

Limited Warranty for JA Solar Brand Crystalline Solar PV Modules

This Limited Warranty for JA Solar Brand Crystalline Solar PV Modules (hereinafter referred to as “**Limited Warranty**”) is issued by JingAo Solar Co., Ltd.(JINGAO SOLAR CO., LTD.), which is headquartered at Building No.8, Noble Center, Automobile Museum East Road, Fengtai District, Beijing, China (100160), or its legal successors or assigns (hereinafter collectively referred to as “**JA Solar**”), and applies exclusively to Modules (as defined in Section 1 hereof).

1. Definition of Modules:

Modules are defined in this Limited Warranty as photovoltaic solar modules manufactured by JA Solar or its authorized manufacturers, legitimately bearing “JA Solar” brand, that are of the following product types:

Mono-crystalline single glass products:

JAM54 SXX -XXX / XX;

JAM60 SXX -XXX / XX;

JAM72 SXX -XXX / XX;

JAM66 SXX-XXX / XX;

JAM78 SXX -XXX / XX;

Mono-crystalline double glass products:

JAM60 DXX -XXX / XX;

JAM72 DXX -XXX / XX;

JAM66 DXX-XXX / XX;

JAM78 DXX -XXX / XX;

Poly-crystalline single glass products:

JAP60 SXX -XXX / XX;

JAP72 SXX -XXX / XX ;

Poly-crystalline double glass products:

JAP60 DXX -XXX / XX;

JAP72 DXX -XXX / XX ;

Note: “X” represents different types of product under different power class.

2. Effective Date, Beneficiary and Warranty Start Date:

2.1 This Limited Warranty takes effect on [9th] [Sep], 2020(hereinafter referred to as “**Effective Date**”) and applies to Modules first sold after the Effective Date (the date of sale shall be the date indicated in the contracts for the supply of the relevant Modules signed by JA Solar and its affiliates that sold the Modules). Modules sold before the Effective Date is still subject to the Limited Warranty applicable at the time of sale. This version of the Limited Warranty shall remain in effect for the duration of the Limited Product Warranty Period and Limited Peak Power Warranty Period for the applicable Modules covered.

2.2 The sole and exclusive beneficiary of this Limited Warranty is the initial end customer who purchases Modules directly or indirectly from JA Solar or from any one of its authorized manufacturers or distributors or from any other legitimate source, and is the initial owner of such Modules (hereinafter referred to as “**Customer**”), and any of such Customer's permitted successors or assigns under Section 7. Upon JA Solar’s written request, Customer shall confirm ownership of the Modules.

2.3 The term of this Limited Warranty starts from the earlier of: (i) the date of initial delivery to the Customer by JA Solar or its authorized manufacturer, or (ii) six (6) calendar months after Modules dispatch from the JA Solar factory as indicated by the serial numbers for such Modules (hereinafter referred to as “**Warranty Start Date**”).

3. Limited Warranty:

3.1 Limited Product Warranty:

Subject to the terms and conditions of this Limited Warranty, JA Solar warrants to the Customer for a period of one hundred and forty-four (144) calendar months following the Warranty Start Date (hereinafter referred to as “**Limited Product Warranty Period**”) that the Modules (together with the factory-assembled DC connectors and

cables), when installed, used, and serviced under normal operating conditions and in accordance with the JA Solar module installation manual, product technical specifications and maintenance manual (which, if not provided in the supply contract, can be downloaded from JA Solar' official website at www.jasolar.com) will:

- 1) be free from any defects in design, materials, workmanship or manufacturing that have a negative effect on the functioning of the Modules; and,
- 2) Comply with the design and technical specifications in the product technical specifications related to the Modules.

(Hereinafter referred to as “**Limited Product Warranty**”).

The Limited Product Warranty does not cover any changes in appearance (including but not limited to color changes) and normal wear and tear (including but not limited to scratches, contamination, mechanical wear, rust, mildew and other forms of natural wear and tear) that occur after the delivery or installation of the Modules. The Limited Product Warranty does not warrant a specific power output or performance of any Modules, which shall be exclusively covered under Section 3.2 below.

3.2 Limited Peak Power Warranty

Subject to the terms and conditions of this Limited Warranty, JA Solar provides to the Customer a Limited Peak Power Warranty with a term of 25 years for single glass Modules or 30 years for double glass Modules from the Warranty Start Date (“**Limited Peak Power Warranty Period**”):

- 1) for mono-crystalline single glass Modules (whose product types are:
 JAM54 SXX -XXX / XX;
 JAM60 SXX -XXX / XX;
 JAM72 SXX -XXX / XX;
 JAM66 SXX-XXX / XX;
 JAM78 SXX-XXX / XX);

the Degradation Rate shall not exceed 2% in the first year beginning from the Warranty Start Date, and an additional 0.55% each year thereafter from the beginning of the second year until that date which is twenty-five (25) years following the Warranty Start Date, at which time the Peak Power Output shall be not less than 84.8% of the Nominal Power Output;

- 2) for poly-crystalline single glass Modules (whose product types are:
 JAP60 SXX-XXX / XX;
 JAP72 SXX-XXX / XX);

the Degradation Rate shall not exceed 2.5% in the first year beginning from the Warranty Start Date, and an additional 0.7% each year thereafter from the beginning of the second year until that date which is twenty-five (25) years following the Warranty Start Date, at which time the Peak Power Output shall be not less than 80.7% of the Nominal Power Output;

- 3) for mono-crystalline double glass Modules (whose product types are:
 JAM60 DXX-XXX / XX;
 JAM72 DXX-XXX / XX;
 JAM66 DXX-XXX / XX;
 JAM78 DXX-XXX / XX);

the Degradation Rate shall not exceed 2% in the first year beginning from the Warranty Start Date, and an additional 0.45% each year thereafter from the beginning of the second year until that date which is thirty (30) years following the Warranty Start Date, at which time the Peak Power Output shall be not less than 84.95% of the Nominal Power Output; and,

- 4) for poly-crystalline double glass Modules (whose product types are:
 JAP60 DXX-XXX / XX;
 JAP72 DXX-XXX / XX);

the Degradation Rate shall not exceed 2.5% in the

first year beginning from the Warranty Start Date, and an additional 0.5% each year thereafter from the beginning of the second year until that date which is thirty (30) years following the Warranty Start Date, at which time the Peak Power Output shall be not less than 83% of the Nominal Power Output.

(Hereinafter referred to as “**Limited Peak Power Warranty**”)

Note: “X” represents different types of product under different power class.

For the avoidance of doubt, unless otherwise specified in this Limited Warranty, the terms used in the Limited Peak Power Warranty shall have the following meanings:

“**Nominal Power Output**” means the power output measured for the Modules under the Standard Test Conditions, as indicated on its original nameplate, excluding any positive tolerance that may exist in the Modules.

“**Standard Test Conditions**” or “**STC**”: (a) light spectrum of AM 1.5; (b) an irradiation of 1000W per square meter; and (c) a cell temperature of 25 degrees centigrade at right angle irradiation. The measurements are carried out in accordance with IEC61215 (equivalent to GB/T 9535) as tested at the junction box terminals per the calibration and testing standards of JA Solar valid at the date of manufacture of the Modules. JA Solar’s calibration standards shall comply with the standards applied by international institutions accredited for this purpose.

“**Peak Power Output**” means the power output that the Modules generates in the relevant warranty period after the Warranty Start Date under STC as measured in accordance with IEC61215, considering and corrected for any measurement uncertainty.

“**Degradation Rate**” means any positive amount calculated in accordance with the following formula, expressed as a percentage:

$$\text{Degradation Rate} = 100\% * (\text{Nominal Power Output} - \text{Peak Power Output}) / \text{Nominal Power Output}$$

For the avoidance of doubt, notwithstanding anything to the contrary herein, the Limited Peak Power Warranty for bifacial double glass series Modules shall apply only to the front-side power output of such Modules.

3.3 Exclusions:

The Limited Product Warranty provided in Section 3.1 and the Limited Peak Power Warranty provided in Section 3.2 shall not apply to the following events:

- 1) The Modules have been subject to misuse, abuse, neglect, or accident except as may be caused by JA Solar or its affiliates that sold the Modules in the course of storage, transportation or handling;
- 2) The Modules have been installed, used and serviced in a manner that fails to strictly comply with the relevant provisions of the JA Solar module installation manual, product technical specifications and maintenance manual;
- 3) The Modules have been installed or serviced by installation personnel or other personnel who do not have the relevant qualifications in violation of the relevant laws and regulations;
- 4) The Modules have been altered, repaired or modified, or used in processes or in combination with other products not supplied by JA Solar in a manner not consistent with the written instructions of or without the prior written consent of JA Solar or its affiliates;
- 5) The Modules (or the repaired or replaced or supplemented new Modules provided by JA Solar under the Limited Warranty) have been removed and re-installed at any location other than the physical location in which it was originally installed;
- 6) The product type, nameplate or serial number of the Modules have been removed, altered, erased or rendered illegible;
- 7) The design or layout of the photovoltaic power plant system in which the Modules are installed

- does not conform to the designated module application (certification) or does not meet applicable requirements (e.g. IEC 62548:2016, IEC TS 62738:2018) and generally accepted codes of practice for a safe and harmless operation.;
- 8) The Modules are installed on mobile units (except photovoltaic tracking systems), such as vehicles, ships, etc., or on offshore facilities;
 - 9) Exposure of the Modules to an extreme environment or damage caused by drastic changes in such environments, including but not limited to extreme heat, acidic rainfall (including snow), blowing sand, corrosiveness, salty air (e.g. marine environment), contaminated air, soil or groundwater, abnormal levels of oxidation, mold, or any nearby fire, explosion, smoke, or charring.
 - 10) Damage caused by force majeure such as natural disasters, including but not limited to lightning, hail, frost, snow, storms, tidal waves, floods, extreme temperatures, earthquakes, typhoons, tornadoes, volcanic eruptions, meteorites, ground motions, earth fissures, landslides, or animal damage;
 - 11) Direct or indirect damage caused by third party vandalism or acts beyond the control of JA Solar and its affiliates that sold the Modules, including but not limited to accidents, riots, war, insurrection and communal violence; and
 - 12) Damage caused by an accident at the photovoltaic power plant in which the Modules are installed due to any external factor. External factors include but are not limited to voltage fluctuations, power peaks, excess current, power failure, poor electrical or mechanical engineering work, untrained personnel, or other faults occurring in the power supply system (whether or not such failures are caused by any act or omission of the Customer).

In addition, the Limited Product Warranty provided in

Section 3.1 and the Limited Peak Power Warranty provided in Section 3.2 shall not apply to Modules for which JA Solar and its affiliates that sold the Modules have not received all or part of the receivable derived from the sale of the Modules (whether or not the Customer is the debtor for the receivable). Where JA Solar exercises the right to reject a warranty claim under this provision, the Customer may pay the outstanding payment to JA Solar to get the claim accepted. If Customer was not the debtor, then after the Customer pays the outstanding payment, it can assert a claim against the actual debtor. To this end, JA Solar can assist the Customer by issuing a debt transfer certificate.

4. Warranty Claims

4.1 Time Limit for Warranty Claims

All claims under the Limited Product Warranty must be submitted in writing to JA Solar within the Limited Product Warranty Period, while all claims under the Limited Peak Power Warranty must be submitted in writing to JA Solar within the Limited Peak Power Warranty Period. JA Solar shall have the right to reject any and all warranty claims submitted outside of the respective warranty period.

4.2 Burden of Proof for Warranty Claims

In any circumstance, the burden of proof for any warranty claim made by the Customer shall rest upon the Customer. The warranty claim will only be accepted if the Customer provides sufficient documentary evidence to fully demonstrate that **the only cause** of the fault or non-conformity in the Modules is a breach of the Limited Product Warranty and/or the Limited Peak Power Warranty.

4.3 Warranty Claim Procedures

Customer shall, as soon as it becomes aware of an instance of non-conformity with the Limited Product Warranty and/or the Limited Peak Power Warranty (such Modules involved in the warranty claim are referred to as the "**Claim Modules**"), immediately (but in any event no later than the earlier of (i) 14 calendar days after it became

aware of or should have become aware of such events, and (ii) the respective expiry date of the Limited Product Warranty Period and/or the Limited Peak Power Warranty Period for the Claim Modules) notify JA Solar's Global Customer Service department by giving it written notice sent to: Building No.8, Noble Center, Automobile Museum East Road, Fengtai District, Beijing, China (100160), Tel: 400-4230-186, or via email sent to: Services@jasolar.com.

Customer shall provide the following information along with the notice: a) cause of the claim and related supporting documents; b) proof of purchase of the Claim Modules (including but not limited to the supply contract, commercial invoice, delivery and acceptance certificate, payment voucher, etc. If Customer did not purchase the Claim Modules directly from JA Solar or one of its affiliates, it shall provide proof of purchase from the supplier that can be traced back to the supply contract, commercial invoice, etc., signed by JA Solar and its affiliates); c) product type and serial number of the Claim Modules; d) Warranty Start Date of the Claim Modules; e) place of installation of the Claim Modules; f) other additional information requested by JA Solar.

JA Solar will review and evaluate the claim. JA Solar may require the Customer to ship the Claim Modules back to JA Solar's factory for testing if it deems necessary, in which case, JA Solar will issue a return merchandise authorization (hereinafter referred to as "RMA") to Customer. **Customer shall only return the Claim Modules in accordance with the requirements of the RMA after receiving of the same issued by JA Solar. Otherwise, JA Solar shall have the right to reject the warranty claim and refuse to accept the Claim Modules returned by Customer without authorization, and the related risk of loss and expenses shall be borne by Customer.** If the Claim Modules returned are confirmed to be not in conformity with the Limited Product Warranty and/or the Limited Peak Power Warranty, JA Solar will

reimburse Customer for the actual shipping and insurance costs associated with the returning of the Claim Modules based on the invoices related to such costs provided by Customer.

JA Solar has the right to decide at its sole discretion whether to conduct an on-site investigation and verification at the installation site of the Claim Modules by a representative. If JA Solar decides to conduct on-site investigation and verification, it shall notify Customer in writing at least 10 working days in advance of its plan for such on-site investigation and verification. Customer shall reply and confirm as soon as possible after receiving written notice from JA Solar. The parties shall communicate timely and cooperative to plan and enable a constructive and efficient on-site investigation and verification. For this purpose, Customer or plant operation staff is requested to fully cooperate (technical and logistical) with JA Solar's representative during the onsite investigation. If Customer refuses JA Solar's on-site investigation and verification request without any proper reason, JA Solar shall have the right to postpone the claim processing until additional and evaluable data are provided, or if not delivered within a reasonable period of time, to reject the related warranty claim.

4.4 Technical Disputes

Any dispute on technical facts relating to claims brought under this Limited Warranty shall be finally determined by an independent third-party testing organization. JA Solar and Customer shall jointly appoint a reputable international or Chinese testing organization such as TÜV Rheinland, TÜV SUD, Intertek, UL, CQC or CGC, or any other mutually acceptable neutral third-party testing organization (hereinafter referred to as "**Third-party Testing Organization**") to determine the dispute. Neither Customer nor JA Solar shall unreasonably refuse to participate in the evaluation or delay the relevant testing and evaluation procedures, and shall provide convenience

for the relevant testing and evaluation (including but not limited to providing convenience at the installation site and/or providing convenience for JA Solar to ship the Claim Modules involved to the Third-party Testing Organization for testing). Before carrying out such testing and evaluation, the Third-party Testing Organization shall inform JA Solar and Customer of the test equipment's power tolerance, which should be reflected in the final conclusions. The Third-party Testing Organization shall act as an expert, adjudicate on the disputed technical facts, allow the parties a reasonable opportunity to make representations and counter-representations and take those representations and counter-representations into account in making final conclusions. The final conclusions arrived at by the Third-party Testing Organization shall be final, conclusive and binding on both parties, and shall be a mandatory prerequisite for the judicial assertion of a warranty claim. Reasonable expenses incurred by the Third-party Testing Organization in carrying out the evaluation shall be paid in advance by Customer, including the cost of shipping the Claim Modules to the designated testing location of the Third-party Testing Organization, insurance costs, storage costs, etc., as well as the service charges for testing and evaluation. If the Third-party Testing Organization concludes that the Claim Modules do not conform to the Limited Product Warranty and/or the Limited Peak Power Warranty, JA Solar shall reimburse for actual testing and transportation expenses prepaid by Customer upon receipt of the relevant written notice and copies of the relevant invoices. The risk of damage to and loss of the Claim Modules in the process of testing and evaluation by the Third-party Testing Organization shall be transferred at the same time as their ownership.

4.5 Ownership of the Claim Modules

The ownership of the Claim Modules is transferred to JA Solar only after JA Solar confirms Customer's warranty claim and provides replacements or refunds in accordance with the remedies provided under this Limited Warranty.

Until such time, ownership of the Claim Modules shall remain with Customer.

5. Remedy for Warranty Claims:

5.1 Remedy under the Limited Product Warranty:

Should JA Solar confirm that the Claim Modules are indeed not in conformity with the Limited Product Warranty, it shall, at its sole discretion, within a reasonable time period, either: a) repair the Claim Modules at no charge to Customer; b) provide Customer with replacement Modules in place of the Claim Modules; or c) provide Customer a refund of the purchase price as evidenced by the original supply invoice provided by Customer, subject to an annual 4% for single glass module or 3.33% for double glass module depreciation rate on the purchase price (if Customer is unable to provide the original supply invoice, monetary compensation will be made based on the then market price of an identical or similar module type). Unless the parties agree otherwise, JA Solar shall ship the repaired Modules or replacement Modules in the same manner and to the same destination as specified in the original supply contract signed by JA Solar or one of its affiliates. The cost of shipping shall be paid in the same manner as specified in the original supply contract.

5.2 Remedy under the Limited Peak Power Warranty:

Should JA Solar confirm that the Claim Modules are indeed not in conformity with the Limited Peak Power Warranty, it shall, at its sole discretion, within a reasonable time period, either: a) repair the Claim Modules at no charge to Customer; b) provide Customer with replacement Modules in place of the Claim Modules; c) provide Customer a refund of the purchase price as evidenced by the original supply invoice provided by Customer subject to an annual 4% for single glass module or 3.33% for double glass module depreciation rate on the purchase price (if the Customer is unable to provide the original supply invoice, monetary compensation will be made based on the then market price of an identical or similar module

type).

5.3 Exclusive Remedy:

The Remedy under the Limited Product Warranty and the Remedy under the Limited Peak Power Warranty as set forth above are the sole and exclusive responsibility and obligation of JA Solar to Customer under this Limited Warranty, and are also the sole and exclusive remedy of Customer for the Claim Modules under this Limited Warranty. JA Solar will only reimburse for expenses expressly stipulated in this Limited Warranty. Costs and expenses associated with removal of the Claim Modules and the reinstallation of the repaired or replacement Modules as well as customs clearance costs incurred by the return of the Claim Modules (if any) shall be borne by Customer. JA Solar's performance of its warranty obligation under this Limited Warranty shall not extend the Limited Product Warranty Period or the Limited Peak Power Output Warranty Period. The original warranty periods shall still apply to the repaired or replacement Modules. If the production of the same type of the Claim Modules has been discontinued, withdrawn from the market, or is otherwise unavailable, JA Solar shall have the right to replace the Claim Modules with a similar type, the performance of which should not be lower than the original type.

6. Limitation of Liability:

1) Notwithstanding anything to the contrary herein, the warranties set forth in this Limited Warranty are in lieu of all other warranties, whether express, implied, or statutory, including but not limited to any implied warranties of merchantability, fitness for a particular purpose or non-infringement. However, if Customer is identified as a “consumer” and the Modules as a “consumer product” in accordance with the laws governing

the protection of consumer rights in the country where the Modules were first installed, to the extent required by applicable law, any implied warranties of merchantability, fitness for a particular purpose or non-infringement are limited to the Limited Product Warranty Period or the Limited Peak Power Output Warranty Period set forth above, or such shorter period as required by applicable law. This Limited Warranty gives Customer specific legal rights, and Customer may also have other rights that vary by state, province or jurisdiction, and such other rights shall remain unaffected.

2) Unless otherwise provided by applicable mandatory law in the country where the Modules were first installed, JA Solar shall not be liable for any of the following losses: a) personal injury or property damage; b) any other loss or injury whatsoever arising out of or in connection with the Modules (including but not limited to any defects in the Modules or arising from the use or installation thereof); c) any incidental, consequential or special damages resulting from any cause; and d) lost power, lost profits, lost production, lost revenue or lost interest caused by the non-usability of the Modules, even if JA Solar was aware of the possibility of such damages. JA Solar's liability for fraudulent or willful intent, gross negligence or personal injury, in each case, under applicable mandatory liability law shall remain unaffected. Notwithstanding any other provision of this Limited Warranty, and including if JA Solar is liable to compensate Customer hereunder, the total compensation paid or payable by JA Solar, and the total liability of JA Solar hereunder, shall not exceed the amount actually received by JA Solar as

indicated in the original invoice for the Claim Modules. The limitations of liability under this Limited Warranty will not apply to the extent restricted or prohibited by applicable mandatory law.

- 3) **Customer acknowledges that the foregoing limitations on liability are an essential element of the relevant supply contract between the parties and that in the absence of such limitations the purchase price of the relevant Modules would be substantially higher.**
- 4) **JA Solar has adopted reasonable methods such as bolding, blackening and highlighting to draw the Customer's attention to clauses which exclude or limit its liability under this Limited Warranty, and have fully explained the relevant clauses as required by Customer. There is no disagreement between the parties over the understanding of any clause of this Limited Warranty.**

7. Assignment

Upon written notice to JA Solar, Customer may assign this Limited Warranty to a new owner of the entire power plant project in which such Modules were originally installed, provided that: (i) the Modules remain in their original place of installation, (ii) there is no outstanding payment due under the supply contract; and (iii) the assignee agrees to be bound by these Limited Warranty terms. If requested by JA Solar, Customer shall provide reasonable evidence of such succession or transfer of ownership. This Limited Warranty may not otherwise be assigned or transferred, and any attempt to assign or transfer in violation of this Section 7 shall be null and void.

8. Miscellaneous

8.1 Severability

If any portion or provision of this Limited Warranty is held to be invalid, illegal or unenforceable under applicable law,

or the application of such portion or provision to certain persons or in certain circumstances is held to be invalid, illegal or unenforceable, then the portion or provision shall be deemed to be changed and interpreted to accomplish the objectives of such portion or provision to the greatest extent possible under applicable law and the remaining portions or provisions of this Limited Warranty or the applicability of this Limited Warranty will remain unaffected, independent and valid.

8.2 Force Majeure:

JA Solar shall not be responsible or liable in any way to Customer for any non-performance or delay in JA Solar's performance of its obligations under this Limited Warranty due to occurrences of force majeure events such as natural disasters, war, riots, strikes, unavailability of suitable or sufficient labor, material, or capacity or technical or yield failures and any unforeseen event beyond its control, including, without limitation, any technological or physical event or condition which is not reasonably known or understood by JA Solar at the time of the sale of the Claim Modules or the notification by Customer of the relevant warranty claim.

8.3 Governing Law and Dispute Resolution

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 supply contract between the original purchaser and JA Solar. As a condition to any obligation of JA Solar hereunder, JA Solar 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. The laws governing this Limited Warranty shall exclude any conflicts-of-law rule as well as the United Nations Convention on Contracts for the International Sale of Goods (CISG) concluded on April 11,

1980 and any other uniform code.