

# Limited Warranty for Solar Modules

Effective July 1, 2024 GKM·TN-SW-P001-F003 A1



Thank you for making the right decision on purchasing high quality photovoltaic modules from Gokin Solar Co., Ltd. (hereinafter referred to as "Gokin").

Gokin Perc monofacial photovoltaic modules are covered by 12 years material and workmanship and 25 years performance warranty as described in detail below.

Gokin Perc bifacial and TOPCon photovoltaic modules are covered by our 12 years material and workmanship and 30 years performance warranty as described in detail below.

Gokin Perc monofacial photovoltaic modules covered under this warranty include:

- (1) GK-2-66HP-xxxM (xxx=650-670, In increments of every 5W);
- (2) GK-1-72HP-xxxM (xxx=540-560, In increments of every 5W);
- (3) GK-1-54HP-xxxM (xxx=405-420, In increments of every 5W).

Gokin Perc bifacial photovoltaic modules covered under this warranty include:

- (1) GK-2-66HPBD-xxxM (xxx=650-670, In increments of every 5W);
- (2) GK-1-72HPBD-xxxM (xxx=540-560, In increments of every 5W);
- (3) GK-1-54HPBD-xxxM (xxx=405-420, In increments of every 5W).

Gokin TOPCon monofacial photovoltaic modules covered under this warranty include:

(1) GK-1-72HT-xxxM (xxx=560-590, In increments of every 5W).

Gokin TOPCon bifacial photovoltaic modules covered under this warranty include:

- (1) GK-4-66HTBD-xxxM (xxx=590-620, In increments of every 5W);
- (2) GK-3-72HTBD-xxxM (xxx=590-620, In increments of every 5W);
- (3) GK-2-66HTBD-xxxM (xxx=670-700, In increments of every 5W);
- (4) GK-1-78HTBD-xxxM (xxx=610-650, In increments of every 5W);
- (5) GK-1-72HTBD-xxxM (xxx=560-600, In increments of every 5W);
- (6) GK-1-60HTBD-xxxM (xxx=465-500, In increments of every 5W);
- (7) GK-1-54HTBD-xxxM (xxx=420-450, In increments of every 5W);
- (8) GK-3-54HTBD-xxxM (xxx=440-470, In increments of every 5W);
- (9) GK-4-48HTBD-xxxM (xxx=425-450, In increments of every 5W).

"xxx" means the nominal power of module.

The warranty start date of the Solar Modules stipulated under this Limited Warranty for Solar Modules (hereinafter referred to as "Limited Warranty") is the date of delivery to the Customer. For the avoidance of doubt, the aforesaid Customer means the Buyer as agreed in the Solar Module sales contract.

1. Limited Warranty

## **1.1** Limited Product Warranty

Gokin warrants that for a period of 12 years since the Warranty Start Date that the Solar Modules (including the DC connectors and cables) will be free of defects in material or workmanship which affects the normal



installation or utilization of the modules, provided that the Solar Modules are installed, utilized and maintained according to the stipulations of the Installation Manual provided by the Supplier, which may be updated from time to time. The aforesaid defects do not include changes in appearance or normal wear and tear of the Solar Modules after the modules is installed.

Performance warranty for the power output is not included here but it shall be specifically elaborated in the article 1.2 " Limited Performance Warranty" section below.

# **1.2** Limited Performance Warranty

Gokin guarantees that PERC monofacial photovoltaic module products will maintain the following power output levels for 25 years, while PERC bifacial and TOPCON bifacial photovoltaic modules will maintain the following power output levels for 30 years:

As for Gokin Perc monofacial photovoltaic modules, during the first year of the Performance Warranty Period, the actual power output of the modules will reach at least 98% of the nominal power output; and from the second year, the actual power output will decline annually by no more than 0.55% for a period of 24 years; by the end of the 25th year, an actual output of at least 84.8% of the nominal power output is guaranteed. The specific calculation method can be found in the following formula:

Actual Power Output (Year=1)  $\geq$  Nominal Power \* (1 - 2%)

Actual Power Output(Year=N,  $2 \le N \le 25$ )  $\ge$  Nominal Power \*( 1 –(2% + 0.55% \*(N-1)))

As for Gokin Perc bifacial photovoltaic modules, during the first year of the Performance Warranty Period, the actual power output of the modules will reach at least 98% of the nominal power output; and from the second year, the actual power output will decline annually by no more than 0.45% for a period of 29 years; by the end of the 30th year, an actual output of at least 84.95% of the nominal power output is guaranteed. The specific calculation method can be found in the following formula:

Actual Power Output (Year=1)  $\geq$  Nominal Power \* (1 - 2%)

Actual Power Output(Year=N,  $2 \le N \le 30$ )  $\ge$  Nominal Power \*(1 –(2% + 0.45% \*(N-1)))

As for Gokin TOPCon monofacial and bifacial photovoltaic modules, during the first year of the Performance Warranty Period, the actual power output of the modules will reach at least 99% of the nominal power output; and from the second year, the actual power output will decline annually by no more than 0.4% for a period of 29 years; by the end of the 30th year, an actual output of at least 87.4% of the nominal power output is guaranteed. The specific calculation method can be found in the following formula:

Actual Power Output (Year=1)  $\geq$  Nominal Power \* (1 – 1%)

Actual Power Output(Year=N,  $2 \le N \le 30$ )  $\ge$  Nominal Power \*( 1 –(1% + 0.4% \*(N-1)))

The actual power output is to be measured under standard testing condition ("STC" or "Standard Test 2 / 7 2024/07/01 GKM-TN-SW-P001-F003 A1



Conditions") in an independent testing lab accepted by the Supplier or previously designated by the Supplier, and when measuring the actual power output, measurement equipment tolerance is to be taken into consideration, as per IEC60904.

Standard Test Conditions are: Air mass 1.5, wind speed 0m/s, irradiance 1000W/m<sup>2</sup>, cell temperature 25°C

## 2. Warranty Claim Procedure

If the customer has a reasonable claim covered by this limited warranty for solar photovoltaic modules, they should submit the warranty claim requirements and related information to Gokin or authorized distributors of Gokin in writing or email within the validity period of the product's warranty.

The customer shall provide necessary evidence documents for its claim. If the customer believes that the Solar Module does not meet the requirements of the "Limited Warranty", the customer should notify Gokin within 30 days after the claim is identified. The notice should include the following information: (a) the claimant; (b) a detailed description of the claim; (c) supporting materials, including photos or data; (d) serial number of affected module; (e) evidence for purchase of the affected module; (f) model of the affected module; (g) project location; (h) other supplementary information required by Gokin. Gokin will review and evaluate alleged claims after receipt of the claim and full information as stipulated herein. If Gokin at its sole discretion considers it necessary, Gokin can request the module be shipped back to Gokin's factory or 3rd-partyfor testing, in which case, Gokin will provide the customer with a Return Merchandise Authorization ("RMA"). In the event the Customer fails to notify Gokin and provide the relevant information of (a)-(h) as described above within the time required by Gokin or fail to coordinate Gokin arrange the defected modules transfer under necessary circumstances, Gokin is entitled to refuse to process the relevant claim demand without any liability until the Customer has provided the relevant information as required by Gokin.

In the absence of such RMA, any returned module will not be accepted by Gokin. In the event the Customer returns the Solar Modules without written agreement of Gokin, the risks (including but not limited to damage and loss of the Solar Modules) and expenses related to the Solar Modules shall be borne by the Customer. Subject to the approval of the Gokin's technical service department, the necessary and documented shipping costs related to the Limited Product Warranty or the Limited Performance Warranty will be compensated by Gokin to the customer.

Gokin is entitled to decide whether to send a representative to investigate the alleged claims on site and related cost and expenses shall be borne by Gokin. In the event that Gokin decides to send a representative to the product installation site for verification, the customer shall actively cooperate for such investigation. If the customer refuses Gokin to enter the site for investigation without a proper and appropriate reason, Gokin has the right to extend or refuse the claim process until necessary evidence is provided. In case a consensus regarding the cause of any module defect cannot be reached between Gokin and the customer, Gokin has rights to assign authoritative testing facilities, such as TÜV SUD, CQC etc., which should be



accepted by both parties to participate in the final settlement. Gokin will pay for the reasonable costs incurred by such test in advance. All costs shall be borne by the losing party finally, including shipping freight, transportation insurance, and laboratory testing costs etc., except for the lawsuit which should be judged by written judgment. Gokin reserves the right of final interpretation.

## 3. Remedies for Claims

In the event that the customer claims that the module(s) fails to meet the "Limited Warranty" as described above and Gokin confirms the cause for such defect lies on the product material or workmanship; or at the request of the client, a mutually-agreed third-party testing was done to reveal that the cause of such defect lies on the material or workmanship, then Gokin shall, at its sole discretion, either.

1. Repair the defective solar modules. Gokin shall prepare the repair plan and carry out the repair solution for the defected modules; or

2. Replace the defective modules or provide additional module(s) to make up for the output gap

between the guaranteed output and the actual power output of the defective module(s) ; or

3. Refund the residual value of the defective modules or refund the equivalent value to the output gap between the guaranteed power output and the actual power output of the defective module(s).

a. Residual value = current market price (price-per-watt) \* nominal power \* left-over service life/ Limited Performance Warranty period

b. Value Equivalent of Output Gap = current market price (price-per-watt) \* (guaranteed power output – actual power output) \* left-over service life / Limited Performance Warranty period

Note that the "market price" here refers to the selling price of the product at the time of claim.

## SPECIAL NOTE:

Unless otherwise agreed by the Parties in written, the repaired module(s) or replacement module(s) will be delivered by Gokin in accordance with the same Incoterms and destination as the relevant module supply contract. The insurance, freight, customs clearance fees and other reasonable expenses shall be borne in accordance with the Incoterms in the original module supply contract. In the case that the Customer pays for such costs in advance, and expects to contact Gokin for compensation for such aforesaid costs, the Customer shall provide the invoices to evidence that such costs are incurred from related service providers. Costs incurred due to dismantling, repacking, installation or reinstallation the module(s) and other related expenses shall be borne by the Customer.

Any repair or replacement of the affected module(s) shall not renew the applicable warranty period. The warranty period for replaced or repaired module(s) is the remainder of the warranty for the affected modules. Gokin is entitled to deliver similar module(s) at its sole discretion in replacement of the affected module(s) if the affected module(s) is no longer available. The nominal power of the module(s) used to

replace the concerned module(s) shall at least equal or over the power wattage of the affected module(s).

Unless instructed by Gokin or required by law, the Customer shall dispose of out-of-use module (s) in accordance with applicable regulations on electronic waste treatment and disposal at its own cost. If Gokin decides or is required by law to retrieve these defective modules, the ownership of the relevant module(s) belong to Gokin.

Unless with written authorization from the Supplier, any replaced module(s) shall not be resold, reworked or reused in any way.

Product limited warranty will be terminated after the residual value is refunded. If the output gap keeps growing after the value equivalent had been compensated, the Customer could apply claim based on the growing value equivalent as well, which means it should exclude the value equivalent of last claim.

The buyer is obliged to cooperate with Gokin to sign a "Settlement Agreement" so that the remedy plan for any alleged claim can be implemented. The Parties agree that Gokin is entitled to use this as a precondition for fulfilling the obligations under this "Limited Warranty".

# 4. Liability Exemptions

4.1 In any case, all warranty claims must be received within the warranty period in order for this warranty claim to be valid.

4.2 The "Limited Product Warranty" and "Limited Performance Warranty" does not apply to any one of the following situations:

- When the nameplate and serial number of the module(s) are tampered with, removed or unrecognizable without the written authorization of Gokin; or
- Module(s) have been installed and powered on the permanent structure, and then removed and reinstalled on different structures; or
- Module(s) have been repaired or modified by personnel who have not received recognition from Gokin; or
- Module(s) have been installed, used and maintained in a manner that fails to strictly comply with the relevant provisions of Gokin's installation manual, module technical specification and maintenance manual; or
- Module(s) which have been subject to misuse, abuse, negligence, vandalism or accident; or
- Module(s) which have been subject to power supply failure, power surge, lightning, flood, fire, accidental damage or other events beyond the control of the Supplier directly or indirectly; or
- Module(s) which have been installed on mobile equipment (except for photovoltaic tracking systems clearly agreed by Gokin) such as vehicles, ships, etc., or offshore facilities (except for pre-authorized floating systems or fishery-solar hybrid project); or
- Module(s) which have been subject to system voltage over the rated maximum system voltage or surge; or



- Module(s) which have been installed on unqualified buildings; or
- Module(s) which have been installed near extreme heat or in extreme or volatile environmental conditions, causing the module(s) to corrode, oxidize, or to suffer from chemical materials in the environment; or
- Module(s) which have suffered from chemical materials in the environment; or
- Gokin has not received the payment for the module(s), whether it is full or partial payment; or
- Module(s) which have been used in a way that infringes on the intellectual property rights of Gokin or any other third party (including but not limited to patent rights, trademark rights, etc.);

# 5. Limitation of Liability

The "Limited Warranty" referred to herein expressly supersedes and excludes all other express or implied warranties, including but not limited to merchantability or fitness for a particular purpose, usage or application, or other obligations and responsibilities assumed by Gokin, unless Gokin expressly recognizes other obligations and responsibilities in a dully signed written document.

The customer understands and agrees that Gokin shall not be liable for personal injury or property damage, and shall not be liable for other losses or injuries caused by or related to the module(s) (including but not limited to any module defect, or any defect arising from improper use and installation of the module(s)). Gokin excludes all liabilities for any collateral, consequential or special damages. Losses caused by module defect, including but not limited to, loss of profit, loss of power, loss of business opportunity, loss of goodwill, increase of the operating cost or loss of income are clearly excluded here. If Gokin is liable for compensation to the customer, the total amount of compensation shall not exceed the invoice price of the defective module(s) paid by the customer.

This Limited Warranty gives specific legal rights, and the Customer may have other rights which vary from state to state. This Limited Warranty does not affect any additional rights the Customers have under laws in your jurisdiction governing the sale of consumer goods. 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 the Customer.

## 6. Severability

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

7. Applicable Law and Dispute Resolution

Any dispute relating to this "Limited Warranty", including but not limited to, disputes relating to the survival, validity, breach or termination of the "Limited Warranty", shall be resolved in accordance with the governing law and jurisdiction written in the Solar Module supply contract. GOkin reserves the right of final



interpretation.

# 8. Warranty Transfer

The Customer can transfer the rights and obligations under this "Limited Warranty" to the subsequent project owner by informing Gokin in writing of this transfer of rights, provided that:

1. The module(s) remain at the initial installation site without being tempered with; and

2. The purchase price of the module(s) or other payable amounts (such as liquidated damages) are fully paid to the Supplier; and

3. This transfer of rights covers all provisions of this "Limited Warranty"; and

4. The transferee agrees to be bound by all terms of this "Limited Warranty".

If Gokin require, the Customer shall, within 15 days upon receipt of the notice from the Supplier, provide reasonable evidence to prove the inheritance of ownership. Otherwise, Gokin shall have the right to refuse to process the relevant claim and shall not be liable for it.

The rights of this "Limited Warranty" shall only be transferred if above mentioned requirements are fully met, otherwise such transfer shall not be binding upon on Gokin, and Gokin has the right to refuse to process the relevant demand for claims without any liability.

# 9. Force Majeure

Force Majeure refers to unforeseeable, unavoidable and insurmountable objective conditions in practice, including but not limited to war, riot, strike, epidemic, quarantine, traffic control and other social events; and earthquake, fire, flood, blizzard, hurricane, lightning, natural disaster and other natural disaster; or due to lack of adequate or adequate labor force, shortage of raw materials or inability to produce capacity, technology or output, or delay not caused by either Party due to delay of construction period due to approval delay of non-municipal supporting facilities; or the delay caused by national laws, regulations, administrative rules or orders and any unforeseeable events beyond the control of Gokin.

Upon occurrence of Force Majeure or its continuing, in sales or defective product warranty claim, Gokin cannot fulfill or delay in performance of its obligations under this "Limited Warranty", Gokin shall be free of any liability to the loss or damages incurred therefrom, but Gokin shall promptly notify the Customer regard to the Force Majeure, and shall negotiate with the Customer in time to take necessary measurements to minimize the impact of the Force Majeure.

# 10. Validity

This limited warranty for solar photovoltaic modules applies to all modules listed as Class "A" in the contract signed with Gokin.