



# N-Type ABC Module Warranty

## Distributed Common Modules



## 1. Whereas

To standardize the provision of warranties by Zhejiang AIKO Solar Energy Technology Co., Ltd. (hereinafter referred to as "Aiko Energy") and its affiliated companies under the same control to the buyer (hereinafter referred to as "Customer") purchasing photovoltaic modules under a purchase agreement, the following specifications are hereby formulated. Applicable products are as follows:

<b>The <i>Limited Warranty</i> applies to the following products</b>	
<b>Encapsulation structures</b>	<b>Model of modules</b>
Mono-glass Modules	AIKO-A-MAH54Mw
Dual-glass Modules	AIKO-A-MAH54Dw
Mono-glass Modules	AIKO-A-MAH60Mw
Mono-glass Modules	AIKO-A-MAH72Mw
Dual-glass Modules	AIKO-A-MAH72Dw
Dual-glass Modules	AIKO-A-MAH78Dw
Mono-glass Modules	AIKO-G-MCH72Mw
Mono-glass Modules	AIKO-A-MCE54Mw
Dual-glass Modules	AIKO-A-MCE54Dw
Mono-glass Modules	AIKO-A-MCE60Mw
Dual-glass Modules	AIKO-A-MAE72Dw
Mono-glass Modules	AIKO-A-MAE72Mw
Mono-glass Modules	AIKO-A-MDE72Mw
Dual-glass Modules	AIKO-A-MAE78Dw
Mono-glass Modules	AIKO-A-MAH72Mb

## **2. Limited Warranty**

The warranty commencement date specified in the warranty agreement shall be either within 30 days after the product is delivered to the customer (based on the specific delivery conditions determined by the purchase agreement signed by both parties, as interpreted according to Incoterms 2020), or within 90 days after the product is shipped from the factory, whichever comes first.

### **2.1 Fifteen-year Limited Warranty for the Products**

2.1.1 Aiko Energy guarantees that the supplied modules (including DC connectors and cable wires provided upon shipped) will function without significant impact on the basic power generation functionality of the product due to material or manufacturing defects, provided that they are installed, used, and maintained in accordance with the installation manual. This warranty is valid for a period of 15 years from the warranty commencement date. The aforementioned defects do not include changes in appearance or normal wear and tear of the installed modules.

2.1.2 This Limited Warranty for the products covers glass breakage not caused by external reasons (such as breakage caused by the glass itself or the modules).

2.1.3 This Limited Warranty for the products does not apply to the power output of the modules. Please refer to Article 2.2, Specialized Provisions, for the details of the power output warranty of the modules.

### **2.2 Thirty-year Limited Power Warranty**

2.2.1 The actual output power of the products can only be measured under the Standard Test Conditions (STC). The actual output power shall be measured by the third-party measurement institution approved by Aiko Energy or designated by the Customer and Aiko Energy through mutual negotiation in advance. The test simulator shall meet the 3A standards of IEC60904-9 2020. Meanwhile, the influence of the uncertainties of the relevant measurement and test systems shall be considered in all the actual output power measurements under STC, which is generally  $\pm 3\%$ . In order to test the power performance of modules that are close to actual lighting conditions, pre-treatment of lighting and temperature is required before module testing, otherwise it may lead to increased testing uncertainty.

The Standard Test Conditions include the following: Atmosphere mass (AM) 1.5, wind speed=0m/s, irradiation 1000W/m<sup>2</sup>, cell temperature 25°C.

#### **2.2.2 Thirty-year Limited Power Warranty**

Aiko Energy provides a full power output warranty of up to 30 years for modules from the warranty commencement date. The details are as follows:



Products with modules				
Type of module	First-year power decay rate (Corresponding to nameplate power)	Power decay rate/year (The 2 <sup>nd</sup> to the 30 <sup>th</sup> year)	Output power retention rate (The 25 <sup>th</sup> year)	Output power retention rate (The 30 <sup>th</sup> year)
The product model referred to in Clause "1" of this warranty	1%	0.35%	90.6%	88.85%

Notes:

- Actual output power (the 1st year)  $\geq$  Nameplate power \* (1- the first year power decay rate)
- Actual output power (the Nth year,  $2 \leq N \leq 30$ )  $\geq$  Nameplate power \* (1- (the first year power decay rate + power decay rate/year \* (N-1)))
- To avoid doubt, this Limited Warranty for power only applies to the frontal power of modules.

## 2.3 Extended Warranty Service

2.3.1 In order to maximize the application value of Aiko Energy's products for customers, Aiko Energy has provided customers with 15 years of Class I standard warranty for ABC double-glass modules plus two additional paid extended warranty services (Class II and Class III) for choices. Extended warranty service refers to the service that the manufacturer can provide to extend the product warranty period when the warranty service period required by the customer exceeds the standard warranty period provided by the manufacturer, and the specific classes that can be provided are as follows:

Available Warranty Class of Aiko Energy's ABC Modules			
Warranty class	Class I	Class II	Class III
Warranty description	Standard warranty	"15+5" warranty	"15+10" warranty
Warranty period	15 years	20 years	25 years

Notes:

- "15+5" warranty means that an extended five-year warranty can be provided under the standard fifteen-year warranty;
- "15+10" warranty means that an extended 10-year warranty can be provided under the standard fifteen-year warranty;

2.3.2 Customers can choose Class II and Class III paid extended warranty services on demand, but Aiko Energy will decide whether to provide extended warranty services according to the customer's application areas and cases. No matter which extended warranty service the customer chooses, both the customer and Aiko Energy need to register and put on record when signing the sales contract, and sign a paid warranty agreement when signing the contract.

2.3.3 Available extended warranty services of Aiko Energy modules for different sales markets are as follows:

Main Sales Markets (Countries and Areas)		Class II	Class III
Asia	China	●	●
	Japan	●	●
	South Korea	×	×
Australia	Australia	●	●
Europe	German-speaking region (Germany, Austria, Switzerland)	●	●
	(ESP-PRT) (Spain/ Portugal)	●	●
	(ITA-GRC) (Italy/ Greece)	●	●
	Western Europe (Netherlands, Belgium, Luxembourg/ England, France)	●	●
	Northern Europe (Sweden/Norway/Finland/Iceland)	●	●
	Eastern Europe (Poland/Romania/Hungary)	●	●
Africa	Whole Africa	×	×
Other areas	the Middle East	×	×

- indicates Class II or Class III warranty service is available
- × indicates Class II or Class III warranty service is not available

#### 2.3.4 Other Precautions

2.3.4.1 The content of the extended warranty is within the scope of the basic limited warranty. If the conditions of the basic warranty are not met, the extended warranty service cannot be enjoyed.

2.3.4.2 The protection, operation and maintenance of modules need to be the same as the basic warranty in the extended warranty period. Customers cannot disassemble the modules without permission to change the installation site, damage or resell the modules. The customer's modification and re-disassembly of the power station can only be carried out after reporting to Aiko Energy for records.

2.3.4.3 If product quality problems occur in the extended warranty period, the treatment methods of modules include but are not limited to maintenance and replacement, and depreciation and power loss of the existing service life will be considered in modules replacement.

2.3.4.4 The extended warranty will not be available if the basic warranty service becomes invalid due to the faults or damages caused by improper use of the customer or the product itself.

### 3. Warranty Claims

3.1 In any case, the requests for warranty claims and relevant data of all warranty claims shall be submitted to Aiko Energy or Aiko Energy's authorized distributors in writing within the corresponding warranty period.

3.2 The Customer shall bear the burden of proof regarding the requests for claims. Suppose the Customer believes that the modules do not meet the requirements of the Limited Product Warranty or Limited Power Warranty. In that case, the Customer shall submit a written notice to Aiko Energy's unified public E-mail ([cs@aikosolar.com](mailto:cs@aikosolar.com)) within 30 days as of the date on which the Customer is aware of or should be aware of such situation. Such notice shall contain the following information: (a) The Claimant; (b) The detailed

descriptions; (c) Supporting materials, including photos or data; (d) Serial numbers of relevant modules; (e) Purchase vouchers; (f) Type of modules; (g) Location of the modules; (h) Other additional information required by Aiko Energy. If the Customer fails to provide the information mentioned above, Aiko Energy shall not be able to settle the relevant claims.

3.3 After receiving the Customer's requests for claims and the complete information, Aiko Energy shall arrange a representative, as the case may be, to investigate the installation and using site of the modules involved in the claims, and the Customer shall actively cooperate. If the Customer refuses Aiko Energy's investigation at the using site without reasonable reasons, Aiko Energy shall suspend the warranty procedure.

## 4. Fulfillment of Warranty

In the case that Customer files that any product does not comply with the guarantees in the Limited Warranty if Aiko Energy determines that the defect is caused by material or process problems of Aiko Energy, or if Aiko Energy is defined as the Party responsible for the Customer's complaint according to the test made by a third-party test organization jointly selected by the Customer and Aiko Energy as required by the Customer, Aiko Energy shall have the right to choose to indemnify the Customer by taking any of the following remedy measures.

### 4.1 Maintenance

Aiko Energy shall determine the repair plan and repair the defective products, including but not limited to improving the junction box, repairing the scratches on the backboard, etc.;

### 4.2 Replacing the goods

Aiko Energy shall provide the products free of charge to replace the defective ones or provide additional products to make up the power difference between the tested power and the power warranty of the defective products;

### 4.3 Refunding

To repay the residual value of the defective products or the value difference corresponding to the power difference between the actual output power of the faulty products and the warranty power through refunding;

**Residual value** = Selling price agreed in the Contract (the price per Watt) \* Nameplate power \* Remaining years of warranty/30

**Value difference** = Selling price agreed in the Contract (the price per Watt) \*(Sum of the remaining theoretical warranty power – Actual output power)

### 4.4 Special Announcement:

4.4.1 The original warranty period shall still apply to the modules after repair or replacement, i.e., the warranty period shall not be recalculated or extended due to repair or replacement. If defective modules are no longer manufactured, cannot be supplied, or have

been removed from the market, Aiko Energy shall provide modules with similar power to replace the defective modules and ensure that the new modules' performance shall not be inferior to that of the defective ones.

4.4.2 If the products must be sent to a third party for quality inspection, the Customer shall pay the testing fee provisionally. If Aiko Energy is determined to be responsible for the defects, Aiko Energy shall bear the testing fee and the freight charge during the inspection. If Aiko Energy is not responsible for the defects as determined, then Aiko Energy shall not bear such costs;

4.4.3 Unless otherwise agreed by the Parties, the repaired defective modules or the new modules with which the defective ones are replaced shall be transported by Aiko Energy to the same destination according to the same trade terms specified in the Sales Contract of the original modules corresponding to the modules involved in the claims, and the premium, freight charge, customs clearance fee, and other reasonable expenses (the Customer should contact with Aiko Energy in advance and provide the invoices of relevant service providers to apply for compensation) shall be borne following the original trade terms. All costs and other related expenses incurred in removing, repackaging, installing, or reinstalling the products shall be borne by the Customer.

## 5. Exemption Clauses

**The Limited Warranty does not apply to the following modules, including but not limited to:**

5.1 Product damage or functional failure caused by the Customer's improper installation, use, and maintenance as the Customer fails to comply with the relevant provisions of Aiko Energy's Installation Manual, Technical Specifications, and Maintenance Manual; (The data in the installation manual is based on tests conducted by AIKO or third-party certification agencies, in accordance with the static load requirements of the IEC 61215 standard.)

5.2 Product damage or functional failure caused by the Customer's improper use, misuse, negligence, vandalism, or accident;

5.3 Product damage or functional failure caused by the Customer's power failure, power surge, lightning, flood, fire, accidental damage or damages or collisions caused by human and biological activities, industrial chemical exposure, or other events beyond Aiko Energy's control.

5.4 As for ODM non-standard materials, non-standard installations, and non-standardly designed products, Aiko Energy shall not assume the liabilities for the product defects which are caused by the materials, processes, or installation methods designated by the Customer and which are found during the warranty period, unless otherwise agreed.

5.5 The Customer boosts to a voltage that exceeds the maximum system voltage or surge;

- 5.6 The building where the Customer installs the products has defective parts;
- 5.7 The Customer operates the modules at an abnormal ambient temperature, and the application (application environment exceeds the normal working temperature) of the modules. Or the application environment changes rapidly, which causes the products to be corroded, oxidized, or affected by chemicals.
- 5.8 The Customer fails to pay the price of the goods or any other amount (whether the total or part of the prices of the goods or any interest or expenses of overdue payment) to Aiko Energy and its affiliated companies;
- 5.9 The Customer uses the products or conducts reverse-engineering of Aiko Energy's products in a manner that infringes the intellectual properties (including but not limited to patent rights, trademark rights, etc.) of Aiko Energy and any of its affiliated companies;
- 5.10 Aiko Energy shall have the right to reject the Customer's claims if a module's model number and serial number marks are altered or removed without Aiko Energy's written authorization or cannot be identified clearly;
- 5.11 Appearance defects or effects caused by normal wear and change in the appearance of photovoltaic module materials that do not cause the output power to fall below the guaranteed peak power. The normal wears of photovoltaic module materials include but are not limited to color change in the frames, weathering of the glass coating, and discolored areas around or over any part of a single solar cell or photovoltaic module;
- 5.12 The Customer removes the modules from the original installing location or changes the project site without the explicit written approval of Aiko Energy.

## **6. Limitation Clauses**

- 6.1 The terms and conditions of this Limited Warranty shall expressly supersede and exclude all other warranties, express or implied, including but not limited to warranties for merchantability, warranties for particular purposes, special uses, or applications, as well as other obligations or liabilities that Aiko Energy should assume unless Aiko Energy has amended this Limited Warranty in writing and signed and recognized other obligations and liabilities.
- 6.2 To the fullest extent permitted by law, the Customer understands and agrees that Aiko Energy shall not be liable for personal injuries or property damages and shall not be responsible for any other losses or injuries arising from or concerning the modules (including but not limited to any defects of the modules, any defects arising from the use and installation of the modules). Aiko Energy shall not be liable for collateral, derivative, or unique damages caused by any cause.
- 6.3 The indirect losses caused by product unavailability or quality issues, including but not limited to profit loss, production loss, power generation loss, loss of business opportunities, goodwill loss, increased operating costs, or revenue loss, are expressly excluded herein. Suppose Aiko Energy needs to indemnify the Customer. In that case, the

total amount of all compensations shall not exceed the amount of the invoice for the defective modules paid by the Customer. To avoid doubt, in case of any contradiction or inconsistency between the provisions of the Module Sales Contract, Module Standard Technical Protocol , other related documents and this Limited Warranty, the provisions hereof shall prevail.

## **7. Transfer of Warranty Rights and Interests**

7.1 The Customer may transfer the rights of this Limited Warranty to the subsequent new owner after Aiko Energy agrees and signs the tripartite agreement, provided that the Customer guarantees that:

7.1.1 The modules remain intact and non-removable at the initial installing location;

7.1.2 There is no arrears or other payables (such as liquidated damages) under Module Sales Contract;

7.1.3 The new owner shall be bound by all the terms and conditions of this Limited Warranty. The subject of transfer is the entirety of this Limited Warranty instead of part of it.

7.2 If requested by Aiko Energy, the Customer shall provide reasonable evidence to prove the corresponding ownership succession or transfer within 15 working days after receiving the notice from Aiko Energy; otherwise, Aiko Energy shall have the right to refuse to settle the relevant requests for claims without bearing any liabilities from that place.

7.3 Except for the preceding, this Limited Warranty shall not be transferred in any other way. Any transfer that does not comply with this Article shall not be binding on Aiko Energy. Aiko Energy shall have the right to refuse to settle the relevant requests for claims without bearing any liabilities from that place.

## **8. Divisibility of the Terms and Conditions**

In the case that any part or provision of this Limited Warranty is affirmed to be null, invalid, or unenforceable, or the applicability of such claim or provision to certain persons or under certain circumstances is affirmed to be void, invalid, or unenforceable, such circumstances shall not affect the validity of any other parts or provisions of this Warranty or the applicability of this Warranty. Under such circumstances, the applicability of other parts or provisions of this Warranty shall be deemed independent and valid.

## **9. Governing Laws and Settlement of Disputes**

Any dispute(s) in connection with this Limited Warranty, including but not limited to the existence, validity, breach, or termination, shall be settled following the mutually agreed methods for dispute settlement specified in the Sales Contract signed by and between the Parties. In case of any disagreement on the liability judgment for the warranty claims, the Customer and Aiko Energy, as a result of this, explicitly agree to entrust one of the authoritative test organizations, Only, TÜV Rheinland, TÜV SÜD, CQC, CGC Fraunhofer



ISE in Freiburg and KIWA for testing. And these test organizations can be invited to make the final verdict on the claims. All expenses incurred in entrusting a third-party test organization for testing shall be borne by the Defaulting Party unless otherwise stipulated in the final verdict or award for dispute settlement. Aiko Energy reserves the right of final interpretation of the Limited Warranty.

## **10. Force Majeure**

Aiko Energy shall not be liable to the Customer in the case that it fails to fulfill or delays in fulfilling its obligations under this Limited Warranty due to force majeure such as wars, disasters, riots, strikes, lack of appropriate or sufficient labor force, materials, technologies or production capacity and any unforeseeable events beyond the control of Aiko Energy, including but not limited to any technical or physical events or conditions that Aiko Energy is unable to have been reasonably aware of or to have known when selling the defective products or when the warranty claim is filed.

## **11. No Any Other Express Warranty**

This Limited Warranty is the only express Warranty (whether written or oral) made to the Customer concerning the products unless otherwise required by applicable laws or otherwise amended by Aiko Energy in writing; no one shall have the right to restrain, extend or modify this Limited Warranty in any other way.



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