

HANERSUN



**Hanersun
Solar Modules
Limited Warranty**

2023 Edition

V-2.0

Hanersun Technology Co., Ltd. (hereinafter referred to as “Hanersun”) hereby grants the following Global Limited Warranty to the first customer installing (for its all use) any of the specified (and no other) brand models of solar photovoltaic modules of Hanersun listed below and remaining at the original place of installation without having them moved or disassembled after initial installation (the “Products”):

1. WARRANTED PRODUCTS

HN16-XXHXXXW; HN16-XXHBXXXW;

HN17-XXHXXXW; HN17-XXHTXXXW; HN17-XXHBXXXW;

HN18-XXHXXXW; HN18-XXHTXXXW; HN18-XXHBXXXW;

HN18N-XXHXXXW; HN18N-XXHTXXXW; HN18N-XXHBXXXW;

HN21-XXHXXXW; HN21-XXHTXXXW; HN21-XXHBXXXW;

HN21N-XXHXXXW; HN21N-XXHTXXXW; HN21N-XXHBXXXW;

*NOTE:

“HN” represents Hanersun.

“N” represents TOPCon cell.

“X” represents different types of product and different power class.

“H” represents half-cell module.

“B” represents all black module.

“T” represents twin glass bifacial module.

2. LIMITED PRODUCT WARRANTY

Hanersun warrants the Product(s) listed in Sec. 1 to be free from serious visual defects in or abnormal performance caused by materials and workmanship which defined in IEC61215, IEC61730 and UL1703 under normal application and use, installation and service conditions as specified in Hanersun's installation manual for a period of twelve or fifteen (12&15) years from Warranty Start Date (as defined below). Claims under this warranty will be honored only if the Customer can provide the proof that the serious visual defects or abnormal performance result exclusively from defects in

materials or workmanship during the period of this warranty under normal application, use, installation and service conditions specified in Hanersun's Installation Manual.

***NOTE:**

(1). Limited Product Warranty just includes types of materials of standardized Hanersun products and does not include types of materials provided or appointed by customers.

(2). 12-Year Limited Warranty for Hanersun monofacial modules; 15-Year Limited Warranty for Hanersun bifacial modules.

3. LIMITED POWER OUTPUT WARRANTY

a) For Product(s) under normal application, use, installation and service conditions as specified in Hanersun's Installation Manual, Hanersun warrants that the output power is as follows:

(1). For Monocrystalline Product(s): within the first year, the output power shall not be less than 98% of the minimum output power in Hanersun's product datasheet, and thereafter the loss of output power shall not exceed 0.55% per year; by the end of the 25th year, the actual power output shall be no less than 84.8%.

(2). For Topcon Monocrystalline Product(s): within the first year, the output power shall not be less than 99% of the minimum output power in Hanersun's product datasheet, and thereafter the loss of output power shall not exceed 0.4% per year; by the end of the 25th year, the actual power output shall be no less than 89.4%.

(3). For Polycrystalline Products: within the first year, the output power shall not be less than 98 % of the minimum output power in Hanersun's product datasheet, and thereafter the loss of output power shall not exceed 0.5% per year; by the end of the 25th year, the actual power output shall be no less than 86%.

(4). For Bifacial Products: within the first year, the output power shall not be less than 98% of the minimum output power in Hanersun's product datasheet, and thereafter the loss of output power shall not exceed 0.45% per year; by the end of the 30th year, the actual power output shall be no less than 84.9%.

(5). For Topcon Bifacial Products: within the first year, the output power shall not be less than 99% of the minimum output power in Hanersun's product datasheet, and thereafter the loss of output power shall not exceed 0.4% per year; by the end of the 30th year, the actual power output shall be no less than 87.4%.

b) The DC power of a Product shall be tested at Standard Test Conditions (STC) by the third party accredited by Hanersun (should be the same party with Hanersun applied) which are: [a] light spectrum of AM 1.5, [b] an irradiation of 1,000 Watts per square meter and [c] temperature of 25 ± 2 degrees Centigrade. The measurements are carried out at the junction box terminals per the calibration and testing standards of Hanersun valid at the date of manufacture of the Product(s) in accordance with IEC61215, IEC61730 and UL1703. The extended measurement uncertainty (Pmpp) is $0\sim +5W$. (This clause shall apply only if the Customer provides a qualified third party's test report proving that the output power is not up to the standard.)

4. WARRANTY START DATE

The Warranty Start Date is the date of initial installation of the Products or three months after the delivery (Incoterms 2020) of the Products to the Customer, whichever date is earlier.

5. EXCLUSIONS AND LIMITATIONS

a) The Limited Warranty does not apply to any Product(s) which has been subjected to:

(1). Failure to pay the purchase price towards Hanersun or its subsidiaries which have put the module on the market, Hanersun must inform the Customer about the non-payment and provide the name and full address of the Direct Customer which has failed to pay for the module. In case that Hanersun can reject the claims under the Global Limited Warranty based on this provision, the Customer can pay Hanersun for the unpaid amount in order to trigger the Global Limited Warranty claims.

(2). Failure to provide proof of purchase or product information.

(3). Alteration, repair or modification without the prior written consent of Hanersun.

(4). Removal of Product(s) and reinstallation at a new site.

(5). Failing to comply with Hanersun's Installation Manual during the handling of the module products (including but not limited to unpacking, loading/unloading, transportation, storage, installation, use, operation or maintenance of the products, etc.), which directly led to the quality problems with Hanersun Products.

(6). Failure to carry out proper operation and maintenance (including but not limited to operation

and maintenance requirements requested by Hanersun's Installation Manual or other applicable local laws and regulations of the place of installation).

(7). Acts beyond Hanersun's reasonable control (including direct or indirect damage by war, fire, flood, hurricane, volcanic eruption, surface collapse, debris flow, lightning, earthquake, heavy snowfall, hailstone, strong breeze etc.).

(8). Installation on mobile platforms or in a marine environment; direct contact with corrosive agents or salt water; pest damage; or malfunctioning PV system components and other operating conditions, which are not expressly allowed in the Installation Manual.

(9). Alteration, removal or obliteration of the original Product label, model and serial number.

b) For warranty eligible claims, Hanersun shall make commercially reasonable efforts to replace defective Product(s) with new or refurbished Product(s) of the same or similar size and aesthetics, but reserves the right to provide other models of Products in replacement or addition of the defective Products if the defective Products are discontinued or otherwise unavailable.

6. REPAIR, REPLACEMENT OR REFUND REMEDY

a) Warranty claims shall be filed in writing to Hanersun or its authorized distributor within the applicable period. As the Customer's sole and exclusive remedy under this Limited Warranty, Hanersun will, in its sole discretion, either, with regard to the applicable Product(s):

(1). Determine a maintenance plan and repair the defective Product(s) at no charge; or replace the defective Product(s) or part thereof by a new or remanufactured equivalent at no charge.

(2). Refund the Actual Salvage Cash Value of the defective Product(s). Salvage Value of monofacial modules = market price at time of payout V_M^* nominal power P_0^* remaining warranty years/25; Salvage Value of bifacial modules = market price at time of payout V_M^* nominal power P_0^* remaining warranty years/30.

(3). Refund the difference Value between the actual STC power and the warranty power of the Product(s). Front side power compensation = The market price at time of payout V_M^* (sum of the remaining theoretical warranty power according to Sec.3,A - sum of STC power actually measured); The backside power compensation is processed based on the market price at the time of payout and 10% of the difference between the warranty power and the actual STC power measured for backside.

(4). Provide additional Products to make up for the difference between the actual STC power of

Products and the warranty power ($P_w - P_{STC}$). For the backside power replenishment of the Bifacial modules, it is treated at 10% of the difference between the actual STC power and the warranty power.

b) In the event that Hanersun opts for options a(1) or a(4), Hanersun shall bear the direct costs of repairing the products and transportation charges incurred in the delivery of the repair, replacement or additional products to the Customer, excluding insurance, air freight, customs clearance, customer duties and other non-seller's costs (e.g. port delays, storage charges due to negligence on the part of the customer or end-user). During repair and replacement, the costs and other related expenses for the removal, handling, repack, installation or reinstallation shall remain with the customer.

c) The Global Limited Warranty periods as defined in Sec.2 and 3 shall not extend or renew upon the repair, replacement or offering additional products of defective Products by Hanersun. The Global Limited Warranty period for replaced, repaired or additionally provided Products is the remainder of the Global Limited Warranty period on the original new Products.

d) Defect Products of end of lifetime Products shall be disposed if legally permissible by the Customer in accordance with local applicable laws or regulations, unless Hanersun agrees or where legally mandatory takes them back. If Hanersun decides or where legally mandatory takes the defective products back, the goods property of these products shall belong to Hanersun without any limitation.

7. NOT INDEPENDENT WARRANTIES

The Customer has the right to pursue claims under each of the warranties set forth above; provided, however, that if claims arise under multiple limited warranties from a single incident, then if Hanersun remedies such incidents as set forth above, Hanersun shall be deemed to have resolved all applicable warranty claims arising from such incident.

8. LIMITATION OF WARRANTY SCOPE

According to this Global Limited Warranty, under no circumstances shall Hanersun be liable for incidental, consequential or special damages (including loss of profits, risk of business interruption, loss of power generation, harm to goodwill or business reputation, or delay damages are therefore specifically but without limitation excluded), howsoever caused, unless such obligation or liability is

expressly agreed to in a written form signed and approved by Hanersun. Hanersun 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 the Product(s), including, without limitation, any defects in the Product(s), or from use or installation. Hanersun's liability, if any, in damages or otherwise, shall not exceed the Actual Salvage Cash Value of the Product(s) which is the subject of claim or dispute.

9. NEGOTIABILITY

This warranty is extended to the end-user purchaser. It is transferable to any subsequent owner of the location or subsequent holder of the Product(s) as long as the Product(s) remain at their original installed location upon satisfactory proof of succession or assignment.

10. CLAIMS PROCEDURE

a) In order to obtain warranty service under the Limited Warranty, the Customer should promptly notify Hanersun or its authorized distributor. Together with the notification, the Customer should enclose the evidence of the claim, such as the description of the defect, the complete serial number printed on the module label, the picture of the bar code, a copy of commercial invoice and the delivery date of its Product(s). Should the Product(s) be returned for inspection, repair or replacement by Hanersun, Hanersun will provide the Customer a Return Merchandise Authorization (RMA). Hanersun will not accept the return of any modules without a RMA.

b) If Hanersun determines that the Product(s) is not defective or that a performance deficit is not covered under this warranty, Hanersun will return the Product(s) to the Customer at the Customer's expense and will have no further obligation for the repair, replacement, or refund.

11. FORCE MAJEURE

Hanersun shall not be in any way responsible or liable to the Customer or any third party for matters arising from any non-performance or delay in Hanersun's performance of any terms and conditions of sale, including this Limited Warranty, due to fire, flood, blizzard, hurricane, thunder, natural disasters, changes of public policies, terrorism, war, riots, strikes, unavailability of suitable and

sufficient labor or materials and other events which are out of control of Hanersun.

12. VALIDITY

This Global Limited Warranty shall apply to Products delivered to the Customer on or after 1st of March 2023 (Incoterms 2020). This Global Limited Warranty shall be valid until a new revision is issued by Hanersun.



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