

Limited Warranty for Bifacial Full Black Solar Panels

Autarco Group BV (hereafter “Autarco”) guarantees that its solar panels are designed and manufactured for a long life span and provides the following limited warranties:

The following products are covered by this Limited Warranty;

- Monocrystalline solar panels with halfcut cells and Multi-busbar technology delivered after 1st of April, 2024.
- This includes, but is not limited to the following series: TBJxxxB, TBT and TBTxxxB

1. Limited Product Warranty – Repair, Replacement or Refund Remedy

- 1.1. Subject to the Exclusions and Limitations in clause 3 herein, Autarco warrants its Crystalline PV modules (hereafter referred to as “modules”), including factory-assembled glass, cells, encapsulation material, frame, electric components, Junction box, connector and cable, if any, to be free from defects in materials and workmanship under normal application, operating conditions, use, installation, and maintenance within a period of 25 (twenty five) years of the fulfillment from Autarco (hereafter referred to as the “warranty start date”).
- 1.2. If a module is found defective in material or workmanship, Autarco will, at its sole discretion, repair or replace the module, or refund the purchase price of such defective module as paid by the customer within the above specified period according to the type of defect. For clarification purpose: “material or workmanship defects” are defined per IEC 61215-1 Clause 8, IEC 61215-2 Clause 4.1 and IEC 61730-2 Clause 10.2 for visual defects, and per IEC 61215 entire Clause 4 for electrical and mechanical defects. Like all materials exposed to different environmental conditions, components of modules are subject to natural degradation (aging) and their appearance may change within the warranty period.
- 1.3. The options to repair or replace defective modules, or refund the price of remaining value are the only and exclusive remedies guaranteed under this Limited Warranty for Crystalline PV Modules and shall not extend beyond the period of limited product warranty set forth here. Remedies will be performed directly to the end customer only. This Limited Warranty for Crystalline PV Modules does not warrant a specific power output, which shall be exclusively covered under Clause 2 hereinafter (“Limited Peak Power Warranty – Limited Remedy”).

2. Limited Peak Power Warranty – Limited Remedy

Subject to the Exclusions and Limitations in clause 3 herein, Autarco warrants that:

- 2.1. Regular product exhibits a power output no less than 98% of the nominal peak power specified on the respective datasheet or module label at Standard Testing Conditions (STC, defined as: (a) light spectrum of AM 1.5, (b) an irradiation of 1000 W/m², (c) a cell temperature of 25°C at right angle irradiation.) within the first year from the date of delivery to the end customers but not later than 6 months after delivery to the first purchaser from Autarco, (hereafter referred to as the “warranty start date”), and power output declining by no more than 0.55% per year of the nominal peak power as specified on the respective datasheet at STC from the 2nd year to 25th year. Consequently, at the end of the twenty-fifth year from the “warranty start date”, the modules will still produce a power output of at least 84.8% based on the stated nominal output at STC.

- 2.2. Double glass product exhibits a power output no less than 99% of the nominal peak power specified on the respective datasheet or module label at STC within the first year from the “warranty start date”, and front power output declining by no more than 0.4% per year of the nominal peak power as specified on the respective datasheet at STC from the 2nd year to 30th year. Consequently, at the end of the thirtieth year from the “warranty start date”, the modules will still produce a power output of at least 87.4% based on the stated nominal output at STC.

Monocrystalline Solar Panel Warranted Power Output

Year	1	2	3	4	5	6	7	8	9	10
MMPO	99	98.6	98.2	97.8	97.4	97	96.6	96.2	95.8	95.4
Year	11	12	13	14	15	16	17	18	19	20
MMPO	95	94.6	94.2	93.8	93.4	93	92.6	92.2	91.8	91.4
Year	21	22	23	24	25	26	27	28	29	30
MMPO	91	90.6	90.2	89.8	89.4	89	88.6	88.2	87.8	87.4

- 2.3. For the above such loss in power measured by Autarco facility or the 3rd party testing institute recognized by both sides, it is determined by Autarco (at its sole and absolute discretion) to be due to defects in material or workmanship, is eligible for claim under this Limited Warranty for Crystalline PV Modules. Autarco will remedy such loss in power by either providing additional modules to the customer to make up for such loss in power, or by repairing or replacing the defective modules at the discretion of Autarco.

- 2.4. The remedies set forth in this Clause 2 shall be the sole and exclusive remedies provided under the “Limited Peak Power Warranty – Limited Remedy”. Caution: Any power measurement mentioned herein shall be carried out in accordance with IEC 60904 and subjected to - a power measurement uncertainty of ±3%.

3. Warranty Exclusions and Limitations

- 3.1. In any event, all warranty claims must be filed in accordance with the instructions outlined in Clause 4 of this Limited Warranty for Crystalline PV Modules, within the applicable warranty period.
- 3.2. The Limited Warranty for Crystalline PV Modules does not apply to any modules which have been subjected to:
 - a. Misuse, abuse, neglect or accident;
 - b. Alteration, disassemble, reinstallation, and/or improper installation or application;
 - c. Non-observance of Autarco's installation and maintenance instructions;
 - d. Repair or modifications by persons that have not been previously authorized or approved by Autarco;
 - e. Failures caused by surrounding equipment of the module;
 - f. Use under unusual conditions or environments (such as high temperature, high humidity and so on) that deviate from the product specifications and installation manual;
 - g. Use for purposes unrelated to the generation of solar power;
 - h. Connection with any other manufacturer's PV modules, or Autarco modules that are a different model or have different power output specifications without Autarco's approval in advance.
 - i. Defects occurring during transportation or storage in violation of usual transportation or storage rules or such specified by Autarco, after the modules have been delivered to the customer;
 - j. Naturally occurring scratches, stains, mechanical wear, rust, degradation, discoloring, or other alteration occurring after the shipment from Autarco that have no effect on the power generation performance or mechanical strength of the module, but not limited to the below visual alteration during the related warranty period:
 - Non-significant discoloration of laminate.
 - Non-significant loss of glass transparency.
 - Non-significant increase of surface roughness.
 - Non-significant frame damage due to environmental stress.
 - Non-significant damage to the junction box due to environmental stress or indication of corrosion.
 - Non-significant damage of connectors and cables due to environmental stress or indication of corrosion.
 - Non-significant damage of frame fixation due to environmental stress.
 - k. Power failure surges, flood, fire, accidental breakage or other events caused by force of nature, force majeure, or other unforeseeable circumstances outside the range of influence of Autarco.
- 3.3. The Limited Warranty for Crystalline PV Modules does not cover any transportation charges, customs clearance or any other costs for return of the modules, for reshipment of any repaired or replaced modules, or costs associated with

installation, removal or reinstallation of the modules, or profits loss of the system generation.

- 3.4. Warranty claims will not be honored if the type or serial number of the modules have been altered, removed or made illegible.
- 3.5. Autarco 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 modules, including, without limitation, any defects in the modules, or from use or installation. With respect to this Solar Panel Limited Warranty; under no circumstances shall Autarco be liable for incidental, consequential, loss of use, loss of profits, loss of revenues, loss of production or special damages. Autarco's aggregate liability, if any, in damages or otherwise, shall not exceed the invoice value against the affected modules as paid for by the customer.

4. Claims

- 4.1. If you have purchased a Product from a retailer or distributors you are kindly required to contact them and follow their instructions on claim processes.
- 4.2. The Dealer or Distributor should submit warranty claims according to the Return Material Authorization ("RMA") process. This starts by either;
 - Raising a case online at <https://helios.autarco.com/>
 - Email to support@autarco.com
 - Submitting a claim in writing to Autarco Group BV, Torenallee 20, 5617 BC, Eindhoven, The Netherlands

Such notice should enclose;

- Evidence of the date of delivery of the applicable product and the basis for the claim. Warranty claims may only be made by the original buyer or a person to whom the title to the Product has been transferred, provided that the Product remains in their original location and configuration.
 - A field report in the format provided by Autarco which may change from time to time, but will include detailed description of claim and Product serial numbers.
- 4.3. Upon receipt of such a written claim, Autarco may seek further verification of the claim.
 - 4.4. Upon written RMA authorization by Autarco and according to return packaging and shipping instructions from Autarco, the allegedly-defective Product may be returned to Autarco.
 - 4.5. Autarco will not accept the return of any product unless prior written authorization has been given by Autarco.
 - 4.6. Autarco will not accept the return of any product unless the packaging and shipping instructions provided by Autarco were adhered to.
 - 4.7. Autarco will provide feedback on the claim and suggested solution as soon as possible and within maximum thirty (30) days after the accepted receipt of returned

Product.

5. Transferability

- 5.1. This warranty is extended to the original end-user, and is transferable to any subsequent owner of the location or subsequent holder of the product when product(s) remain at their original installed location upon satisfactory proof of succession or assignment.

6. Other terms

- 6.1. Autarco reserves the right to deliver another type of Product(s) with difference in size, form, color and / or output if the type of the reclaimed Product(s) is no longer produced at the time of complaint.
- 6.2. The repair, replacement or additional delivery of the Product(s) neither renews nor extends the period of the warranties.
- 6.3. Any replaced Product shall become the property of Autarco.

7. Severability

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

8. Disputes

- 8.1. No action, regardless of form, arising out of or in any way connected with this Limited Warranty for Crystalline PV Modules, may be brought against Autarco more than six (6) months after the cause of action has occurred.
- 8.2. Autarco may provide these warranty conditions in several languages for the convenience of customers. In the event of deviations, the English version shall prevail.
- 8.3. In the case of a dispute in a warranty claim, a first-class international institute designated by Autarco such as Fraunhofer ISE in Freiburg, Germany or TÜV Rheinland in Cologne/China, TÜV SUD in China, Intertek, CSA and other test laboratories (CBTL) accredited by IECCE shall be involved to judge the claim. All fees and expenses shall be borne by the losing party, unless otherwise awarded.
- 8.4. The final right of interpretation shall be borne by Autarco.

9. Force majeure

- 9.1. Autarco shall not be in any way be responsible or liable to the end user Customer or any third-party arising out of any non-performance or delay in performance of any terms and conditions of sale, including this Limited Warranty, due to fire, flood, blizzard, hurricane, thunder, acts of God, changes of public policies, terrorism, war, riots, strikes, unavailability of suitable and sufficient labor or materials and other events which are out of control of Autarco.

10. Validity

- 10.1. This version of the “Limited Warranties” holds its validity until replaced by an updated version.