

# PV MODULE WARRANTY

FOR 48/54/56/60 MODULES



Dear client:

Thank you for purchasing products manufactured by DAH Solar Co., Ltd. and its authorized affiliates (hereinafter referred to as "DAH Solar"). The PV module products referred to in this "Limited Warranty" are: modules legally labeled with the DAH Solar trademark (DAH Solar) and produced by DAH Solar or its authorized manufacturers (Grade A quality, not downgraded or scrapped modules).

## 25-Year Limited Product Warranty

DAH Solar guarantees that the photovoltaic modules (referred to as "modules") it manufactures, including factory-assembled DC connectors and cables, under normal application, installation, use, and service conditions, are free from defects in materials and workmanship for a period of 300 months from the warranty start date (Warranty Start Date: the date the sales contract is signed by both parties) (hereinafter referred to as the "Limited Product Warranty Period"). The aforementioned defects do not include changes in the product's appearance after installation or normal wear and tear of the product. This "Limited Product Warranty" does not include specific power output (this item will only be specified in Article 2 "Limited Peak Power Warranty" below).

## Limited Peak Power Warranty

DAH Solar guarantees that the loss of the initial guaranteed power, the product of the maximum peak output power and the minimum tolerance of the modules as specified on the module nameplate and determined in accordance with the Standard Test Conditions (STC), from the warranty start date shall not exceed:

1. Polycrystalline products: the loss is 2.5% in the first year, and 0.7% every year thereafter. The power output efficiency in the 25th year after the warranty start date is calculated to be not less than 80.7%.

2. Monocrystalline PERC products: the loss is 2.0% in the first year, and 0.55% every year thereafter. The power output efficiency in the 25th year after the warranty start date is calculated to be not less than 84.8%.

3. Monocrystalline PERC bifacial or double-glass products: the loss is 2.0% in the first year, and 0.45% every year thereafter. The power output efficiency in the 25th year after the warranty start date is calculated to be not less than 84.95%.

4. Monocrystalline N-type single-sided or double-sided or double-glass products: the loss is 1.0% in the first year, and 0.4% every year thereafter. The power output efficiency in the 30th year after the warranty start date is calculated to be not less than 87.40%.

Please refer to the example formula below for the specific calculation method:

Taking Monocrystalline N-type single-sided or double-sided or double-glass products as an example:

Actual Output Power (Year 1)  $\geq$  Nameplate Power \* (1 - 1%)

Actual Output Power (Year N, 2  $\leq$  N  $\leq$  30)  $\geq$  Nameplate Power \* (1 - (1% + 0.40% \* (N-1)))

The actual output power of the product can only be measured under Standard Test Conditions (STC) (see definition below). The measurement of actual output power shall be performed by a third-party measurement institution recognized or designated by DAH Solar. In all actual output power measurements, the influence of test uncertainty shall be considered according to IEC 60904; in all actual output power measurements, according to IEC 61215:2021, "light soaking" treatment must be performed first, followed by power measurement.

Standard Test Conditions (STC) are: Atmospheric Mass AM1.5, wind speed = 0m/s, irradiance 1000W/m<sup>2</sup>, irradiation at a right angle, cell temperature 25°C.

## Scope of Application of this Limited Warranty

Applicable to the following model products:

|           |           |           |           |           |           |         |
|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| DHM-54X10 | DHN-54X16 | DHN-54R18 | DHN-54R20 | DHN-48Z16 | DHN-48Z20 | DHT-M56 |
| DHM-60X10 | DHN-60X16 | DHN-60R18 | DHN-60R20 | DHN-54Z16 | DHN-54Z20 |         |

## Exclusions and Limitations

This Limited Warranty does not apply to the following situations:

A. Have been subject to misuse, abuse, negligence, or accident during storage, transportation, or handling not attributable to DAH Solar (including but not limited to collision damage, liquid immersion, etc.);

B. Have been improperly installed, used, or maintained not in strict compliance with the relevant provisions of DAH Solar's module installation manual, product technical specifications, and maintenance manual;

C. Have been installed or maintained by installers or other personnel not recognized by DAH Solar or without appropriate qualifications as required by relevant laws and regulations;

D. Without DAH Solar's written consent or written instructions, altering, repairing, or modifying PV module products, or using PV module products for processing other products not supplied by DAH Solar;

E. Have had the module model, nameplate, or serial number removed, altered, erased, or rendered unrecognizable by other factors;

F. Have been applied by the buyer or end-user under extremely hot (referring to temperatures exceeding the module's operating environment temperature) or extreme environmental conditions or rapidly changing application environments (including but not limited to: extreme heat/cold, acidic rain/snow, high blowing sand, corrosive, saline air (e.g., marine environment, etc.), polluted air, soil, or groundwater, abnormal oxidation levels, mold, or any nearby fire, explosion, smoke, or scorching, etc.), causing product damage or malfunction due to corrosion, oxidation, or chemical product influence;

G. Are installed on mobile equipment (except for photovoltaic tracking systems expressly agreed by DAH Solar) such as vehicles, ships, etc.;

H. Have been damaged due to power failures, power surges, accidental damage, or force majeure factors attributable to the buyer or end-user, including but not limited to: lightning, hail, frost, snowstorms, storms, tsunamis, floods, fire, extreme temperatures, earthquakes, typhoons, tornadoes, volcanic eruptions, meteorite impacts, ground movement, cracks, landslides, or animal attacks, etc.;

I. Exhibit warping deformation or partial sinking after installation to some extent due to the physical characteristics of material thermal expansion, provided this does not affect the installation, use, and reliability of the module;

J. Have been subjected to pressurization exceeding the maximum system voltage or surges;

K. Are used by the buyer or end-user in a manner that infringes upon the intellectual property rights (including but not limited to patent rights, trademark rights, etc.) of DAH Solar or any third party.

Neither the "Limited Product Warranty" nor the "Limited Peak Power Warranty" covers: costs associated with the installation, disassembly, or transportation of PV modules; costs for loss of power generation; and any customs clearance or other charges incurred during the import/export of PV modules.

Unless DAH Solar expressly agrees, signs, and acknowledges other obligations and liabilities in writing, the "Limited Warranty for Photovoltaic Modules" specified herein expressly replaces and excludes all other express or implied warranties (including but not limited to warranties of merchantability, warranties applicable to special purposes, uses, or applications), as well as all other obligations or liabilities of DAH Solar. DAH Solar is not liable for personal injury or property damage, nor

for other losses or injuries caused by or related to the modules (including but not limited to any defects of the modules, any defects arising from use and installation). Under no circumstances shall DAH Solar be liable for incidental, indirect, or special losses caused by any reason. DAH Solar shall not be liable for any loss of utility, production, income, or profit. If DAH Solar is liable for damages or other liabilities to its clients, the total amount of its compensation shall not exceed the invoice price corresponding to the defective PV modules that the clients have already paid for and that DAH has received.

## Performance of Warranty

### · Warranty Claim

If the client believes that a module does not meet the requirements of the "Limited Product Warranty" or "Limited Peak Power Warranty", the client shall promptly notify the corresponding DAH Solar sales department, DAH Solar after-sales department, or submit a notification on the DAH Solar official website page in writing or by email within thirty (30) days from the date of knowing or should have known of such circumstance. The notification shall be accompanied by all the following information:

- (1) Claimant information      (2) Module location      (3) Detailed description of the claim  
(4) Supporting materials such as relevant photos or test reports      (5) Relevant module serial number(s), module model(s), and quantity involved  
(6) Other supplementary supporting materials requested by the supplier      (7) Proof of purchase

After receiving the client's claim request and complete information materials, DAH Solar will review and evaluate the relevant claim request. During the problem acceptance stage, if DAH Solar deems it necessary, the client is obligated to cooperate with DAH Solar in arranging the return of faulty items to the factory or a third-party institution. Returned PV modules will not be accepted without prior written authorization from DAH Solar. If the client returns the product without prior written consent from DAH Solar, the risks (including but not limited to product damage, loss) and costs associated with such product(s) shall be borne solely by the client.

If the client fails to notify DAH Solar as described above and provide the relevant information for (1)-(7), or fails to cooperate with DAH Solar in the necessary product return, DAH Solar has the right to refuse to process the relevant claim and shall not bear any liability.

DAH Solar has the right to decide at its sole discretion whether to send a representative to investigate and verify the installation site of the claimed module product. The costs incurred thereby shall be borne by DAH Solar. If DAH Solar decides to send a representative to the product installation site for verification, the client shall provide active cooperation. If the client refuses DAH Solar's representative entry to the site for verification without reasonable cause, DAH Solar has the right to delay or refuse the warranty claim process at its sole discretion. If inspection by a third-party testing institution is required (must be agreed upon by both parties; if both parties cannot reach an agreement, the testing institution designated by DAH Solar shall prevail), the reasonable costs incurred by the third-party testing institution for appraisal shall be advanced by the client. If the third-party testing institution confirms and determines that the liability belongs to DAH Solar, then the reasonable, direct, and evidenced costs associated with the testing, upon agreement by DAH Solar, shall be borne by DAH Solar, including freight, transportation insurance costs, third-party laboratory testing fees, etc.

### · Warranty Performance

Upon analysis and determination by DAH Solar that the product fails to meet the requirements of the Limited Product Warranty or Limited Peak Power Warranty solely due to reasons attributable to DAH Solar; or upon confirmation by a third-party testing institution (must be agreed upon by both parties; if both parties cannot reach an agreement, the testing institution designated by DAH Solar shall prevail) that the product fails to meet the requirements of the Limited Product Warranty or Limited Peak Power Warranty solely due to reasons attributable to DAH Solar, DAH Solar will, within a reasonable period, at its sole discretion choose to take any one of the following remedial measures based on the different claim situations raised by the client:

#### - Limited Product Warranty Remedies:

- Repair: DAH Solar determines the repair plan and repairs the defective product free of charge;
- Replacement: DAH Solar provides free replacement product(s) to replace the defective product(s); (The actual output power of the replacement product(s) shall not be lower than the theoretical minimum remaining output power of the original product being replaced)
- Refund: Repay the remaining value of the defective product through a refund:  
Remaining Value = Current Market Price (price per watt) (reference: latest published price by PV Infolink) \* Nameplate Output Power \* (Remaining Limited Product Warranty Period / Limited Product Warranty Period)

#### - Limited Peak Power Warranty Remedies:

- Refund: Repay the value corresponding to the power difference between the actual output power and the warranted power of the defective product:  
Value Difference = Current Market Price (price per watt) (reference: latest published price by PV Infolink) \* (Theoretical Minimum Remaining Guaranteed Output Power - Actual Output Power)
- Provide additional product(s) to compensate for the power difference between the actual tested power of the defective product(s) and the warranted power:  
Number of Additional Products (units: pieces) = ((Theoretical Minimum Remaining Guaranteed Output Power - Actual Output Power) \* Quantity of Defective Products) / Nameplate Power of the Additional Product(s) Provided

## Severability

If any part, provision, or term of this "Limited Warranty for Photovoltaic Modules", or its application to a person or environment, is held to be invalid or unenforceable, such determination shall not affect the validity or enforceability of all other parts, provisions, terms, or applications of this "Limited Warranty for Photovoltaic Modules", and for that purpose, the other parts, provisions, terms, or applications of this "Limited Warranty for Photovoltaic Modules" shall be deemed severable.

## Disputes

Any disputes related to this Limited Warranty, including but not limited to disputes concerning the existence, validity, breach, or termination of this Limited Warranty, shall be resolved in accordance with the dispute resolution method agreed upon under the sales contract signed between DAH Solar and the buyer. DAH Solar reserves the right of final interpretation of this Limited Warranty.

## Transfer of Warranty

The warranty is transferable when the Product is still installed in the original installation position on the warranty register and has not been disassembled or transferred.

## Others

The repair or replacement of a module or the provision of additional modules does not constitute a renewal of the warranty period, nor shall the original term of this "Limited Warranty for Photovoltaic Modules" be extended.

Any replaced modules shall be the property of DAH Solar and shall be at its sole disposal. In the course of processing the claim, if DAH Solar discontinues the production of the product with the replaced module model, it has the right to supply another module model (different in size, color, shape, and/or power).

According to national laws, regulations, and relevant policies, DAH Solar may update the above product warranty terms and policies from time to time. Relevant updates shall be deemed part of this Limited Warranty. This Limited Warranty is the only valid document for DAH Solar to undertake warranty liability externally. Any oral promises, unilateral declarations, or other documents not recognized in writing by DAH Solar shall not have legal effect on DAH Solar. DAH Solar shall only undertake warranty liability within the scope specified in this Limited Warranty.

To obtain the latest version, please visit the DAH Solar official website: <https://en.dahsolar.com/>



**Manufacturer: DAH Solar Co., Ltd.**

Address: NO.1 Yaoyuan Road, Luyang District, Hefei City, Anhui, China

E-Mail: [Q.C.GCS@dahsolar.com](mailto:Q.C.GCS@dahsolar.com) Telephone: +86 551 65655842

Fax: +86 551 65389933 Website: [www.dahsolar.com\(CN\)](http://www.dahsolar.com(CN)) [en.dahsolar.com\(EN\)](http://en.dahsolar.com(EN))