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Limited Warranty For Bifacial PV Modules

(Effective from October 1, 2018)

Chint Solar (Hong Kong) Company Limited (hereafter referred to as “Chint Solar”) provides the limited warranty to purchasers (hereafter referred to as the “customer”) of Chint Solar Bifacial Modules. The terms of the limited warranty are as follows:

1. Limited Product Warranty – 12-Years Repair, Replacement or Refund Remedy

Subject to the Exclusions and Limitations in clause 3 herein, Chint Solar warrants its Bifacial Modules (hereafter referred to as “modules”), including factory-assembled glass, cells, encapsulation material, frame, electric components, Junction box, connector and cable, if any, to be free from defects in materials and workmanship under normal application, operating conditions, use, installation, and maintenance, within a period of 144 months from the date of delivery to the end customers but not later than 6 months after delivery to the first purchaser from Chint Solar, (hereafter referred to as the “warranty start date”).

If a module is found defective in material or workmanship, Chint Solar will, at its sole discretion, repair or replace the module, or refund the purchase price of such defective module as paid by the customer within the above specified period according to the type of defect. For clarification purpose: “material or workmanship defects” are defined per IEC 61215 Clause 7, IEC 61215 Clause 10.1 and IEC 61730 Clause 10.1 for visual defects, and



per IEC 61215 entire Clause 10 for electrical and mechanical defects. Like all materials exposed to different environmental conditions, components of modules are subject to natural degradation (aging) and their appearance may change within the warranty period. The options to repair or replace defective modules, or refund the price of remaining value are the only and exclusive remedies guaranteed under this Limited Warranty for Bifacial Modules and shall not extend beyond the period of 144 months set forth here. Remedies will be performed directly to the end customer only. This Limited Warranty for Bifacial 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 Synthetical Power Warranty – Limited Remedy

2.1 Definition of Synthetical P_{max}

A. $P_{max} = 1.065 * P_{nominal,front}$ (for white glazed bifacial module) or $1.075 * P_{nominal,front}$ (for transparent bifacial module)

$P_{nominal,front}$ (specified on the respective datasheet or module label) is equal to the nominal power under standard testing conditions (STC, defined as: (a) light spectrum of AM 1.5, (b) light intensity: 1000 W/ m², (c) cell temperature: 25°C).

B. $P_{max,i} = P_{front,i} * (1+0.1 * P_{rear,i} / P_{front,i})$

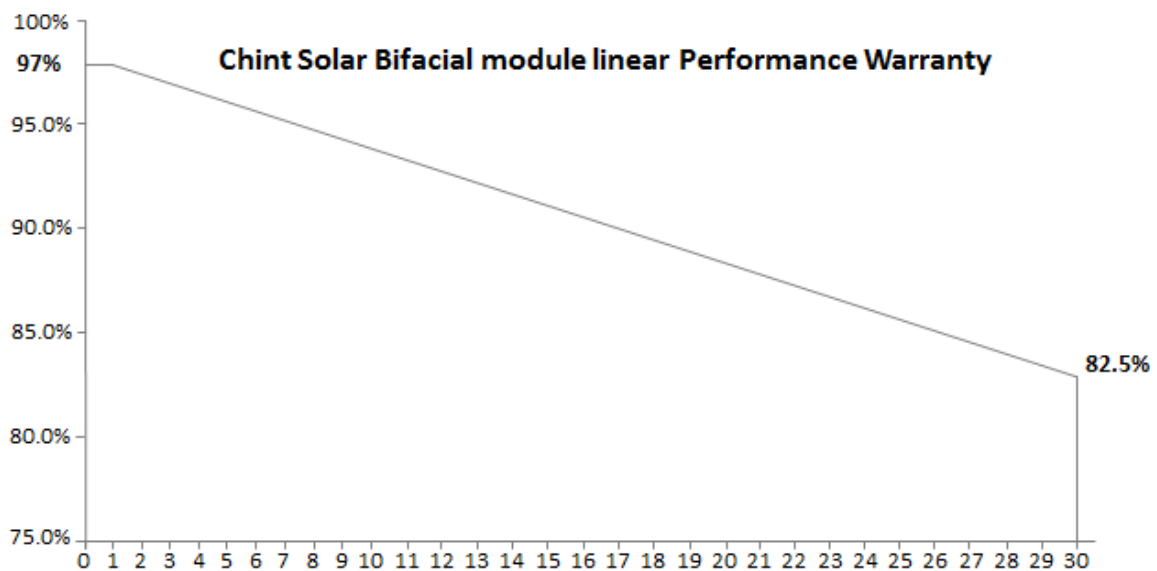
Where, $P_{max,i}$ is equal to the actual Synthetical Power after shipping or operating i years in solar plant, $P_{rear,i}$ and $P_{front,i}$ is equal to module rear and front side peak power under STC respectively in i years after the start date of warranty.



2.2 Limited Synthetical Power warranty

Subject to the Exclusions and Limitations in clause 3 herein, Chint Solar provides power output loss assurance within 30 years as of the Warranty Effective Date. Synthetical Power output loss is calculated by comparing P_{max} with the actual $P_{max,i}$.

The annual degradation is less than 3% within the 1st year from the Warranty Effective Date and is less than 0.5% from the 2nd year to the 30th year within the Synthetical power warranty period. Consequently, at the end of the 30-year from the “warranty start date”, the actual synthetical power $P_{max,i}$ is guaranteed to be at least 82.5% of the initial P_{max} .



For the above such loss in power measured by Chint Solar facility or the 3rd party testing institute recognized by both sides, it is determined by Chint Solar (at its sole and absolute discretion) to be due to defects in material or workmanship, is eligible for claim under this Limited Warranty for Bifacial Modules. Chint Solar will remedy such loss in power by either providing additional modules to the customer to make up for such loss in power, or by repairing or replacing the defective modules at the discretion of Chint Solar.



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

Caution: Any power measurement mentioned herein shall be carried out in accordance with IEC 60904 and subjected to - a power measurement uncertainty of $\pm 3\%$.

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 Bifacial Modules, within the applicable warranty period.

B. The Limited Warranty for Bifacial Modules does not apply to any modules which have been subjected to:

- Misuse, abuse, neglect or accident;
- Alteration, disassemble, reinstallation, and/or improper installation or application;
- Non-observance of Chint Solar’s installation and maintenance instructions;
- Repair or modifications by persons that have not been previously authorized or approved by Chint Solar;
- Failures caused by surrounding equipment of the module;
- Use under unusual conditions or environments (such as high temperature, high humidity and so on) that deviate from the product specifications and installation manual;
- Use for purposes unrelated to the generation of solar power;
- Connection with any other manufacturer’s PV modules, or Chint Solar modules that are a



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different model or have different power output specifications without Chint Solar's approval in advance.

- Defects occurring during transportation or storage in violation of usual transportation or storage rules or such specified by Chint Solar, after the modules have been delivered to the customer;
- Naturally occurring scratches, stains, mechanical wear, rust, degradation, discoloring, or other alteration occurring after the shipment from Chint Solar that have no effect on the power generation performance or mechanical strength of the module, 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.
- 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 Chint Solar.



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C. The Limited Warranty for Bifacial Modules does not cover any transportation charges, customs clearance or any other costs for return of the modules, for reshipment of any repaired or replaced modules, or costs associated with installation, removal or reinstallation of the modules, or profits loss of the system generation.

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

E. Chint 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 modules, including, without limitation, any defects in the modules, or from use or installation. Under no circumstances shall Chint Solar be liable for incidental, consequential, loss of use, loss of profits, loss of revenues, loss of production or special damages. Chint Solar's aggregate liability, if any, in damages or otherwise, shall not exceed the invoice value against the affected modules as paid for by the customer.

4. Obtaining Warranty Performance

A. Warranty claims should be sent to (a) the dealer who sold the modules, or (b) the authorized Chint Solar distributor who sold the modules, or (c) Chint Solar directly at the address: 1335 Bin'an Rd, Binjiang District, Hangzhou, 310053, China

B. Warranty claims must be sent by registered mail or courier or any other official written and legal valid document. 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



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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 a copy of the relevant invoice and purchase contract, delivery date, and 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 6 of your Limited Warranty for Bifacial Modules on which our claim is based." Incomplete notifications claims that do not meet the notification deadline of Clause 4, Section C will not be processed.

C. Any claim under this limited warranty shall be forfeited if (a) the customer does not notify Chint Solar of such claim in writing in accordance with Clause 4 Section A within thirty (30) days after discovering or after the customer should have discovered, the defect claimed under warranty; or (b) the customer does not commence court or arbitration action within six (6) months after proper notification of the claim.

D. Chint Solar is entitled to supply another type of module (if necessary, with other properties) to replace the claimed one if it is no longer in production when the warranty claim is received.

E. The repair, replacement, or additional delivery of a module neither renews nor extends the period of the warranty.

F. Any claimed/defective product that has been replaced by Chint Solar shall become the property of Chint Solar. The claimed/defective product shall be returned or otherwise



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disposed of in accordance with the instructions of Chint Solar and at the customer's expense.

5. Severability

If a part, provision or clause of this Limited Warranty for Bifacial 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 Bifacial Modules, and to this end such other parts, provisions, clauses or applications of this Limited Warranty for Bifacial Modules shall be treated as severable.

6. Disputes

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

Chint Solar 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 Chint Solar such as Fraunhofer ISE in Freiburg, Germany or TÜV Rheinland in Cologne/China, TÜV SUD in China, Intertek, CSA and other test laboratories (CBTL) accredited by IECCE shall be involved to judge the claim. All fees and expenses shall be borne by the losing party, unless otherwise awarded. The final right of interpretation shall be



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borne by Chint Solar.

Remarks:

“Peak power” is the maximum power of solar module under the standard testing conditions (STC). STC refer to as:

- Spectrum: AM1.5
- 1000W/m2 irradiance
- Irradiance at the correct angle and the cell temperature is 25°C.

All bifacial modules pass the test at the terminal of junction box when delivering, both test conditions and methods meet IEC61215 standard (equivalent to GB/T 9535). Chint Solar’s calibration and testing standard are effective on the manufacturing date of the solar module . Chint Solar’s calibration standards are consistent with the approved standards by international institutions. During the period of ‘Limited Warranty for Synthetical Power’, measurement uncertainty shall be counted when determining module’s output power, according to standard IEC 60904.

GLOBAL SERVICE CENTERS

Chint Solar (Zhejiang) Company Limited

1335 Bin’an Rd, Binjiang District, Hangzhou, 310053 China

Tel: + 86 571 5603 1888 Fax: + 86 571 5603 2383

MANUFACTURING PLANTS: Hangzhou / Haining / Vietnam