



**LIMITED WARRANTY CERTIFICATE FOR  
PHOTOVOLTAIC MODULE**

**Ver 1.4.2**

## Limited Warranty for PV Modules

### 1. WARRANTY START DATE.

For the standard solar module types, ECO DELTA shall warrant its Photovoltaic Solar Modules (MODULES)'s performance starting from the date of sale (SALES DATE) to the first customer installing (for their own use) the MODULES (CUSTOMER) or starting at the latest 12 months after module dispatch from the ECO DELTA factory, whichever occurs earlier, (the WARRANTY START DATE)

### 2. LIMITED PRODUCT WARRANTY.

ECO DELTA warrants that the Module and its respective DC connector and cables, if any, shall be free from material defects in design, materials and workmanship that impair the performance of the Module for the applicable period following the Warranty Start Date as set forth below ("Limited Product Warranty"). Material defects shall not include normal wear and tear, corrosion, musty and color difference.

#### **2-1 : P-Type mono-crystalline Modules and poly-crystalline Modules, only applicable to the following Module types:**

ECO-xxxM-72;ECO-xxxM-60;ECO-xxxP-72;ECO-xxxP-60;ECO-xxxM-72EHC;  
ECO-xxxM-60EHC;ECO-xxxM-60black;ECO-xxxM-60HCblack; ECO-xxxM-60D  
ECO-xxxM-60Dblack;ECO-xxxM-60DHCblack;ECO-xxxM-60EHCblack; ECO-xxxM-60DHC  
ECO-xxxM-72LHC;ECO-xxxM-66LHC;ECO-xxxM-60LHC;ECO-xxxM-54LHC;  
ECO-xxxM-72LHCblack;ECO-xxxM-66LHCblack;ECO-xxxM-60LHCblack;  
ECO-xxxM-54LHCblack;ECO-xxxM-66UHC;ECO-xxxM-60UHC;  
ECO-xxxM-55UHC;ECO-xxxM-54UHC;ECO-xxxM-50UHC;ECO-xxxM-48UHC;  
ECO-xxxM-45UHC;ECO-xxxM-40UHC;ECO-xxxM-66UHCblack;  
ECO-xxxM-60UHCblack;ECO-xxxM-55UHCblack;ECO-xxxM-54UHCblack;  
ECO-xxxM-50UHCblack;ECO-xxxM-48UHCblack;ECO-xxxM-45UHCblack;  
ECO-xxxM-40UHCblack

Twelve (12) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

#### **2-2 : P-Type mono-crystalline double glass Modules , only applicable to the following Module types:**

ECO-xxxM-72EHC-DGBF;ECO-xxxM-60EHC-DGBF;ECO-xxxM-72LHC-DGBF;  
ECO-xxxM-66LHC-DGBF;ECO-xxxM-60LHC-DGBF;ECO-xxxM-54LHC-DGBF;  
ECO-xxxM-66UHC-DGBF

Twelve (12) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

**2-3: HJT,N-Type mono-crystalline double glass Modules , only applicable to the following**

**Module types:**

ECO-xxxM-78S; ECO-xxxM-66S; ECO-xxxM-66Sblack  
ECO-xxxM-54LHC-DGH;ECO-xxxM-60LHC-DGH;ECO-xxxM-66LHC-DGH;  
ECO-xxxM-72LHC-DGH;  
ECO-xxxM-54UHC-DGH;ECO-xxxM-60UHC-DGH;ECO-xxxM-66UHC-DGH

Thirty (30) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

**2-4: Shingled mono-crystalline Modules, only applicable to the following Module types:**

ECO-xxxM-78SA;ECO-xxxM-78SAF;ECO-xxxM-72SB;ECO-xxxM-72SBF;  
ECO-xxxM-66SA;ECO-xxxM-66SAF;ECO-xxxM-60SB;ECO-xxxM-60SBF;  
ECO-xxxM-68BSC;ECO-xxxM-69BSC;ECO-xxxM-65BSC;ECO-xxxM-57BSC;  
ECO-xxxM-58BSC;ECO-xxxM- 54BSC;ECO-xxxM-46SC;ECO-xxxM-46SCF;  
ECO-xxxM-44SC;ECO-xxxM-44SCF

Fifteen (15) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

**2.5: TOPCON,N-Type mono-crystalline Modules , only applicable to the following**

**Module types:**

ECO-xxxM-72LHC(topcon);ECO-xxxM-66LHC(topcon);ECO-xxxM-60LHC(topcon);  
ECO- xxxM-54LHC(topcon);ECO-xxxM-72LHCblack(topcon);  
ECO-xxxM-66LHCblack(topcon);ECO- xxxM-60LHCblack(topcon);  
ECO-xxxM-54LHCblack(topcon);ECO-xxxM-66UHC(topcon);  
ECO- xxxM-60UHC(topcon);ECO-xxxM-55UHC(topcon);ECO-xxxM-54UHC(topcon);  
ECO-xxxM- 50UHC(topcon);ECO-xxxM-48UHC(topcon);ECO-xxxM-45UHC(topcon);  
ECO-xxxM- 40UHC(topcon);ECO-xxxM-66UHCblack(topcon);  
ECO-xxxM-60UHCblack(topcon);ECO- xxxM- 55UHCblack(topcon);  
ECO-xxxM-54UHCblack(topcon);ECO-xxxM- 50UHCblack(topcon);  
ECO- xxxM-48UHCblack(topcon);ECO-xxxM-45UHCblack(topcon);  
ECO- xxxM-40UHCblack(topcon)

Twenty (20) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

**2-6: TOPCON,N-Type mono-crystalline double glass Modules , only applicable to the following Module types:**

ECO-xxxM-54LHC-DGBF black;ECO-xxxM-54LHC-DGBF;ECO-xxxM-60LHC-DGBF;  
ECO-xxxM-66LHC-DGBF;ECO-xxxM-72LHC-DGBF;  
ECO-xxxM-54LHC-DGT;ECO-xxxM-60LHC-DGT;ECO-xxxM-66LHC-DGT;  
ECO-xxxM-72LHC-DGT;  
ECO-xxxM-54UHC-DGT;ECO-xxxM-60UHC-DGT;ECO-xxxM-66UHC-DGT

Thirty (30) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

**2-7: IBC, N-Type mono-crystalline Modules , only applicable to the following Module types:**

ECO-xxxM-60EHCblack(IBC);ECO-xxxM-60EHC(IBC);ECO-xxxM-66EHCblack(IBC);  
ECO-xxxM-66EHC(IBC);

Thirty (30) Years Repair, Replacement or Refund Remedy following the Warranty Start Date.

### **3. LIMITED POWER WARRANTY.**

ECO warrants that the Degradation Rate shall not exceed the amount for the applicable period following the Warranty Start Date as set forth below (“Module Limited Power Warranty”).

#### **3-1 : P-Type mono-crystalline Modules and poly-crystalline Modules, only applicable to the following Module types:**

ECO-xxxM-72;ECO-xxxM-60;ECO-xxxP-72;ECO-xxxP-60;ECO-xxxM-72EHC;  
ECO-xxxM-60EHC;ECO-xxxM-60black;ECO-xxxM-60HCblack;  
ECO-xxxM-60Dblack;ECO-xxxM-60DHCblack;ECO-xxxM-60EHCblack;  
ECO-xxxM-72LHC;ECO-xxxM-66LHC;ECO-xxxM-60LHC;ECO-xxxM-54LHC;  
ECO-xxxM-72LHCblack;ECO-xxxM-66LHCblack;ECO-xxxM-60LHCblack;  
ECO-xxxM-54LHCblack;ECO-xxxM-66UHC;ECO-xxxM-60UHC;  
ECO-xxxM-55UHC;ECO-xxxM-54UHC;ECO-xxxM-50UHC;ECO-xxxM-48UHC;  
ECO-xxxM-45UHC;ECO-xxxM-40UHC;ECO-xxxM-66UHCblack;  
ECO-xxxM-60UHCblack;ECO-xxxM-55UHCblack;ECO-xxxM-54UHCblack;  
ECO-xxxM-50UHCblack;ECO-xxxM-48UHCblack;ECO-xxxM-45UHCblack;  
ECO-xxxM-40UHCblack

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.

#### **3-2 : P-Type mono-crystalline double glass Modules , only applicable to the following Module types:**

ECO-xxxM-72EHC-DGBF;ECO-xxxM-60EHC-DGBF;ECO-xxxM-72LHC-DGBF;  
ECO-xxxM-66LHC-DGBF;ECO-xxxM-60LHC-DGBF;ECO-xxxM-54LHC-DGBF;  
ECO-xxxM-66UHC-DGBF

2% in the first year; 0.54% 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 85% of the Nominal Power Output.

#### **3-3 : HJT,N-Type mono-crystalline double glass Modules , only applicable to the following Module types:**

ECO-xxxM-78S; ECO-xxxM-66S; ECO-xxxM-66Sblack  
ECO-xxxM-54LHC-DGH;ECO-xxxM-60LHC-DGH;ECO-xxxM-66LHC-DGH;  
ECO-xxxM-72LHC-DGH;  
ECO-xxxM-54UHC-DGH;ECO-xxxM-60UHC-DGH;ECO-xxxM-66UHC-DGH

1% in the first year; 0.25% 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 91.75% of the Nominal Power Output.

#### **3-4 : Shingled mono-crystalline Modules, only applicable to the following Module types:**

ECO-xxxM-78SA;ECO-xxxM-78SAF;ECO-xxxM-72SB;ECO-xxxM-72SBF;  
ECO-xxxM-66SA;ECO-xxxM-66SAF;ECO-xxxM-60SB;ECO-xxxM-60SBF;  
ECO-xxxM-68BSC;ECO-xxxM-69BSC;ECO-xxxM-65BSC;ECO-xxxM-57BSC;  
ECO-xxxM-58BSC;ECO-xxxM- 54BSC;ECO-xxxM-46SC;ECO-xxxM-46SCF;  
ECO-xxxM-44SC;ECO-xxxM-44SCF

2% in the first year; 0.55% 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 82.05% of the Nominal Power Output.

**3-5: TOPCON,N-Type mono-crystalline Modules , only applicable to the following**

**Module types:**

ECO-xxxM-72LHC(topcon);ECO-xxxM-66LHC(topcon);ECO-xxxM-60LHC(topcon);  
ECO- xxxM-54LHC(topcon);ECO-xxxM-72LHCblack(topcon);  
ECO-xxxM66LHCblack(topcon);ECO- xxxM-60LHCblack(topcon);  
ECO-xxxM-54LHCblack(topcon);ECO-xxxM-66UHC(topcon);  
ECO- xxxM-60UHC(topcon);ECO-xxxM-55UHC(topcon);ECO-xxxM-54UHC(topcon);  
ECO-xxxM- 50UHC;ECO-xxxM-48UHC;ECO-xxxM-45UHC(topcon);  
ECO-xxxM-40UHC(topcon);ECO-xxxM-66UHCblack(topcon);  
ECO-xxxM60UHCblack(topcon);ECO-xxxM- 55UHCblack(topcon);  
ECO-xxxM-54UHCblack(topcon);ECO-xxxM-50UHCblack(topcon);  
ECO- xxxM-48UHCblack(topcon);ECO-xxxM-45UHCblack(topcon);  
ECO-xxxM-40UHCblack(topcon)

1% in the first year; 0.39% 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 87.4% of the Nominal Power Output.

**3-6: TOPCON,N-Type mono-crystalline double glass Modules , only applicable to the following Module types:**

ECO-xxxM-54LHC-DGBF black;ECO-xxxM-54LHC-DGBF;ECO-xxxM-60LHC-DGBF;  
ECO-xxxM-66LHC-DGBF;ECO-xxxM-72LHC-DGBF;  
ECO-xxxM-54LHC-DGT;ECO-xxxM-60LHC-DGT;ECO-xxxM-66LHC-DGT;  
ECO-xxxM-72LHC-DGT;  
ECO-xxxM-54UHC-DGT;ECO-xxxM-60UHC-DGT;ECO-xxxM-66UHC-DGT

1% in the first year; 0.39% 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 87.4% of the Nominal Power Output.

**3-7: IBC,N-Type mono-crystalline Modules , only applicable to the following Module types:**

ECO-xxxM-60EHCblack(IBC);ECO-xxxM-60EHC(IBC);ECO-xxxM-66EHCblack(IBC);  
ECO-xxxM-66EHC(IBC);

1% in the first year; 0.248% 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 91.8% of the Nominal Power Output.

**4. POWER DEFINITIONS.**

“**Nominal Power Output (PO<sub>0</sub>)**” means the original manufactured nameplate specification of the Module, expressed in Watts, as certified by ECO DELTA and indicated on the Module, excluding any specified positive tolerance. “**Actual Power Output (PO<sub>t</sub>)**” means the power output of the Module, expressed in Watts, at Watt peak that a Module generates or, for a Bifacial Module, that the front-side of a Bifacial Module generates, at a given point in time in a year after the Warranty Start Date (**t**) in its ‘Maximum Power Point’ under Standard Test Conditions, corrected for any measurement error (“**STC**”). STC are as follows, measured in accordance with IEC 61215: (a) light spectrum of AM 1.5; (b) an irradiation of 1000W per m<sup>2</sup>; and (c) a cell temperature of 25 degrees centigrade at right angle irradiation. The



“**Degradation Rate (DR)**” shall be any positive amount calculated in accordance with the following formula, expressed as a percent:

$$DR = 1.00 - [(PO_t) / (PO_0)]$$

## **5. CLAIMS.**

Customer shall bear the burden of establishing a breach of the Warranties hereunder. If Customer believes there has been a breach of the Limited Product Warranty or Limited Power Warranty (collectively, “Warranties”), then Customer shall promptly, and not later than Thirty (30) days after knowledge thereof, provide notice to ECO DELTA setting forth the following information related to the claim: (a) party making claim; (b) detailed description; (c) evidence, including photographs and data; (d) relevant serial numbers; (e) Warranty Start Date; (f) Module type; (g) physical address; (h) any additional evidence reasonably requested by ECO DELTA; and (i) upon request from ECO DELTA, the actual Module(s) allegedly causing the breach. Notwithstanding anything to the contrary herein, ECO DELTA shall be entitled, in ECO’s sole discretion upon written notice to Customer, to require that any breach of the Warranties alleged by Customer be reviewed by TÜV or other neutral third party testing laboratory selected by ECO DELTA and approved by Customer, such approval not to be unreasonably withheld or delayed (“Independent Testing Lab”). The power measurement tolerance of any testing equipment utilized by any Independent Testing Lab in performing tests required by this Section 5 shall be disclosed in writing to both Parties prior to performance of any such tests and shall be reflected in any final test results provided by the Independent Testing Lab. The determination by an Independent Testing Lab as to whether a breach has occurred shall be final and conclusive with respect to the matters covered by such determination. ECO DELTA shall be responsible for all costs incurred by it in connection with the shipment by Customer of a Module pursuant to Section 5(i) hereto and any Independent Testing Lab’s services provided pursuant to this Section 5, including shipping, testing services, storage, insurance and any Module destruction incidental thereto; provided, however, Customer shall promptly upon receipt of notice indemnify ECO DELTA for all such costs on a euro -for- euro basis in the event the Independent Testing Lab is unable to confirm a breach of the Warranties or, if no Independent Testing Lab was utilized, Customer is otherwise unable to establish a breach of the Warranties.

## **6. REMEDIES.**

In ECO’s sole discretion, ECO DELTA shall repair, replace or provide additional modules compensating for the related power loss for any Module which causes a breach of the Warranties. Additional, repaired or replacement Modules shall be delivered to the same destination and on the same INCOTERMS 2020 delivery basis that the original Module causing breach of the Warranties was delivered under the purchase agreement to which this Limited Warranty applies. Replaced Modules received by ECO DELTA pursuant to Section 5 shall be the sole property of ECO DELTA. ECO DELTA shall be solely responsible for all shipping costs incurred performing its additional supply, repair or replacement obligations under this Section 6. Additional or replacement Modules shall be of the same type and physical form as the original Module, electrically compatible with the original Module, and have an electrical output of not less than the warranted power output of the original Module at the time of supply or replacement, based on the warranted degradation rates set forth at Section 3 hereto. Notwithstanding the foregoing, if ECO DELTA no longer supplies Modules meeting the foregoing criteria, then additional or replacement modules provided under this Section 6 shall be those modules then supplied by ECO DELTA most substantially meeting the foregoing criteria. ECO’s performance of any repair, replacement or additional supply pursuant to this Section 6 shall not extend the term of any Warranties.

## **7. EXCLUSIONS.**

This Limited Warranty is subject to the exclusions set forth in this Section 7. The Warranties shall





not apply to any Module which has been: (a) altered, repaired or modified without the prior written consent of ECO DELTA or otherwise inconsistent with ECO's written instructions; (b) removed and re-installed at any location other than the physical location in which it was originally installed following purchase by Customer or receipt from ECO DELTA as a replacement Module; (c) subject to misuse, abuse, neglect, or accident except as may be caused by ECO DELTA in the course of storage, transportation, handling, installation, application, use or service; (d) subject to force majeure, electrical surges, lightning, flood, fire, vandalism, tampering, accidental breakage, or other events beyond ECO's control, resulting in material damage to the Module; (e) installed on mobile platforms (other than single or dual-axis trackers) or in a marine environment; (f) subject to direct contact with corrosive agents or salt water, pest damage, or malfunctioning PV system components. The Warranties shall not apply to any Module for which the labels thereon indicating type or serial number have been altered, removed or made illegible. The Warranties shall not apply to any Module for which full and final payment has not been received by ECO DELTA.

## **8. LIMITS OF LIABILITY.**

**NOTWITHSTANDING ANYTHING TO THE CONTRARY IN THIS LIMITED WARRANTY, EXCEPT AS EXPRESSLY PROVIDED HEREIN, ECO DELTA MAKES NO WARRANTIES, GUARANTEES OR CONDITIONS, EXPRESS OR IMPLIED, ARISING FROM OR RELATING TO THE MODULES AND ECO DELTA DISCLAIMS ANY WARRANTY OR GUARANTEE IMPLIED BY LAW, INCLUDING IMPLIED WARRANTIES OF PERFORMANCE, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND IMPLIED WARRANTIES OF CUSTOM OR USAGE, ARISING FROM OR RELATING TO THE MODULES. THE REMEDIES FOR BREACH OF THIS WARRANTY ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES ARISING FROM OR RELATING TO ANY BREACH OF THE WARRANTIES. IN NO EVENT SHALL ECO DELTA BE RESPONSIBLE PURSUANT TO THIS WARRANTY FOR ANY PERFORMANCE ANALYSIS, INSPECTION, DIAGNOSIS, REMOVAL, CUSTOMS, IMPORT DUTIES, EXPORT DUTIES, TAXES, REINSTALLATION COSTS, SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER, INCLUDING LOSSES OR DAMAGES CAUSED BY REASON OF LOSS OF USE, LOSS OF PROFITS OR REVENUE, INTEREST CHARGES (EXCEPT AS EXPRESSLY PROVIDED HEREIN), LOSS OF BONDING CAPACITY, COST OF CAPITAL OR CLAIMS OF CUSTOMER DAMAGES, WHETHER LIABILITY ARISES AS A RESULT OF BREACH OF CONTRACT, TORT LIABILITY (INCLUDING NEGLIGENCE), STRICT LIABILITY, BY OPERATION OF LAW OR IN ANY OTHER MANNER. EXCEPT AS SET OUT IN THIS LIMITED WARRANTY, ECO DELTA 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 THIS LIMITED WARRANTY.**

## **9. ASSIGNMENT.**

Notwithstanding anything to the contrary herein, this Limited Warranty is for the sole and exclusive benefit of Customer and there are no third party beneficiaries hereof; provided, however, subject to written notice to ECO DELTA and ECO's receipt of full and final payment for the Modules, this entire Limited Warranty may be assigned in whole but not in part to any person or entity. Any permitted assignee of this Limited Warranty shall execute such agreements as may reasonably be requested by ECO DELTA to confirm the applicability of any term hereof as a condition to assignment.



#### **10. LAW AND FORUM.**

Any dispute related to or arising out of this Limited Warranty, including without limitation any question regarding its existence, validity, breach, or termination, shall be referred to and finally, resolved pursuant to the governing law clauses and dispute resolution procedures under the purchase agreement between the original purchaser and ECO DELTA. As a condition to any obligation of ECO DELTA hereunder, ECO DELTA may require any Customer seeking to enforce this Limited Warranty to execute such additional agreements as may reasonably be required to enforce the terms of this Section 11.

#### **11. MERGER CLAUSE.**

This Limited Warranty sets forth the entire agreement and understanding of the Parties relating to the subject matter herein and supersedes all prior or contemporaneous discussions, understandings and agreements, whether oral or written, between them relating to the subject matter hereof.

#### **12. SEVERABILITY.**

If one or more provisions of this Limited Warranty are held to be unenforceable under applicable law, the Parties agree to renegotiate such provision in good faith. In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (a) such provision shall be excluded from this Limited Warranty, (b) the balance of this Limited Warranty shall be interpreted as if such provision were so excluded and (c) the balance of this Limited Warranty shall be enforceable in accordance with its terms.

#### **13. MISCELLANEOUS.**

The terms of this Limited Warranty are conditioned upon their incorporation in a contractual agreement between ECO DELTA and Customer, and when incorporated to such contractual agreement, this Limited Warranty shall be subject to the terms thereof and subject to modification when incorporated therein. ECO DELTA reserves the right to modify or update this Limited Warranty at any time, with or without notice.

#### **ECO DELTA POWER CO.,LTD**

Office: No.47 Qingyang Road, Tianning ,Changzhou City, Jiangsu Province ,China

Website: [www.ecodeltapower.com](http://www.ecodeltapower.com)

Email: [info@ecodeltapower.com](mailto:info@ecodeltapower.com)