



**PRODUCT WARRANTY  
PHOTOVOLTAIC MODULE**

**Version 202412**



## Global Limited Warranty

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

### **1 Limited Product Warranty - 15 Years**

THORNOVA Solar warrants its Photovoltaic Solar Modules (MODULES), including factory-assembled DC connectors and cables, if any, to be free from defects in materials and workmanship under normal application, installation, usage and service conditions.

If the Buyer is aware or should have been aware of such design, material, workmanship or manufacturing defects prior to installation of the Products and nevertheless installs the Products without giving THORNOVA Solar the opportunity to correct such defects prior to installation, the Buyer shall bear the additional costs incurred by correcting such defects after installation.

This Limited Product Warranty covers glass breakage provided that there was no external cause of breakage (i.e. only breakage caused by the glass itself or the module is covered).

Any deterioration in the appearance of the Products (including, without limitation, any scratches, stains, mechanical wear, rust, mold, deformation or discoloration) or any other changes to the Products which occur after delivery (Incoterms 2020) to the Buyer, does not constitute a defect under this Limited Product Warranty.

### **2 Limited Peak Power Warranty - Limited Remedy**

THORNOVA Solar warrants that for a period of twenty-five years commencing on the Warranty Start Date, the loss of power output relating to the initial guaranteed power which is defined as Peak Power Watts  $P_{max}$  (Wp) plus Peak Power Watts  $P_{max}$  (Wp) multiplied by the lower limit of the Power Output Tolerance  $P_{max}$  (%) - as specified in the relevant Product Data Sheet and measured at Standard Test Conditions (STC[1]) for the Product(s) shall not exceed.

#### **LINEAR PERFORMANCE WARRANTY**

For PERC single glass module: 2% in the first year; 0.55% 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 84.8% of the Nominal Power Output.

For N-type single glass module: 1% in the first year; 0.4% each year thereafter until that date which is Thirty (30) years following the Warranty Start Date, at which time the Actual Power Output shall be not less than 87.40% of the Nominal Power Output.

For PERC dual glass module (Front side): 2% in the first year; 0.45% each year thereafter until that date which is Thirty (30) years following the Warranty Start Date, at which time the Actual Power Output shall be not less than 84.95% of the Nominal Power Output

For N-type dual glass module (Front side): 1% in the first year; 0.4% each year thereafter until that date which is Thirty (30) years following the Warranty Start Date, at which time the Actual Power Output shall be not less than 87.40% of the Nominal Power Output.

If MODULES fail to conform to this warranty during the warranty period, THORNOVA Solar will, at its option, determine a maintenance plan and repair the defective Products; or:

(a) Refund the difference value between the actual STC power and the warranty power of the products;

Front side power compensation = The market price at time of payout (per watt) \* (sum of the remaining theoretical warranty power according to Sec. 2 - sum of STC power actually measured according to Sec. 2;

(b) Refund the salvage value of the defective Products. The salvage value = The market price at the time of payout (unit price per watt) \* the original guaranteed nameplate power \* remaining warranty period (year) / original total warranty period by THORNOVA Solar:

(c) Provide additional Products to make up for the difference between the actual STC power of Products and the warranty power (Difference power = sum of the remaining theoretical warranty power according to Sec. 2 - sum of STC power actually measured according to Sec. 2;

(d) Replace the defective Products or part thereof by new or remanufactured Products. The total nominal power of the replaced Products shall not be less than the total remaining theoretical warranty power of the defective Products. THORNOVA Solar 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.

### **3 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 original Buyer, whichever date is earlier.

## **4 Exclusions and Limitations**

In any event, all warranty claims must be received within the applicable warranty period for this warranty to be effective.

The "Limited Product Warranties" and the "Limited Peak Power Warranties" do not apply to any MODULES which have been subjected to:

Misuse, abuse, neglect or accident; alteration, improper installation or application;

Non-observance of THORNOVA Solar's installation and maintenance instructions;

Repair or modifications by someone other than an approved service technician of THORNOVA Solar; power failure surges, lightning, flood, fire, accidental breakage or any other Force Majeure incidents.

Both the "Limited Product Warranties" and "Limited Peak Power Warranties" do not cover any costs associated with installation, removal or re-installation of the PV-modules and (except as explicitly set forth in the final paragraph of Section (6) customs clearance or any other costs for return of the MODULES.

Warranty claims will not be honored if the serial number of the MODULES have been altered, removed or made illegible.

## **5 Limitation of Warranty Scope**

These "Limited Warranties for PV Modules" as set forth herein are expressly in lieu of and exclude all other express or implied warranties, including but not limited to warranties of merchantability and of fitness for particular purpose, use (usage), or application, and all other obligations or liabilities on the part of THORNOVA Solar unless such other obligations or liabilities are expressly agreed to in writing signed and approved by THORNOVA Solar. THORNOVA Solar 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 MODULES, including, without limitation, any defects in the MODULE, or from usage or installation. Under no circumstances shall THORNOVA Solar be liable for incidental, consequential or special damages, howsoever caused. Loss of usage, loss of profits, loss of production, and loss of revenues is specifically and without limitation excluded. THORNOVA Solar'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.

## **6 Obtaining Warranty Performance**

If the CUSTOMER has a justified claim covered by this "Limited Warranties for PV Modules", an immediate notification directly to THORNOVA Solar shall be filed by mailing a registered letter in writing to the address of listed hereunder, or, sending an email letter to the email account of THORNOVA Solar listed hereunder. Together with the notification, the CUSTOMER should enclose the evidence of the claim with the corresponding serial number of the MODULE(s) and the date on which the MODULE(s) have been purchased.

The return of any PV-modules will not be accepted unless prior written authorization has been given by THORNOVA Solar.

In connection with both the "Limited Product Warranties" and "Limited Peak Power Warranties", THORNOVA Solar shall reimburse CUSTOMER for reasonable, customary and documented transportation charges by sea freight for both the return of the MODULES and reshipment of any repaired or replaced MODULES, only if this cost is authorized by THORNOVA Solar customer service department.

## **7 Severability**

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

## **8 Disputes**

In case of any discrepancy in a warranty-claim, a first-class international test-institute such as TÜV Nord, TÜV Rheinland, TÜV SÜD, KIWA-PI BERLIN or ASU Arizona State University shall be involved to judge the claim finally. All fees and expenses shall be borne by the losing party, unless otherwise awarded. The final explanation right belongs to THORNOVA Solar.

YOU MAY HAVE SPECIFIC LEGAL RIGHTS OUTSIDE THIS WARRANTY, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE. THIS LIMITED WARRANTY DOES NOT AFFECT ANY ADDITIONAL RIGHTS YOU HAVE UNDER LAWS IN YOUR JURISDICTION GOVERNING THE SALE OF CONSUMER GOODS, INCLUDING, WITHOUT LIMITATION, NATIONAL LAWS IMPLEMENTING EC DIRECTIVE 99/44. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE LIMITATIONS OR EXCLUSIONS IN THIS LIMITED WARRANTY STATEMENT MAY NOT APPLY TO YOU.

## **9 Various**

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The repair or replacement of the MODULES or the supply of additional MODULES does not cause the beginning of new warranty terms, nor shall the original terms of this "Limited Warranty for PV-Modules" be extended. Any replaced MODULES shall become the property of THORNOVA Solar made for their disposal. THORNOVA Solar has the right to deliver another type (different in size, color, shape and/or power) in case THORNOVA Solar discontinued producing the replaced MODULES at the time of the claim.

## **10 Warranty Transfer**

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This warranty is transferable when the product remains installed in its original location at the warranty registration.

## **11 Force Majeure**

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THORNOVA Solar shall not be responsible or liable in any way to the customer or any third-party arising from any non- performance or delay in performance of any terms and conditions of sale, including this "Limited Warranty for PV Modules", due to acts God, war, riots, strikes, warlike conditions, plague or other epidemics, fire, flood, or any other similar cause or circumstance beyond the reasonable control of such THORNOVA Solar. In such cases, performance by THORNOVA Solar of this Limited Warranty shall be suspended without liability for the period of delay reasonably attributable to such causes.

## **12 Validity**

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Any subsequent sale of the Products from a country where THORNOVA Solar was first marketed to another country without the consent of THORNOVA Solar ("Prohibition of Parallel Import"). But the Prohibition of Parallel Import does not apply to the sales within the European Union ("EU"), where the sale of Products from one EU country to another does not require the consent of THORNOVA Solar. However, the consent of THORNOVA Solar must be obtained for the sale of Products from outside the EU to an EU country or from an EU country to outside the EU.

## **13 Contact**

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Please contact THORNOVA Solar customer service department if you have any problem with the product, quality or performance. At the time of filing the claim, please ensure that the applicant is the owner of the warranty right for the Products or has a valid authorization document issued by the owner of the warranty right for the Products. It is the responsibility of the owner of the warranty right or its authorized representative to cooperate with THORNOVA Solar to sign the Warranty Solution Agreement. The notice of claim shall specify the claim along with written proof, including without limitation, for the purchase of the Products (e.g. purchasing invoices indicating purchase date, products, serial numbers, etc.) and for the defect or malfunction of the Products (e.g. Materials related to transport, storage, installation and operation, etc.). The contact customer support center for the regions are:

### **China Customer Support**

Address:16/F, Block A1, Wuxi IC Design Center, 777 West Building Road, Binhu District, Wuxi City, Jiangsu Province, P.R. China

Tel: +86 0510-8899-8637

Mail: china@thornovasolar.com

### **Global Customer Support**

Mail: info@thornovasolar.com

## **14 Note**

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The installation and operation of photovoltaic modules requires professional skills and should only be performed by qualified professionals. Please read the safety and installation instructions before using and operating the Products.

### **STC[1]**

"Peak Power at STC" is the power in Watt peak that a PV-module generates in its Maximum Power Point. "STC" is as follows:

(a) light spectrum of AM 1.5;

(b) an irradiation of 1000 W per m<sup>2</sup>;

(c) a cell temperature of 25 degree centigrade at right angle irradiation. The measurements are carried out in accordance with IEC 61215 as tested at the connectors or junction box terminals as applicable per calibration and testing standards of THORNOVA Solar valid at the date of manufacture of the PV-modules.



**THORNOVA** solar