



Enterprise Standard of Tongwei Solar

Twenty Five-Year Limited Product Warranty for Shingled Module

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Preface

The *Twenty Five-Year Limited Product Warranty for Shingled Module* is developed in accordance with laws and regulations, industry standards and the actual management of the company. This limited warranty shall Tongwei solar co., LTD. for the purpose of for personal use and buy installation below rules of crystalline silicon series photovoltaic modules of the end user, promises to provide limited warranty as described below. This limited warranty is applicable to Grade A modules, not to degraded or scrapped modules.

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Document production/revision history			
Version	Revised content	Reviser	Effective date
A0	1. Create the <i>twenty Five-Year Limited Product Warranty for Shingled Module</i> for Tongwei solar; 2. This document replaces Q/TW 2101.6 Crystalline silicon Shingled Module Limited Warranty V2.3.	Jinzhi Hu	2023.4.xx

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Twenty Five-Year Limited Product Warranty for Shingled Module

1 Scope

This limited warranty shall Tongwei solar co., LTD. (hereinafter referred to as the "Tongwei") for the purpose of for personal use and buy installation below rules of crystalline silicon series photovoltaic modules (hereinafter referred to as the "modules") of the enduser (hereinafter referred to as the "buyer"), promises to provide limited warranty as described below (hereinafter referred to as the "limited warranty").

This limited warranty is applicable to Grade A modules, not to degraded or scrapped modules.

2 Warranted products

2.1 This limited warranty only applies to the following series of shingled photovoltaic modules:

Shingled single glass photovoltaic modules: 166 series, 210 series;

Shingled double glass photovoltaic modules: 166 series, 210 series.

The above limited warranty product series are limited to certified series.

Applicable to all customer feedback and complaint issues of Tongwei Solar.

3 Commencement date of warranty

It will be effective from the day of installation or the 90th day (natural day) after the delivery of the Tongwei modules, whichever occurs earlier.

4 15 years limited product warranty

4.1 Tongwei warrants that the module will not malfunction or fail to operate due to design, material, process or manufacturing defects within 15 years from the valid date.

4.2 Defects in module appearance (including but not necessarily limited to bruise, scratch, stain, mechanical wear, rust, mold, etc.) or other changes which occur after the delivery from Tongwei to the Buyer are not guaranteed in this limited warranty unless defects or changes mentioned above are against the provisions of Article 6, "Limited Warranty on Power Output".

5 25 years limited product warranty

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5.1 Tongwei offers 25 years limited product warranty for roofing markets in Australia and Europe. The specified warranty module types are as follows:

THxxxPMB5-60SB, THxxxPMB5-60SBS, THxxxPMB5-60SBF, THxxxPMB7-46SC, THxxxPMB7-46SCS, THxxxPMB7-46SCF, THxxxPMB7-44SC, THxxxPMB7-44SCS, THxxxPMB7-44SCF, THxxxPMB6-58SDC.

Tongwei warrants that the module will be free from defects in design, materials and workmanship that impair the performance functioning of the products within the 25 years warranty period. The defects shall not include normal wear and tear, corrosion, musty and color difference.

5.2 To meet the 25 years limited product warranty, the application condition should be followed:

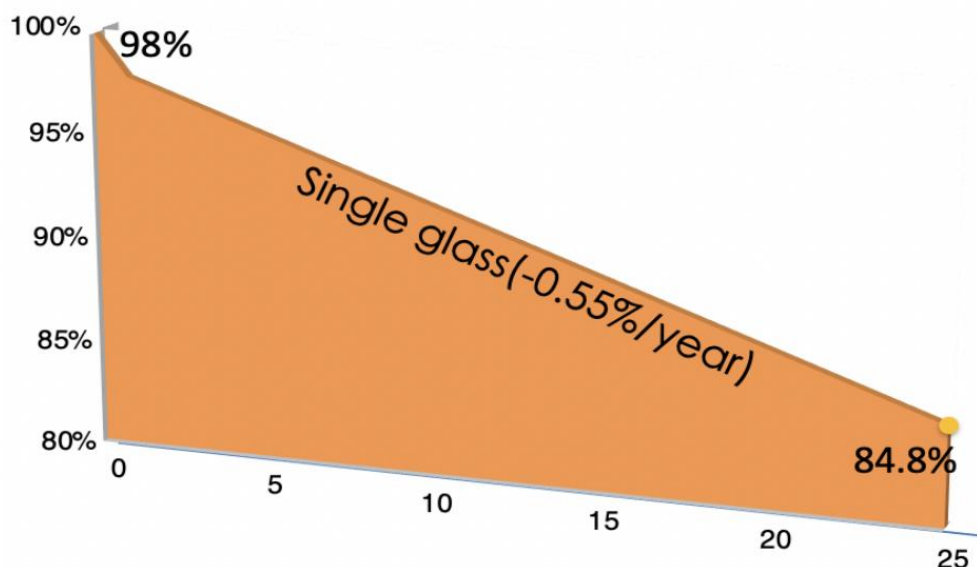
- a) Application site: residential rooftop, installed distance should be more than 500m away from the sea;
- b) Environmental condition: monthly average temperature $\leq 45^{\circ}\text{C}$, monthly average humidity $\leq 85\%RH$, do not installed on the sites which have a extremely environment, such as extremely cold, heavy snow, strong wind or the heavy slat-mist etc.
- c) Installation: followed Tongwei standard installation manual.

5.3 If the application conditions do not conform to part 5.2, this additional 10 years warranty will be void.

6 Limited warranty on power output

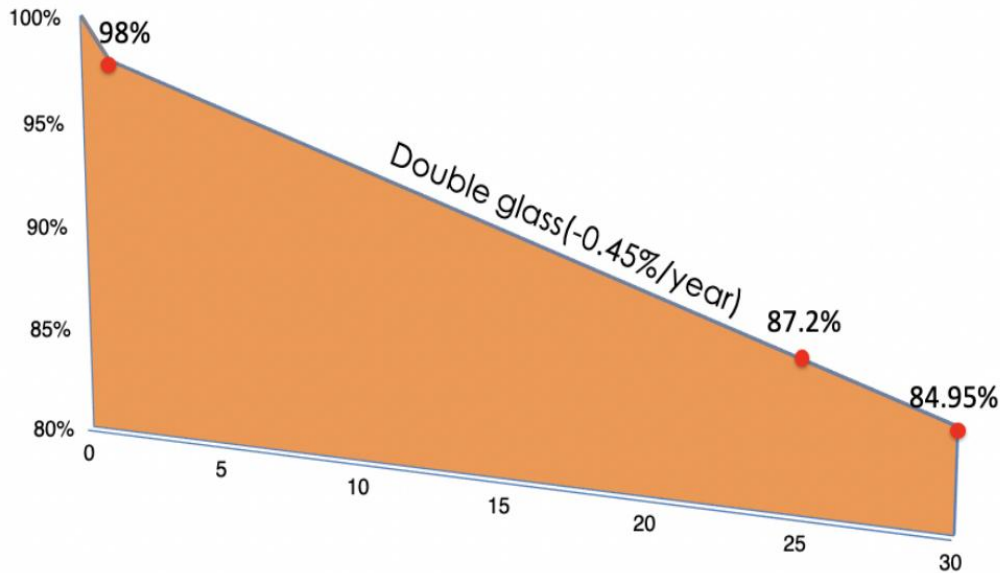
6.1 Tongwei also undertakes that the loss of power output, conforming to the comparison between the minimum tolerance which is specified in the label of modules and the practical peak value which is figured out under standard Test Conditions (STC).

a) **As for single glass modules:** 25 years limited warranty on power output, the first year of power loss will be within 2%, and it will maintain loss within 0.55% annually from the 2nd to the 25th year from the effective date of warranty. The last year of power output is not less than 84.8%.



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b) As for double glass modules: 30 years limited warranty on power output, the first year of power loss will be within 2%, and it will maintain loss within 0.45% annually from the 2nd to the 30th year from the effective date of warranty. The last year of power output is not less than 84.95%.



6.2 The peak power is the maximum power of modules measured under standard test conditions. Standard test conditions are: spectrum AM1.5, light intensity 1000W/m², temperature 25 ± 2 °C. Measurements According to IEC 61215, the tests are measured at the junction box terminals. The calibration and test standards for the Tongwei modules are valid on the date of manufacture of the module. The calibration standards are in accordance with the standards approved by the international organization.

7 Repairs, replacements or refunds

7.1 If a module has a severe appearance defect or a power loss because of itself through analysis exceeding the guaranteed value within limited product warranty or limited power output warranty, or in the case of the buyer's request by the domestic or international well-known third-party testing organization (the buyer and Tongwei confirmed the choice of the common) identified as Tongwei module causes, Tongwei will choose any of the following relief measures:

a) Tongwei has the right to choose the net value of the defective modules or the current market module price refunded to the buyer, the so-called defective modules of the net value of the modules purchased at the time on the basis of the first deduction of 16% depreciation, subsequent annual deductions 3.5% depreciation, depreciation is calculated from the date of the warranty, Single glass modules up to 25 years, Double glass modules up to 30 years,;

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b) Free repair or replacement of defective modules, and to provide the initial sale of the delivery point of free delivery service, the modules and parts to be replaced are owned by Tongwei.

7.2 The above remedies are the sole and exclusive remedies provided by the Tongwei limited warranty and shall not be liable for any special, indirect, consequential, incidental or consequential damages (including loss of production, loss of profits, loss of goodwill, loss of business reputation or delay losses), the provisions of this exclusion apply irrespective of whether the claim for loss is based on a contract, assurances, negligence or strict liability.

7.3 If Tongwei chooses to take remedial measures for free repair or replacement of defective modules, Tongwei undertakes insurance, transportation (other than air transport), customs clearance and other related expenses arising from the return of defective modules to Tongwei and transportation of repaired or replaced modules to the buyer. The buyer may refund the defective modules to Tongwei after the written consent of Tongwei. If the buyer prepaid the above-mentioned expenses, the buyer shall provide the invoice to Tongwei for the related expenses, and Tongwei shall pay the cost to the buyer; Tongwei does not accept any returned defective modules without the written consent of Tongwei. If, at the time of the claim, Tongwei has ceased to produce modules of the same type as the defective module, Tongwei may provide other types of modules that meet the requirements of the purchaser module. All costs incurred during the removal or installation of the modules are at the buyer's option.

7.4 Tongwei repair or replacement defective modules, limited product warranty and limited power output warranty is not extended or renewed, the warranty period for repair or replacement modules is the warranty period remaining for the buyer to purchase the module.

7.5 The buyer is entitled to claim under the terms of the warranty, if a problem with a number of claims, Tong Wei in accordance with the provisions of a compensation, that is resolved as a result of this problem arising from all applicable claims.

8 Liability exemption and limitation

Limited Warranty above shall not be applied to these products under any circumstances as follows:

- a) No payment received by Tongwei;
- b) Only Grade A modules (not including Grade S1, Grade S2 and the Scrap) shall be guaranteed.
- c) Failure to comply with all requirements of the Tongwei Installation Manual;
- d) The type, nameplate, or bar code of the module is altered, erased or unable to be recognized (except results caused by any act or omission of Tongwei);
- e) The installation location or operating conditions of the modules are not within the scope specified in the

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Tongwei Installation Manual and are not approved in writing by Tongwei. Such as the installation on vehicles, ships and other mobile platforms, or in the ocean, desert and other environments;

f) The building where the module is placed is defective;

g) The module is subject to any of the following conditions: intentional destruction, unauthorized modification, connection and opening, the repair with unauthorized spare parts, accidents, chemical effects, etc. and other events which beyond the reasonable control of Tongwei;

h) Pressure exceeds the maximum system voltage or surge;

i) The usage of modules is in a manner that infringes Tongwei or intellectual property of any third-party rights (such as patents for inventions, trademarks), imports in parallel;

j) The service of modules is considered that it's provided by unqualified technicians according to the relevant laws and regulations of installation.

9 Claims procedure, notice period, warranty performance

9.1 When any claim on Limited Warranty shall be founded, please notice Tongwei or its authorized distributor(s) in writing with claims, description of defective modules, bar code and nameplate picture, a copy of the commercial invoice and the module delivery date. Tongwei customer service center contact information:

Tongwei Solar (HEFEI) CO., LTD.

Add: NO.888 Changning Road, High-tech District, Hefei, Anhui, P.R.China

Z.C.: 230088

Web: www.tw-solar.com

9.2 Any claim for the Limited Warranty must be made within 30 days (natural day) from the date on which the breach is found.

9.3 In case of any dispute in terms of warranty-claims, a first-class domestic or international testing institute shall be entrusted by both parties upon mutual consents in order to provide third party verification and comments which are final, decisive, binding and compulsory in accordance with procedure mentioned in Limited Warranty. All fees and expenses shall be borne by the party that demanded such verification procedure, unless otherwise agreed.

9.4 If the result of the ruling is a defect in the Tongwei module, it is covered by this limited warranty, Tongwei shall be compensated in accordance with article 7 of the remedies; If the result of the ruling is a defect of the Tongwei module, which does not fall within the scope of this limited warranty, Tongwei does not bear any compensation, including but not limited to insurance, transportation, customs clearance and any other charges incurred for the return of defective modules, and no obligation to repair, replace or refund defective modules.

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9.5 When warranty period found that is not due Tongwei module's defects or module beyond the warranty period need for repair and replacement, the buyer may contact the Customer Service Center, advisory the cost of modules associated repair services.

10 Transfer of Rights

This Limited Warranty is applied to the original end user and the product remains to be installed at the original site, and on the other hand the warranty shall be adapted to subsequent owners when the owner holds a legal certification of inheritance or transfer.

11 Severability

If a section, provision or clause of this Warranty, or the application thereof to any person or circumstance, is held invalid, void or unenforceable, such shall not affect and thus shall leave all other sections, provisions, clauses or applications under this Warranty severable, and therefore validly binding.

12 Force majeure

For any unforeseen events due to fire, flood, blizzard, hurricane, lightning, public policy changes, terrorism, war, riots, strikes, lack of appropriate or sufficient labor, materials or production capacity, technical or physical events, and Tongwei's uncontrollability Force majeure, such as incidents, caused Tongwei to fail to perform or delay the performance of its obligations under this limited warranty. Tongwei shall not be liable to the buyer or any third party in any way.