



Photovoltaic Module Limited Warranty

1. Limited Product Warranty

ANHUI TUNGHSU KANGTU SOLAR TECHNOLOGY CO.,LTD (hereinafter “Tunghsu”) warrants its photovoltaic modules to be free from defects in workmanship and materials for a period of fifteen (15) years from the warranty start date of the modules.

If a module malfunctions or becomes inoperative due to a defect in workmanship or material during the fifteen-year period of this warranty, TUNGHSU will, at its sole option, either repair or replace the module in problem, or refund the then-current market value of the same type module. The repair, replacement, or refund remedies shall be the sole and exclusive remedies provided under this “Limited Warranty”.

Any deterioration in appearance of the modules (including any scratches, stains, mechanical wear, rust, or mold), or any other changes to the modules which occur after delivery to the customer, do not constitute a defect under this Limited Warranty unless it materially impairs the product’s power output as warranted pursuant to clause 2. A claim in the event of glass breakage arises only to the extent that there was no external cause to the breakage.

This “Limited Product Warranty” does not warrant a specific power output, which shall be exclusively covered under clause 2 hereinafter (“Limited Power Warranty”).

2. Limited Power Warranty

A. “Pmax” is the nominal power that a photovoltaic module generates at STC as specified on the product datasheet. “Standard Test Conditions” are as follows: [a] light spectrum of AM 1.5, [b] an irradiation of 1,000 Watts per square meter and [c] cell temperature at 25 degrees centigrade. The measurements carrying out in accordance with IEC61215 as tested at the junction box terminals per the calibration and testing standards of TUNGHSU in effect on the date of manufacture of the modules. TUNGHSU’s calibration standards shall be in comply with then-current standards applied by international institutions accredited for this purpose.

B. Limited Pmax Warranty for single glass modules

TUNGHSU further warrants that, for a period of twenty-five (25) years from the warranty start date, each single module will exhibit the power output as set forth below:

For poly module, no less than 97.5% of the Pmax for the first twelve (12) months, and thereafter no more than 0.6% of Pmax degradation for each twelve (12) months, ending with no less than 83.1% in the 25th year.



For mono module, no less than 98% of the Pmax for the first twelve (12) months, and thereafter no more than 0.55% of Pmax degradation for each twelve (12) months, ending with no less than 84.8% in the 25th year.

C. Limited Pmax Warranty for bifacial double glass modules

TUNGHSU further warrants that, for a period of thirty (30) years from the warranty start date, each bifacial module will exhibit the power output as set forth below:

For poly module, no less than 97.5% of the Pmax for the first twelve (12) months, and thereafter no more than 0.5% of Pmax degradation for each twelve (12) months, ending with no less than 83% in the 30th year.

For mono module, no less than 98% of the Pmax for the first twelve (12) months, and thereafter no more than 0.45% of Pmax degradation for each twelve (12) months, ending with no less than 84.95% in the 30th year.

Tungshu solar power warranty															
single glass															
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Mono	98%	97.45%	96.90%	96%	95.80%	95.25%	95%	94.15%	93.60%	93%	92.50%	91.95%	91%	90.85%	90.30%
Poly	97.50%	96.90%	96.30%	95.70%	95.10%	94.50%	93.90%	93.30%	92.70%	92.10%	91.50%	90.90%	90.30%	89.70%	89.10%
Year	16	17	18	19	20	21	22	23	24	25					
Mono	89.75%	89.20%	88.65%	88.10%	87.55%	87.00%	86.45%	85.90%	85.35%	84.80%					
Poly	88.50%	87.90%	87.30%	86.70%	86.10%	85.50%	84.90%	84.30%	83.70%	83.10%					
bifacial glass															
Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Mono	98%	97.55%	97.10%	97%	96.20%	95.75%	95%	94.85%	94.40%	94%	93.50%	93.05%	93%	92.15%	91.70%
Poly	97.50%	97%	96.50%	96.00%	96%	95.00%	94.50%	94%	93.50%	93.00%	93%	92.00%	91.50%	91%	90.50%
Year	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Mono	91.25%	90.80%	90.35%	89.90%	89.45%	89.00%	88.55%	88.10%	87.65%	87.20%	86.75%	86.30%	85.85%	85.40%	84.95%
Poly	90%	89.50%	89%	88.50%	88%	87.50%	87%	86.50%	86%	85.50%	85%	84.50%	84%	83.50%	83%

D. Limited Remedies

If the power output of the module tested by the third party, which is appointed or accepted by TUNGHSU under Standard Test Conditions does not meet the above levels within the specified warranty period, and proved that the power loss is caused by TUNGHSU exclusively, then upon accepting and confirming the proof from customer, TUNGHSU will, at its sole option, either [1] make up such loss in power by either (a) providing additional modules to the customer or (b) refunding the then-current market price equivalent to the additional modules or [2] repair or replace the defective modules including free shipping to the place applied by TUNGHSU.

The remedies set forth in Clause 2 are the sole and exclusive remedies provided under the “Limited Power Warranty”.

This “Limited Power Warranty” does not warrant defects in workmanship and materials, which shall be exclusively covered under “Limited Product Warranty”.

3. Warranty Start Date

The warranty start date shall be defined as ninety (90) calendar days after the



dispatch from Tunghsu.

4. Not Independent Warranties

The customer has the right to pursue claims under each of the limited warranties set forth above; provided, however, that claims arising under multiple limited warranties from a single incident, then if Tunghsu provides any solution as set forth above to such incident, Tunghsu shall be deemed to have resolved all applicable warranty claims arising from such incident.

5. Exclusions and Limitations

A warranty claims shall be filed in writing to TUNGHSU or its authorized distributors within the applicable warranty period, without exception Tunghsu may reject the claim if it has not been fully paid for the modules or under its supply/sale contract with the distributor at the time of the claim.

These Limited Warranties shall not be applied to the modules which in Tunghsu 's sole judgment have been subjected to :

1. Improper installation, application, maintenance or alternation which do not strictly follow the manufacturer's "Installation Manual";
2. Use on mobile(non-stationary) units or in marine application or extreme thermal environment or other abnormal environment (such as acid rain, salt, chemical substances or other pollutions)or extremely rapid change of surroundings, corrosion, oxidation;
3. Power failure, electrical spikes or surges, lighting, flood, fire, accidental breakage and other external factors;
4. Damage caused by the improper storage condition of customer; Misuse, abuse, neglect, vandalization or accident;
5. The type or serial number of the module has been altered, removed or made illegible without written authorization from Tunghsu.

The components in the construction based on which the modules are mounted are defective;

Other events beyond TUNGHSU's control.

These Limited Warranties only cover the transportation costs (except the air freight) for shipment of any additional repaired or replaced modules to the place applied by Tunghsu. Any costs for returning the modules to Tunghsu or its authorized agents and authorized distributors, or costs associated with installation, removal, reinstallation of the modules, or customs clearance shall be borne by the customers. The reasonable, customary, documented transportation cost of returning the modules shall be borne by TUNGHSU only if it is authorized by After-sales Service Department of TUNGHSU.

SINO-SILICON is not liable for any expense, liability or responsibility incurred for repairs made by or for customer without TUNGHSU's written authorization.



6. Limitation of Warranty Scope

These limited warranties set forth herein are expressly in lieu of and exclude all other expressed or implied warranties, including but not limited to warranties of merchantability, warranties of fitness for particular purpose, use, or application, warranties of non-infringement of third party rights, including, but not limited to, intellectual property rights, and all other obligations or liabilities on the part of TUNGHSU unless such other warranties, obligations or liabilities are expressly approved by TUNGHSU's Chief Executive Officer by signature. Unless prohibited by local laws or regulations, TUNGHSU shall have no responsibility or liability whatsoever for injury or damage to any natural persons or any tangible property, or for other loss or injury resulting from any cause whatsoever arising out of or related to the module itself, including, without limitation, any defects in the modules, or from use or installation. Under no circumstances shall TUNGHSU be liable for incidental, consequential or special damages, whatever the cause is, even if TUNGHSU is provided prior notice of such damages. Loss of use, loss of profits, loss of production, and loss of revenues are therefore specifically but without limitation excluded. TUNGHSU's aggregate liability, if any, in damages or otherwise, shall not exceed the invoice value as paid by the customer for the single unit of module.

7. Transferability

This "Limited Warranty" is extended to the original purchaser, and is transferable to any subsequent holder of the modules when modules remain at their original installed location for the first time (first installation) upon satisfactory proof of succession or assignment.

8. Obtaining Warranty Performance

In order to obtain warranty service under the TUNGHSU's "Limited Warranty", the customer should promptly notify SINO-SILICON's regional Customer Service Center or its authorized distributors. Together with the notification, the customer should enclose the evidence of the claim, including but not limited the description of the defects, pictures of the complete serial numbers and the defective parts, testing data and a copy of commercial invoice. The modules should be returned for inspection, repair or replacement by TUNGHSU, TUNGHSU will provide the customer with a "Return Merchandise Authorization (RMA)". TUNGHSU will not accept the return of any module without a RMA.

If TUNGHSU determines that the returned modules by customer are not defective or that the performance deficits are not covered under this "Limited Warranty", TUNGHSU will return the modules to customer at customer's expense and will have no further obligation for the repair, replacement, or refund. Further, the additional modules which have been sent to the customer for compensation shall



be the property of TUNGHSU and shall be returned or compensated to TUNGHSU.

9. Disputes

In case of any discrepancy in a warranty-claim, a test-institute appointed or accepted by TUNGHSU shall be involved for the final judgment of the claim. All fees and expenses shall be borne by the losing party, unless otherwise awarded.

10. Miscellaneous

There pair or replacement of the modules or the supply of additional modules does not lead to a commencement of new warranty terms, nor shall the original terms of this “Limited Warranty” be extended. Any replaced modules shall become the property of TUNGHSU. TUNGHSU shall at its own option, deliver another type(different in size, color, shape, and/or power) of PV modules, either one with a new brand or the original one, in the case that TUNGHSU discontinued producing the replaced modules at the time of the claim.

11. Force Majeure

TUNGHSU shall not be responsible or liable in any way to the customer or any third-party for matters arising from any non-performance or delay in performance of any terms and conditions of sale, including this “Limited Warranty”, due to fire, flood, blizzard, hurricane, lightning, thunder, acts of God, changes of public policies, terrorism, war, riots, strikes, unavailability of suitable and sufficient labor or materials and other unforeseen events which are out of TUNGHSU's control.

Note:

1. In the event of any inconsistency among different versions of this warranty statement, the Chinese version shall prevail in China including Taiwan, Macao and Hong Kong, meanwhile the English version shall prevail in any other countries except China.
2. The installation and handling of PV modules requires professional skills and should only be performed by qualified professionals. Claims under this warranty will be honored only if the customer can provide the proof that the modules are under normal application, installation, use and service conditions specified in TUNGHSU's latest version of “Installation Manual”.

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Latest version.