



## **LIMITED WARRANTY FOR CRYSTALLINE PV MODULES**

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Astronergy New Energy Technology (Singapore) Pte. Ltd. (hereafter “Astronergy”) provides the limited warranty to purchasers (hereafter “Customer” ) of Astronergy Crystalline PV modules (hereafter “Modules” or “Products” ). Unless otherwise agreed in writing by the Parties, the Limited Warranty shall apply to Astronergy Crystalline PV modules manufactured or supplied after the Publish Date specified herein (for details, see Appendix 1). The terms of the Limited Warranty are as follows:

### **1. Limited Product Warranty**

Subject to the Exclusions and Limitations in Clause 3 herein, Astronergy warrants its Products, to be free from defects in materials and workmanship that materially impede the power generation functioning of the Products, provided that the Products are installed, utilized and maintained according to the stipulations of the Installation Manual provided by Astronergy, within a period of 180 or 300 months( “Limited Warranty Period” ) from the delivery date to the direct Customer or 6 months after the Module production date, whichever is earlier ( “Warranty Start Date” ).

If Astronergy reasonably determines that the Products fail to conform to the requirements of the Limited Product Warranty set forth herein, Astronergy will,



according to the types of such deficiency, at its sole discretion, decide to select one of the remedies set forth hereunder: 1) repair the defective products, or 2) deliver replacement products for the defective products, or 3) compensate the fair market value of warranted wattages for defective products assessed at the time of claim (hereafter individually or collectively "Limited Product Warranty" ).

The remedies set forth above are the only and exclusive remedies provided by Astronergy for Products defective in material and/or workmanship within Limited Warranty Period, and any claim exceeding Limited Warranty Period shall be rejected and void. Unless otherwise stipulated in Clause 5 Warranty Assignment, remedies will be offered to the Customer only which directly purchased the Products from Astronergy. This Limited Warranty for Crystalline PV Modules does not warrant a specific power output, which shall be exclusively covered under Clause 2 hereinafter ( "Limited Peak Power Warranty – Limited Remedy" ).

## **2. Limited Peak Power Warranty**

Subject to the Exclusions and Limitations in Clause 3 herein, Astronergy warrants that from the Warranty Start Date:

n-type Products: 30-Year Limited Power Warranty.

For the ASTRO N7 Pro series:

The actual power output will be no less than 99% of the nominal power output within the first year; and from the 2<sup>nd</sup> year to the 30<sup>th</sup> year, the actual power output



will decline annually by no more than 0.35%; by the end of the 30<sup>th</sup> year, the actual power output will be no less than 88.85% of the nominal power output.

For the ASTRO N8,N7 2.0,N7,and N7s 2.0 series:

The actual power output will be no less than 99% of the nominal power output within the first year; and from the 2<sup>nd</sup> year to the 30<sup>th</sup> year, the actual power output will decline annually by no more than 0.4%; by the end of the 30<sup>th</sup> year, the actual power output will be no less than 87.4% of the nominal power output.

For the avoidance of doubt, this limited performance warranty shall apply only to the actual power output of the front-side of the modules.

Provided that Astronergy facility or the third party testing institute recognized by Astronergy tests and recognizes such loss in power described above, and Astronergy (at its sole and absolute discretion) determines that loss in power arises out of the defects in material and/or workmanship, Customer is eligible for claim under this Limited Warranty for Crystalline PV Modules. Astronergy will, at its sole discretion, select one of the following remedies: 1) providing replacement modules to the Customer to make up for such loss in power, or 2) by repairing the defective modules, or 3) by compensating the Customer an amount equal to the fair market value of the wattage difference between the actually measured power output wattages and the warranted wattages at the time of first filing the warranty claim, where:



Value of the wattage difference = Current Price (price-per-watt) \* (Theoretical Minimum Residual Warranty Power Output – Actual Power Output)

Theoretical Minimum Residual Warranty Power Output = Nominal Power Output \* (1 - (First Year Degradation Rate + Annual Degradation Rate \* (N-1))).

The remedies set forth in this Clause 2 shall be the sole and exclusive remedies for Products provided under the “Limited Peak Power Warranty – Limited Remedy” .

Attention: The actual power output is to be measured under Standard Testing Conditions (STC, defined as: (a) light spectrum of AM 1.5, (b) an irradiation of 1000 W/m<sup>2</sup>, (c) a cell temperature of 25 °C at right angle irradiation). Any power measurement mentioned herein shall be carried out in accordance with IEC 60904 and subjected to – an allowance of power measurement deviation of ± 3%. Any measured data within ± 3% deviation shall be regarded as compliant with the power output wattages warranted above.

### **3. Warranty Exclusions and Limitations**

A. In any event, all warranty claims must be filed in accordance with the instructions outlined in Clause 4 of this Limited Warranty for Crystalline PV Modules, within the applicable warranty period.

B. The Limited Warranty for Crystalline PV Modules does not apply to modules which have or fit any of the following events:

- Misuse, abuse, neglect or unnatural external forces;



- Alteration, disassemble, reinstallation, and/or improper installation or application;
- Non-observance of local laws and regulations where the Products installed and/or non-observance of Astronergy' s installation and maintenance manual or instructions;
- Repair or modifications by persons that have not been previously authorized or approved by Astronergy;
- Failures caused by surrounding equipment or facility of the Products, or defective components in the construction on which the module is mounted;
- Use under unusual conditions or environments (such as extreme heat or corrosion) that deviate from the product specifications and installation manual;
- Installation on the mobile platforms (except for PV tracking systems) or exposed to the marine environment or under improper voltage or power surges or abnormal environmental conditions (such as acid rain, pest infestation or other pollution);
- Pressurization in excess to the maximum system voltage or power surges;
- Use of Products for purposes unrelated to the generation of solar power;
- Connection with any other brand of PV modules, or Astronergy Products that are a different model or have different power output specifications without Astronergy' s approval in advance;



- Defects occurring during transportation or storage in violation of usual transportation or storage rules or such specified by Astronergy, after the modules have been delivered to the Customer;
- Any alteration, removal or illegibility of the type or serial number of the Products;
- Any deterioration in the appearance of the Products, including any scratches, stains, mechanical wear, rust, degradation, discoloring, deformation or other alteration occurring after the shipment from Astronergy, but not limited to the below visual alteration during the related warranty period:
  - a. Non-significant discoloration of laminate.
  - b. Non-significant loss of glass transparency.
  - c. Non-significant increase of surface roughness.
  - d. Non-significant frame damage due to environmental stress.
  - e. Non-significant damage of junction box due to environmental stress or indication of corrosion.
  - f. Non-significant damage of connectors and cables due to environmental stress or indication of corrosion.
  - g. Non-significant damage of frame fixation due to environmental stress.
- Circumstance that the defect claimed cannot be discovered, found or detected according to the usual technology level when Products entered into circulation;
- Power failure surges, flood, fire, accidental breakage or other events caused by



force of nature, force majeure, or other unforeseeable circumstances outside the range of influence of Astronergy;

- Failure to provide proof of purchase or product information or other supporting evidentiary materials required by Astronergy;
- Customer' s failure to make full payments of the Products under the purchase order or any sale and purchase agreement;
- Use the Products in a way that infringes Astronergy' s or any other third party' s intellectual property rights (including but not limited to patent rights, trademark rights, etc.);

C. The following costs and expenses shall be borne by the Customer no matter whether Astronergy undertakes to execute any remedy under Limited Product Warranty or Limited Peak Power Warranty:

- (i) Costs and expenses incurred in the process of dis-installation and repacking of the defective products, installation of replacement products, and reinstallation of the repaired products; profits loss of the system generation; fees, levies, taxes or other financial duties due in relation to any applicable solid waste, electronic waste disposal, and incurred in compliance with environmental regulations and laws; all import and export duties and other taxes incurred due to above-mentioned remedies etc.;



(ii) Any fees, levies, taxes or other financial duties imposed on the products compliance due to change in laws, regulations, governmental or judicial decisions, and industrial standards promulgated after purchase of the products.

D. Astronergy 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 modules, including, without limitation, any defects in the modules, or from use or installation. Under no circumstances shall Astronergy be liable for incidental, consequential, collateral damages (including but not limited to profit loss, revenue loss, production loss or power generation loss, loss of business opportunities, interest loss, liquidated damages, other property losses, loss of the decrease in the amount of the guarantee), loss of use, or special damages, regardless of whether such damage or losses are based on agreements, warranty, assurance or guaranty, in tort or by strict liability, or whether Astronergy has prior knowledge of the possibilities of occurrence of such losses. Astronergy' s maximum aggregate liability, if any, in damages or otherwise, shall not exceed the invoice value against the affected modules as paid for by the Customer.

**E. THE CUSTOMER AGREES AND ACCEPTS THAT:**

**THE WARRANTIES TO CUSTOMER SET FORTH IN THE LIMITED WARRANTY,  
ARE ONLY AND EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS**

#### **AND WARRANTIES, EXPRESS OR IMPLIED.**

Astronergy hereby disclaims and excludes any implied warranty of merchantability or fitness for particular purpose, and all warranties arising from course of dealing or usage of trade. Any description of products sold under the contract and acknowledged by Astronergy, including the description of the Products' properties and performance, suggestions and advises on Product' s application, use or suitability, regardless of being made in writing or verbally, in public statement, endorsement or advertisement, shall not bind to Astronergy and shall not be construed as an express warranty.

#### **4. Procedures for Warranty Claims**

A. Warranty claims should be emailed to [Astronergy.Claims@astronergy.com](mailto:Astronergy.Claims@astronergy.com), or submitted via the Astronergy Global After-Sales Service Platform at <https://gcqsportal.astronergy.com.cn>, or sent to Astronergy directly by registered mail or formal express mail to the location of Astronergy, at the address: No. 1 Jisheng Road, Jianshan New Zone, Haining, 314415, Zhejiang, P.R. China

B. The Customer shall provide necessary evidenced documents for its warranty claim. The claims must include the module model type and the serial number of the defective module(s) (both can be found on the module label), the installation date, location and address of the installation, a precise description of the defect observed and (if applicable, additional information that could attribute to the



analysis of the defect, photographs of the damaged modules, the circuit diagram of the system, any records from the system data monitoring), accompanied by payment voucher and a copy of the purchase contract, warranty document, delivery date or installation date at project site, and other supporting materials required by Astronergy, and the Customer must state: "We hereby accept, and agree to, the choice of law, the choice of an expert appraiser and the choice of arbitration as set out in Clause 7 of your Limited Warranty for Crystalline PV Modules on which our claim is based."

C. If Astronergy considers necessary at its sole discretion, Astronergy can request the module be shipped back to Astronergy's factory for testing, in which case, Astronergy will provide the Customer with a Return Merchandise Authorization ( "RMA" ), the transportation costs will be borne by the Customer temporarily. In the absence of such RMA, any returned module will not be accepted by Astronergy. In the event the Customer returns the Modules without written consent of Astronergy, the risks (including but not limited to damage and loss of the Modules) and expenses related to the Modules shall be borne by the Customer. If Astronergy verifies reasonably that the Products fail to meet the "Limited Warranty" and liability falls within the warranty scope, Astronergy will reimburse the transportation costs associated with returning of the claim modules based on the invoice related to such costs provided by the Customer. The reasonable



transportation costs shall not exceed the costs agreed by Astronergy in advance in writing, any excess shall be borne by the Customer.

D. Astronergy is entitled to decide whether to send a representative to investigate the alleged claims on site, or Astronergy opts to repair the products by itself, the Customer shall coordinate and cooperate with Astronergy regarding its decision. If the Customer refuses or fails to cooperate with Astronergy, Astronergy has the right to extend or refuse the claim without any liability.

E. Astronergy undertakes to bear the reasonable transportation costs for delivering the repaired or replacement Products to the Customer.

However, the aforesaid reasonable transportation costs shall not include any insurance fees, taxes or import and export duties or any costs incurred as a result of the Customer's failure to or delay to cooperate with Astronergy, such as storage fees, demurrage, etc. The Customer shall provide Astronergy with the original invoice related to such reasonable transportation costs, otherwise Astronergy shall not bear such costs. The reasonable transportation costs shall not exceed the costs agreed by Astronergy in advance in writing, any excess shall be borne by the Customer.

F. Customer shall raise the claim to Astronergy or the distributors in accordance with the Clause 4 Section A within thirty (30) calendar days from the date when Customer find and discover or should have found or discovered that there is 1)



material or workmanship defect(s) in module; or 2) module power output declining more than the one warranted in this Limited Warranty. Should the claim not be raised within the above thirty (30) calendar days, Customer' s right to claim shall have been forfeited.

G. Astronergy is entitled to supply another similar type of Products to replace the claimed one if the type of claimed Products is no longer in production when the warranty claim is received.

H. The repair, replacement, or additional delivery of a Product neither renews nor extends the period of the warranty. The warranty period for replaced, repaired or additional delivered products is the remainder of the warranty for the defective products.

I. Unless instructed by Astronergy in writing or required by law,, any claimed/defective Product that has been replaced shall be disposed by Customer at its own expenses and costs in accordance with the local applicable electronic waste law or regulations. Unless agreed by Astronergy in writing, any replaced module(s) shall not be resold, reworked, researched, redeveloped or reused in any way.

## **5. Warranty Assignment**

Without prejudice to other rights and remedies to Astronergy in the Warranty letter, unless the end-user of the Products can submit sufficient documents to the extent satisfactory of Astronergy evidencing the successful transfer and assignment of

warranty from Customer to end-user, Astronergy shall be entitled to reject the claims made by the end-user or owner of the Products. This Limited Warranty may be assigned to a third party who obtains the title of the Products upon reasonable prior written notice to Astronergy under following pre-conditions: (1) the Products remain installed in their original installation location without reinstallation; (2) Astronergy has received the full payment for the Products; (3) the third-party shall sign a letter confirming the acceptance of the Limited Warranty upon the request of Astronergy. Notwithstanding the aforesaid, this Limited Warranty shall only be assigned as a whole and not in part to any party taking legal title of the Products.

## **6. Severability**

If a part, provision or clause of this Limited Warranty for Crystalline PV Modules, or the application thereof to any person or circumstance, is held invalid, void, revoked or unenforceable, such holding shall not affect and shall leave all other parts, provisions, clauses or applications of this Limited Warranty for Crystalline PV Modules, and to this end such other parts, provisions, clauses or applications of this Limited Warranty for Crystalline PV Modules shall be treated as severable.

## **7. Disputes**

No action, regardless of form, arising out of or in any way connected with this Limited Warranty for Crystalline PV Modules, maybe brought against Astronergy more than six (6) months after the cause of action has occurred.



Astronergy may provide these warranty conditions in several languages for the convenience of Customers. In the event of deviations, the English version shall prevail.

In the case of a dispute in a warranty claim, a first-class international institute designated by Astronergy such as TÜV Rheinland in Cologne/China, TÜV SUD in China, UL and other test laboratories (CBTL) accredited by IECCE shall be involved to judge the claim. During the I-V testing process, the modules must be in a non-metastable state. For specific procedures, please refer to the "NIM-ZY-GX-GF-106 Stabilization Treatment Method for Tunnel Oxide Passivated Contact (TOPCon) Photovoltaic Modules". All fees and expenses (including but not limited to transportation costs, insurance, testing costs, etc.) incurred in connection with testing shall be borne by the losing party, unless otherwise awarded. If Astronergy and/or the Customer refuse(s) to accept or enforce the award made by the international institute, such dispute shall be finally settled in accordance with the dispute resolution as set out in the purchase agreement entered into by Astronergy or Astronergy's affiliated company and the Customer for purchasing the products. The final right of interpretation shall be vested in Astronergy.

## **8. Force Majeure**

Astronergy shall not be responsible or liable in any way to the Customer for any non-performance or delay in performance under this Warranty due to acts of God,



War, Riots, Strikes, Epidemic, unavailability of suitable and sufficient labor, and material, or a deficiency in production capacity, technology or output and any unforeseeable events beyond the reasonable control of Astronergy.

## **9. Rights and Remedies against Third Parties**

This Limited Warranty shall be construed as a separate warranty and independent from any other contractual arrangement between the Customer and other third parties relating to the Products. It shall not affect any rights, obligations and remedies of the Customer, if any, that the Customer may have or assume in relation to any third parties for defects or non-conformity or non-compliance of the Products, regardless of the legal basis on which such rights, obligations and remedies are based.

## **10. Miscellaneous**

Unless otherwise stipulated in the agreement, this Limited Warranty shall only apply to Products manufactured or sold after the publish date of this Warranty, and shall have no retroactive effect to the Products supplied prior to the Publish Date.

Astronergy and Customer agree that both parties have reviewed and understand the provisions of this Limited Warranty and Customer acknowledges that Astronergy has explained all provisions and legal effect contained in such provisions and Customer has received satisfactory explanations as to any issue raised by it in respect thereof. Under no circumstances shall the Limited Warranty



and provisions herein be regarded as the standard format clause of either party.

Unless otherwise stipulated by separate agreement, this Warranty shall not take effect to Astronergy unless it is signed by Astronergy either in separate form or cosigned in form of annexes with major contract order.

#### GLOBAL SERVICE CENTERS

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