties**”), then Customer shall promptly, and not later than thirty (30) days after knowledge thereof, provide notice to Jinko setting forth the following information related to the claim: (a) party making claim; (b) detailed description; (c) evidence, including photographs



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and data; (d) relevant serial numbers; (e) Warranty Start Date; (f) Module type; (g) physical address; (h) any additional evidence reasonably requested by Jinko; and (i) upon request from Jinko, the actual Module(s) allegedly causing the breach. Notwithstanding anything to the contrary herein, Jinko shall be entitled, in Jinko's sole discretion upon written notice to Customer, to require that any breach of the Warranties alleged by Customer be reviewed by TÜV Rheinland, TÜV SUD or other neutral third party testing laboratory selected by Jinko and approved by Customer, such approval not to be unreasonably withheld or delayed ("**Independent Testing Lab**"). The power measurement tolerance of any testing equipment utilized by any Independent Testing Lab in performing tests required by this Section 5 shall be disclosed in writing to both Parties prior to performance of any such tests and shall be reflected in any final test results provided by the Independent Testing Lab. The determination by an Independent Testing Lab as to whether a breach has occurred shall be final and conclusive with respect to the matters covered by such determination. Jinko shall be responsible for all costs incurred by it in connection with the shipment by Customer of a Module pursuant to Section 5(i) hereto and any Independent Testing Lab's services provided pursuant to this Section 5, including shipping, testing services, storage, insurance and any Module destruction incidental thereto; provided, however, Customer shall promptly upon receipt of notice indemnify Jinko for all such costs on a dollar-for-dollar basis in the event the Independent Testing Lab is unable to confirm a breach of the Warranties or Customer is otherwise unable to establish a breach of the Warranties.

6. REMEDIES. In Jinko's sole discretion, Jinko shall repair, replace or provide additional

modules compensating for the related power loss for any Module which causes a breach of the Warranties. Additional, repaired or replacement Modules shall be delivered to the same destination and on the same INCOTERMS 2010 delivery basis that the original Module causing breach of the Warranties was delivered under the purchase agreement to which this Limited Warranty applies. Replaced Modules received by Jinko pursuant to Section 5 shall be the sole property of Jinko. Jinko shall be solely responsible for all shipping costs incurred performing its additional supply, repair or replacement obligations under this Section 6. Additional or replacement Modules shall be of the same type and physical form as the original Module, electrically compatible with the original Module, and have an electrical output of not less than the warranted power output of the original Module at the time of supply or replacement, based on the warranted degradation rates set forth at Section 3 hereto. Notwithstanding the foregoing, if Jinko no longer supplies Modules meeting the foregoing criteria, then additional or replacement Modules provided under this Section 6 shall be those Modules then supplied by Jinko most substantially meeting the foregoing criteria. Jinko's performance of any repair, replacement or additional supply pursuant to this Section 6 shall not extend the term of any Warranties.

7. EXCLUSIONS. This Limited Warranty is subject to the exclusions set forth in this Section 7. The Warranties shall not apply to any Module which has been: (a) altered, repaired or modified without the prior written consent of Jinko or otherwise inconsistent with Jinko's written instructions; (b) removed and re-installed at any location other than the physical location in which it was originally installed following purchase by Customer or receipt from Jinko as a replacement Module; (c) subject to misuse,



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abuse, neglect, or accident except as may be caused by Jinko in the course of storage, transportation, handling, installation, application, use or service; (d) subject to force majeure, electrical surges, lightning, flood, fire, vandalism, tampering, accidental breakage, or other events beyond Jinko's control, resulting in material damage to the Module; (e) installed on mobile platforms (other than single- or dual-axis trackers) or in a marine environment; (f) subject to direct contact with corrosive agents or salt water; pest damage; or malfunctioning PV system components; or (g) used in a manner inconsistent with the version of Jinko Installation Manual available at [www.jinkosolar.com](http://www.jinkosolar.com) on the date the Module is manufactured. The Warranties shall not apply to any Module for which the labels thereon indicating type or serial number have been altered, removed or made illegible. The Warranty shall not apply to Modules for which full and final payment has not been received by Jinko.

8. NOTICE. Any notice required or permitted under this Limited Warranty shall be in writing and deemed to be properly given by the sender and received by the addressee. Mailed notices and facsimile notices shall be addressed to the Jinko office located closest to the place of original installation, as identified at [www.jinkosolar.com/contact.html](http://www.jinkosolar.com/contact.html). Notices by e-mail should be sent to [cs@jinkosolar.com](mailto:cs@jinkosolar.com). Customer shall promptly provide contact information upon request. For the avoidance of doubt, e-mail alone shall not constitute valid notice pursuant to this Section 8.

9. LIMITS OF LIABILITY. **NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS LIMITED WARRANTY, EXCEPT AS EXPRESSLY PROVIDED HEREIN, JINKO MAKES NO WARRANTIES, GUARANTEES OR CONDITIONS, EXPRESS OR**

**IMPLIED, ARISING FROM OR RELATING TO THE MODULES AND JINKO DISCLAIMS ANY WARRANTY OR GUARANTEE IMPLIED BY LAW, INCLUDING IMPLIED WARRANTIES OF PERFORMANCE, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND IMPLIED WARRANTIES OF CUSTOM OR USAGE, ARISING FROM OR RELATING TO THE MODULES. THE REMEDIES FOR BREACH OF THIS WARRANTY ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES ARISING FROM OR RELATING TO ANY BREACH OF THE WARRANTIES. IN NO EVENT SHALL JINKO BE RESPONSIBLE PURSUANT TO THIS WARRANTY FOR ANY PERFORMANCE ANALYSIS, INSPECTION, DIAGNOSIS, REMOVAL, CUSTOMS, IMPORT DUTIES, EXPORT DUTIES, TAXES, REINSTALLATION COSTS, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING LOSSES OR DAMAGES CAUSED BY REASON OF LOSS OF USE, LOSS OF PROFITS OR REVENUE, INTEREST CHARGES (EXCEPT AS EXPRESSLY PROVIDED HEREIN), LOSS OF BONDING CAPACITY, COST OF CAPITAL OR CLAIMS OF CUSTOMER DAMAGES, WHETHER LIABILITY ARISES AS A RESULT OF BREACH OF CONTRACT, TORT LIABILITY (INCLUDING NEGLIGENCE), STRICT LIABILITY, BY OPERATION OF LAW OR IN ANY OTHER MANNER. EXCEPT AS SET OUT IN THIS LIMITED WARRANTY, JINKO SHALL HAVE NO RESPONSIBILITY OR LIABILITY WHATSOEVER FOR DAMAGE OR INJURY TO PERSONS OR PROPERTY, OR FOR OTHER LOSS OR INJURY RESULTING FROM ANY CAUSE WHATSOEVER ARISING OUT OF OR RELATED TO THIS LIMITED WARRANTY.** Notwithstanding the above, the following statement applies to Customers, who matches the definition of "Consumers" under the **Australian Consumer Law**: "Our goods come with guaranties that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and





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compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure."

10. ASSIGNMENT. Notwithstanding anything to the contrary herein, this Limited Warranty is for the sole and exclusive benefit of Customer and there are no third party beneficiaries hereof; provided, however, subject to written notice to and Jinko's receipt of full and final payment for the Modules, this entire Limited Warranty may be assigned in whole but not in part to any person or entity. Any permitted assignee of this Limited Warranty shall execute such agreements as may reasonably be requested by Jinko to confirm the applicability of any term hereof as a condition to assignment.

11. LAW AND FORUM. Any dispute related to or arising out of this Limited Warranty, including without limitation any question regarding its existence, validity, breach, or termination, shall be referred to and finally resolved pursuant to the governing law clauses and dispute resolution procedures under the purchase agreement between the original purchaser and Jinko. As a condition to any obligation of Jinko hereunder, Jinko may require any Customer seeking to enforce this Limited Warranty to execute such additional agreements as may reasonably be required to enforce the terms of this Section 11.

12. MERGER CLAUSE. This Limited Warranty sets forth the entire agreement and understanding of the Parties relating to the subject matter herein and supersedes all prior or contemporaneous discussions, understandings and agreements, whether oral or written, between them relating to the subject matter hereof.

13. SEVERABILITY. If one or more provisions of this Limited Warranty are held to be unenforceable under applicable law, the Parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Limited Warranty, (b) the balance of this Limited Warranty shall be interpreted as if such provision were so excluded and (c) the balance of the this Limited Warranty shall be enforceable in accordance with its terms.

14. MISCELLANEOUS. The terms of this Limited Warranty are conditioned upon their incorporation in a contractual agreement between Jinko and Customer and are subject to modification when incorporated therein. Jinko reserves the right to modify or rescind this Limited Warranty at any time, with or without notice.

[END OF LIMITED WARRANTY]

# Single phase Dual MPPT inverters **X1-Boost**



**Simple.  
Reliable.  
Efficient**



High  
Efficiency



Wide Voltage  
Range



'Smart Plug'  
Load Control



Remote  
Monitoring

## **X1-3.0-T / X1-3.3-T / X1-3.6-T X1-4.2-T / X1-5.0-T**

SolaX have developed a range of single phase inverters unrivalled in the industry for their quality, reliability and efficiency. The SolaX single phase inverters boast a wide MPPT voltage range to allow for more energy harvesting and have a maximum input voltage of 580V, with a maximum efficiency of 97.6%. In addition, SolaX single phase muffins are IP65 rated, have no internal fan and come with optional 'plug & play' WIFI. The dual MPPT 'Boost' range is also compatible with the new SolaX 'Smart Plug' which allows for device remote control.







# X1-BOOST (SINGLE PHASE)

	X1-3.0T	X1-3.3T	X1-3.6T	X1-4.2T	X1-4.6T	X1-5.0T
<b>INPUT (DC)</b>						
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
<b>OUTPUT AC</b>						
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					
<b>EFFICIENCY</b>						
MPPT efficiency [%]	99.9					
Euro efficiency [%]	97.0					
Max. efficiency [%]	97.8					
<b>POWER CONSUMPTION</b>						
Standby consumption (Night) [W]	<0					
<b>STANDARD</b>						
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					
<b>ENVIRONMENT LIMIT</b>						
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					
<b>DIMENSION AND WEIGHT</b>						
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					



# SolaX Power PV Inverters

## Solax Power Warranty Terms & Conditions

### Administered by SolaX Power Co., Ltd.

This policy governs the exchange program for **Stoddart Group/SolaX Power PV inverters** (“inverters”) covered by SolaX Power’s warranty (the “**Exchange Program**”). Parties wishing to participate in the Exchange Program must abide by the procedures and requirements set forth in this policy. SolaX Power may, in its sole discretion, reject the exchange of any inverter not returned in accordance with this policy.

#### 1. Warranty Claims

The standard warranty period for inverters supplied in Australia is **120 months**.

PLEASE NOTE, THIS WARRANTY POLICY COVERS SOLAX INVERTERS ONLY. WHERE BATTERIES ARE SUPPLIED WITH A SOLAX INVERTER PLEASE REFER TO THE TERMS OF THE WARRANTY PROVIDED BY THE RELEVANT MANUFACTURER. THIS WARRANTY IS LIMITED TO THE SOLAX INVERTER RANGE ONLY AND DOES NOT COVER ANY EXTERNAL OR ANCILLIARY PARTS. ANY ANCILLIARY PARTS OR ADD-ON DEVICES SUPPLIED BY SOLAX (INCLUDING BUT NOT LIMITED TO: POCKET-WIFI, POCKET-LAN, BREAKERS, CABINET FOR POWER STATION AND METERS) ARE COVERED BY A SEPARATE 12 MONTHS PRODUCT REPLACEMENT WARRANTY.

The warranty period commences from the date on which the inverter is commissioned by the installer or customer’s agent. An extended warranty period may be available for purchase within 36 months from commissioning for an **additional 120 months** (see Section 9 for information relating to the warranty extension). For non-registered products, the warranty effective after the date of invoice commencing, 6 month after the production date or starting from the day of the successful completion of the commissioning, whichever comes earlier. Exchange services apply only to inverters within their warranty period or extended warranty period, as applicable.

The Warranty is applied to the original SolaX product purchaser, and is transferable only if the product remains installed in the original use location. This warranty policy will apply only to inverters installed by a suitably qualified professional. The warranty policy will be rendered invalid where inverters are sold second hand through unlicensed sales channels. To transfer the warranty ownership, please contact SolaX at [service@solaxpower.com](mailto:service@solaxpower.com) with the authorization email from the previous owner.

Please note: If you are a private end-user, please contact your installer in the first instance. SolaX Power will work directly with the installer to replace a faulty inverter if deemed eligible under the terms of the Exchange Program. The warranty policy outlined in this document represents a product replacement warranty, and does not cover the costs

of installation and commissioning (beyond the compensation scheme available to installers outlined in section 6). If the original installation company has ceased trading, please contact a suitably qualified installer to arrange an on-site inspection.

### **Hybrid Off-Grid Installations**

The X-Hybrid range of inverters is a grid-tied inverter range with off-grid functionality. Where this inverter is installed in a completely off-grid setting, owing to unpredictable and potentially irregular operating patterns, SolaX Power require that off-grid installations are inspected annually by a suitably qualified technician and that documented evidence of the inspection is kept on record. Failure to adequately maintain the equipment in the manner described may invalidate any warranty claims.

## **2. Limited Liability**

Subject to the conditions set out below SolaX Power warrants that the goods will correspond substantially with their specification at the time of delivery and will be free from material defects.

2.1 In the event of damages related to the causes listed below, no warranty claims will be acknowledged or accepted. Claims that relate to defects that are caused by the following factors are not covered by SolaX Power's warranty obligations:

- a. Force majeure (storm damage, lightning strike, overvoltage, fire, thunderstorm, flooding etc.)
- b. Improper or noncompliant use.
- c. Improper installation, commissioning, start up or operation (contrary to the guidance detailed in the installation manual supplied with each product).
- d. Inadequate ventilation and circulation resulting in minimized cooling and natural air flow
- e. Installation in a corrosive environment
- f. Damage during transportation
- g. Unauthorized repair attempts
- h. Failure to adequately maintain the equipment. An on-site inspection by a suitably qualified technician is required following sixty months of continuous use. Warranty claims made beyond 120 months from the date of commissioning may be declined if it cannot be demonstrated that the equipment has been maintained adequately.
- i. Failure to register the warranty as required under this policy (outlined in section 10). Warranties must be registered no more than six weeks from the date of commissioning. Any attempt to register the warranty beyond the six-week registration period (without written consent from SolaX Power) will invalidate any warranty claims. SolaX Power may request to see documented evidence where they suspect that a warranty was registered more than six weeks following the commissioning date.
- j. In the event that the inverter display (a standard feature on certain SolaX products) ceases to function, but where



the inverter is otherwise operating normally, SolaX may not issue a replacement product where the display/programming features available on the display can be viewed/set on external devices using software supplied by SolaX Power.

k. Unauthorized removal and reinstallation.

This warranty does not extend to parts materials or equipment not manufactured by SolaX Power in respect of which the customer shall only be entitled to the benefit of any such warranty or guarantee as is given by the manufacturer to SolaX Power.

This Warranty does not cover cosmetic or superficial defects, dents, marks or scratches, which do not influence the proper functioning of the product.

Claims by buyer that go beyond the warranty terms set out herein, are not covered by the Warranty, insofar as SolaX is not subject to statutory liability. In such cases, please contact the company that sold the product. Eventually claims in accordance with the law on product liability remain unaffected.

SolaX Power shall be under no liability under this warranty (or any other warranty condition or guarantee) if the total price for the goods has not been paid by the due date for payment.

If the entire device is replaced under Warranty, the remainder of the Warranty period will be transferred to the replacement product. If the product components are replaced or repaired under this Warranty, the components used will be covered by the same remainder of the Warranty period as the repaired product.

### **3. Product Repairing On-Site**

If SolaX decides to repair the defective device on site (repair by SolaX or the technical engineer that authorized by SolaX), then SolaX will bear the costs for materials and labor to repair the product as well as the costs for removal and replacement of the part or replacement device. No other costs – including, but not limited to, transportation, inspications, customs duties, costs to safely access devices installed on slanted rooftops, or lift equipment, travel or accommodation costs, the costs of the customer's own employees, or the costs of third-parties that have not been authorized by SolaX.

### **4. Exchange Service**

Any inverter qualifying for exchange within the warranty period will be replaced with a new or refurbished inverter, subject to the terms and conditions detailed within this document being adhered to. The following items must be made available to SolaX Power for an exchange to be effected under this policy:

Inverter data including:

1. Product model
2. Product serial number
3. Failure code
4. Failure comment



Documentation including:

1. Copy of original purchase invoice.
2. Valid warranty certificate
3. Detailed information about the entire systems (e.g. system schematic)
4. Documentation of previous claims/exchanges (if applicable)

**SolaX Power reserves the right to refuse exchange requests where adequate information is not provided.**

To request the replacement of an Inverter, you must contact the SolaX Power Service Center.

Email: [service@solaxpower.com](mailto:service@solaxpower.com)

Call: 1300 476 529 Monday to Friday from 8:30am to 5:30pm (excluding public holiday).

#### **5. SolaX Power Responsibility**

Upon receipt of the required information listed in Section 3, and after attempts to correct the problem with the customer's assistance, SolaX Power will assign a unique case number to the customer. This number shall be used in reference for all communications regarding the exchange. SolaX Power will dispatch a replacement inverter within 3 working days to the specified customer or installer location. Following the receipt of the replacement inverter, the customer must return the allegedly faulty Inverter in the same packaging material as the replacement inverter. SolaX Power will supply all labels, documentation and freight details for the return of the allegedly faulty inverter. All allegedly faulty inverters must be returned within 10 (ten) working days of the receipt of the replacement inverter. A qualified installer must be available for the inverter exchange and re-commissioning. The replacement inverter will be covered by the original warranty terms of the faulty inverter for the remaining warranty period of the original (faulty) inverter.

#### **6. Installer Responsibility**

In the event of an equipment failure or fault, it is the responsibility of the installer to work directly with the SolaX Power Service Center in order to limit the return of non-faulty equipment. The SolaX Power Service Center will work with the installer to rectify the fault or fault message through telephone support or with direct PC links. Note: To qualify for further compensation and a replacement unit, the installer must first contact the SolaX Power Service Center and fulfill the installer's responsibilities under Section 3 of this document.

During inspection by SolaX Power, if the allegedly faulty inverter is found by SolaX Power to be ineligible for exchange under this policy, the installer must provide proof of a valid warranty for the inverter, a correctly issued, and a valid case number for the inverter (as provided by the SolaX Power Service Center). The installer must ensure the return of the suspect equipment prior to reimbursement from SolaX Power. In all instances, the installer must send these items to:

---

SolaX Power Co., Ltd. Room 506, Block A (West), Zhejiang University Science and Technology Park, No. 525, Xixi Rd, Hangzhou, Zhejiang, China, 310007.

### **7. Inspection Charge for Inverters Not Found Defective**

If an allegedly faulty Inverter is returned to SolaX Power pursuant to this Policy, and is found by SolaX Power to be free of defects that would qualify it for replacement under this policy, or due to limited liability as stated in clause 2, SolaX Power reserve the right to apply a flat-rate inspection charge for each Inverter of USD 100.00, plus shipping and packaging costs.

### **8. Inverter Replacement Procedure**

SolaX Power must be provided with the relevant documentation as shown in Section 3. This procedure must be followed for a warranty claim to be applicable under this Exchange Program.

- a) The installer must contact the SolaX Power Service Centre and supply the required information as shown in Section 3. As outlined in Section 5, the installer will liaise with SolaX Power Service Centre to try and find a solution without the need to exchange the inverter.
- b) If the inverter is deemed faulty and is eligible for the Exchange Program, SolaX Power will raise and create a case number for the inverter and communicate this with the installer.
- c) SolaX Power will dispatch a replacement inverter within 3 working days of the case number being created. The inverter will be shipped to the specified customer or installer location at SolaX Power's cost.
- d) The installer will install the replacement inverter and use the packaging to repack the faulty inverter.
- e) SolaX Power will cover the costs of collection and shipment of the faulty inverter back to SolaX Power as detailed in Section 4, and buyer shall bear any applicable value added tax. The customer or installer must assist with this shipping. If the faulty inverter is not returned within 10 working days of receiving the replacement inverter installation, SolaX Power will invoice the relevant installer for the cost of the inverter.

### **9. Warranty Extension**

The SolaX inverter range is eligible for a warranty extension of 120 months (taking the maximum warranty period to 20 years from the point of commissioning). The warranty extension is available for purchase up to 36 months from the commissioning date of the inverter.

### **10. Warranty Registration**

It is a requirement that all inverters are registered in order that they qualify under the terms of the Exchange Program. It is a requirement that all suppliers/installers provide the private end-user with the relevant warranty registration certificate, and it is a requirement that the end-user (or the installer on behalf of their customer) register the warranty at the relevant address on the Solax website (as specified on the registration certificate), at which point a full warranty certificate is issued. Warranties must be registered **no more than six weeks** following the date of commissioning. The information required at the point of registration is as follows:



- a. Inverter model
- b. Inverter serial number
- c. Installation date
- d. Customer name
- e. Installation post code
- f. Full installation address
- g. Name of installation company

In the case of extended warranties, in addition to the information required above, it is also necessary to enter a unique identifier found on the extended warranty registration certificate. Without this reference number, it will only be possible to register the inverter for the standard 120 months' warranty period.

Upon receipt of the registration request, SolaX will issue a full warranty certificate to the customer by email within seven working days.

#### **11. Consumer Law**

The Warranty is subject to the law of Australian State. Products come with guarantees that cannot be excluded under the Australian Consumer Law. The consumer is entitled to a replacement for a major failure and compensation for any other reasonably foreseeable loss or damage. The consumer is also entitled to have the goods repaired or replaced if the products fail to be of acceptable quality and the failure does not amount to major failure. The benefits to the consumer given by the warranty are in addition to any other rights and remedies of the consumer under a law in relation to the goods or services to which the warranty related.



# PV-ezRack SolarRoof

Reliable, robust roof mounting system with high quality components designed for the harshest conditions.



# PV-ezRack SolarRoof

PV-ezRack SolarRoof has been developed for residential PV installations on tin and tile roofs. The components are easy to install and can be used for flush as well as tilted systems, on a large variety of roof types. The interfaces, rails and clamps use high quality, robust and corrosion resistant materials including structural grade aluminium alloy (AL6005-T5) and stainless steel (SUS304).

## Main Benefits

### Quick and easy installation

Innovative and internationally patented, the Z-Module technology is used in almost all SolarRoof components. The Z-Module provides a quick, easy and safe installation method. It can be inserted in to the rail at any given point, and secured with just three hand grips.

### Versatility

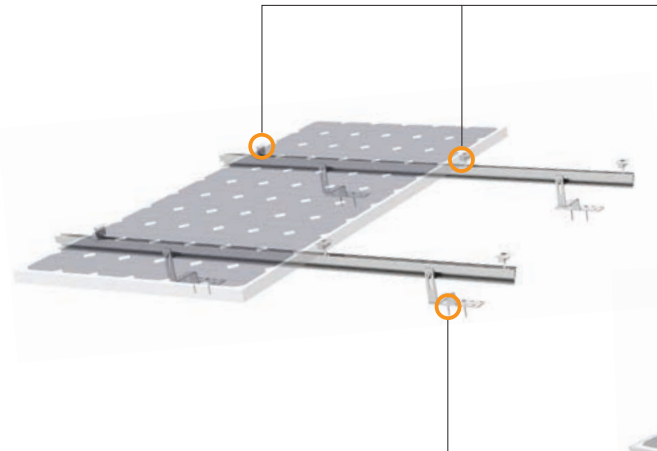
A large variety of roof hooks, tin roof fixings, tilt legs and adapters help ensure that you will find a suitable fixing method for almost every roof, where fixing with or without penetration is required.

### Wide range of tilting

With three adjustable tilt legs, these parts can tilt panels from between 10-60 degrees. Through its innovative design, the tilt legs can cope with all common purlin distances.

### Universal

SolarRoof has suitable mid and end clamps for every size of solar panel including frameless, thin film panels or special clamps for cyclonic regions. In the growing range of clamps, cable clips, adapters and accessories you're sure to find the parts you require for your residential rooftop mounting needs.



### Tile interface

SolarRoof has high quality stainless steel roof hooks which are suitable for most types of tiled roofs. Side mounted or landscape tile interfaces can be used to cater for special mounting needs. Roof hook extenders are also part of the range for installations on high corrugation tiles such as Spanish tiles.



ER-IC-ST ER-EC-ST

### Inter and End clamps

The PV-ezRack Inter and End clamps offer a simple, easy to use and robust fixing of the PV panels (of all sizes) using the patented Clenergy Z-module. Compatible clamps for thin film modules are also available.



### Adjustable tilt legs

One of Clenergy's first innovations, this universal design allows a wide range of tilt angles with only one component. The tilt leg is made entirely of structural grade aluminium profiles connected with stainless steel fasteners.



ER-TL-10/15

ER-TL-15/30

ER-TL-30/60

The available adapters, non-penetration clamps and base rails make the application of this part truly universal.



ER-R-ST

### ST-Rail

Specifically developed to achieve larger spans, the SolarRoof standard rail has reduced the number of required fixings. The ST-rails have two patented Z-Module channels with one at top for panel mounting and the second on side for connecting to the roof interface. The standard rail comes in 2560, 3150, 3405 and 4200mm lengths.



ER-I-05

### Tin interface

The robust aluminium L-feet, which provides a height adjustment of almost 30mm, is designed for corrugated and trimdek type tin roofs. It comes with a Z-Module plus bolt preassembled, with a screw which includes bonded sealing washer plus an EPDM rubber pad.

## Available accessories

### Grounding/earthing



### Cable clips



### Isolator bracket



### Rail caps



## Materials

AL6005-T5 | SUS304

Contact us or one of our qualified resellers for a personalised quotation today.

10 Year Warranty\*

Commercial

Residential

International Patent  
PCT/AU2009/000616

\*see Clenergy PV-ezRack warranty for further details

**Clenergy**  
Innovating renewable energy





## Worldwide network



### Clenergy Australia

Unit 11, 20 Duerdin St, Clayton VIC 3168, Australia  
 Tel: +61 3 9239 8088 Fax: +61 3 9239 8024  
 E-mail: sales@clenergy.com.au www.clenergy.com.au

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 Tel: +1 858 790 8066  
 E-mail: sales@clenergy.us www.clenergy.us

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 Tel: +86 592 311 0088 Fax: +86 592 599 5028  
 E-mail: sales@clenergy.com.cn www.clenergy.com.cn

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 Northampton, NN7 3DB, UK  
 Tel: +44 1604 857 674 Fax: +44 1604 858 620  
 E-mail: sales\_uk@clenergy.com www.clenergy.uk.com

### Clenergy Japan

SOHO STATION 401, 24-8 Yamashita-cho, Naka-ku  
 Yokohama, 231-0023 Japan  
 Tel: +81 45 228 8226 Fax: +81 45 228 8316  
 E-mail: sales@clenergy.co.jp www.clenergy.jp

### Clenergy Malaysia (Regional Office)

Suite 21, E111, Block E, Phileo Damansara, I No 9 Jalan 16/11,  
 Off Jalan Damansara, 46350 Petaling Jaya, Selangor, Malaysia  
 Tel: +60 3 7493 5186 Fax: +60 3 7493 5100  
 E-mail: sales@clenergy.my www.clenergy.my



**10 Year  
Warranty\***

Our Ref: 23939

18 February 2013

Clenergy Australia  
18/20 Duerdin Street  
Clayton North VIC 3168

### Array Frame Engineering Certificate

#### **Installation of PV-ezRack<sup>®</sup> SolarRoof on Tin and Tile Roof**

Gamcorp (Melbourne) Pty Ltd, being Structural Engineers within the meaning of Australian Building Regulations, have carried out a structural design check of PV-ezRack<sup>®</sup> SolarRoof installation within Australia. The design check has been based on the information in the *PV-ezRack SolarRoof\_Code Compliant planning and Installation\_Guide AV\_V2.2* and schematic drawings of the system components by Clenergy (Xiamen) Technology Co. Ltd., provided by Clenergy Australia.

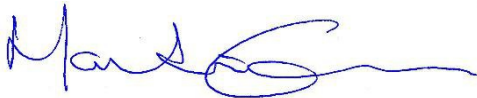
We find the Installation of PV-ezRack<sup>®</sup> SolarRoof on tin and tile roof to be structurally sufficient for Australian use based on the following conditions:

- Wind Loads to AS/NZ1170.2:2011 Admt 2-2012
- Wind Region A, B, C, D
- Wind Terrain Category 2 & 3
- Wind average recurrence interval of 100 years
- Maximum Building height 20 m
- Max. Solar Panel Dimensions 2000x1000

#### ***Refer to attached summary table for interface spacing.***

Construction is to be carried out strictly in accordance with the manufacturers instructions. This work was designed in accordance with the provisions of Australian Building Regulations and in accordance with sound, widely accepted engineering principles.

Yours faithfully,  
Gamcorp (Melbourne) Pty Ltd

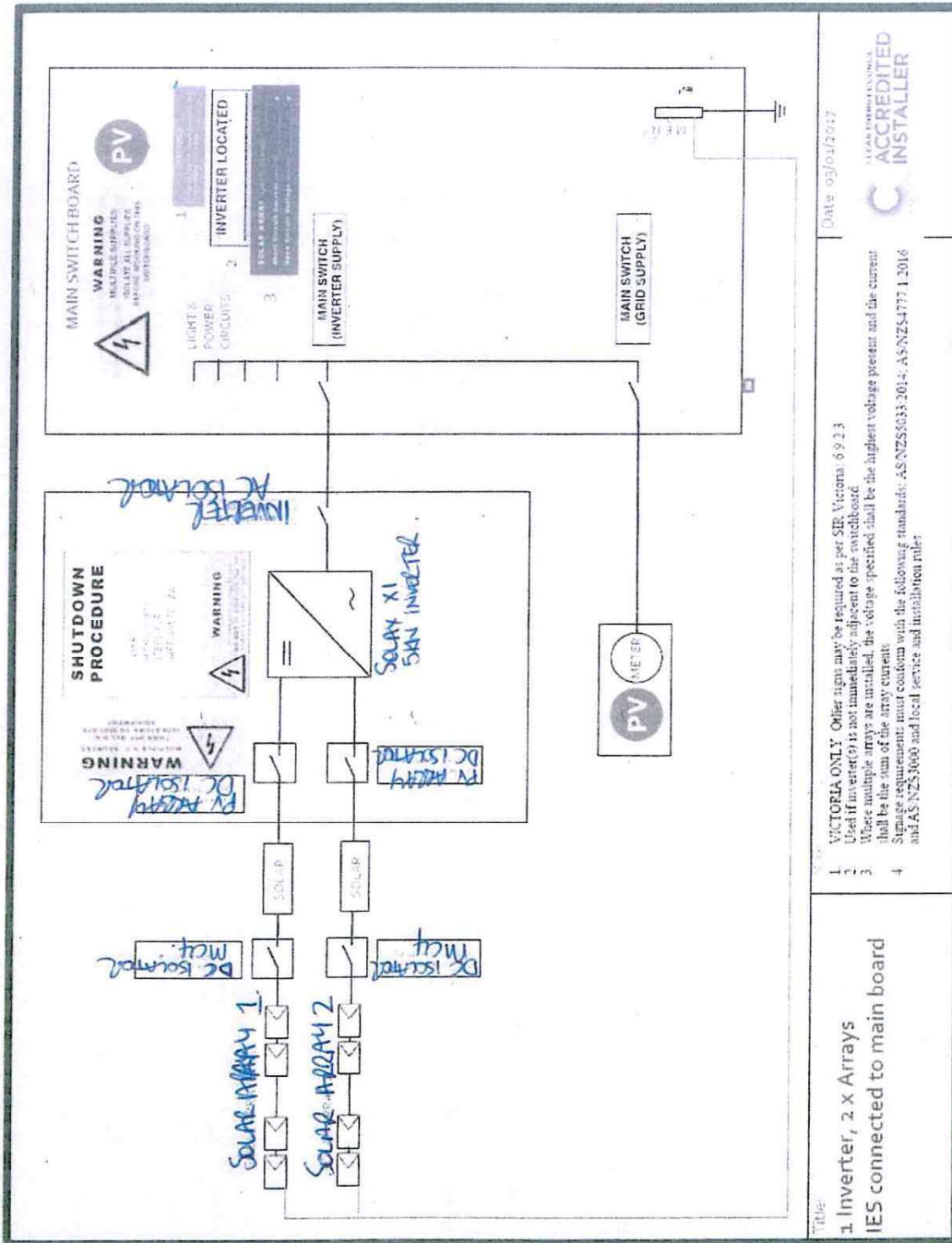
A handwritten signature in blue ink, appearing to read 'Martin Gamble'.

Martin Gamble  
Managing Director  
MAICD

A handwritten signature in blue ink, appearing to read 'Milan Bjelobrk'.

Milan Bjelobrk  
MIEAust, CPEng, NPER 2210984,  
RPEQ 12090, RBP EC-38461, NT BPB 139671ES

15.4 Example of 1 X inverter, 2 X arrays IES connected to main board



Date: 03/04/2017

1. VICTORIA ONLY: Other signs may be required as per SIR Victoria 6923  
 2. Used if inverter(s) is not immediately adjacent to the mainboard  
 3. Where multiple arrays are installed, the voltage specified shall be the highest voltage present and the current shall be the sum of the array currents  
 4. Signage requirements must conform with the following standards: AS/NZS5033:2014; AS/NZS4777.1:2016 and AS/NZS3000 and local service and installation rules

Title:  
 1. Inverter, 2 x Arrays  
 IES connected to main board





## 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 **1300 983 668** or email [service.energy@stoddarts.com.au](mailto:service.energy@stoddarts.com.au).