



# LIMITED WARRANTY

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FOR RISEN ENERGY  
P-TYPE DUAL GLASS AND BIFACIAL PV MODULE

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Revision: A1[2025]



The warranties described in this limited warranty (such warranties being referred to collectively as this “Warranty”) cover SPV MODULE(s) sold by Risen Energy Co., Ltd or its affiliates, who is the contracting party for the specific sales contract or purchase order (referred to “Supplier”), as below:

1. RSM60-6-xxxPDG (xxx=Module Power)
2. RSM120-6-xxxPDG (xxx=Module Power)
3. RSM72-6-xxxPDG (xxx=Module Power)
4. RSM144-6-xxxPDG (xxx=Module Power)
5. RSM60-6-xxxMDG or BMDG (xxx=Module Power)
6. RSM120-6-xxxMDG or BMDG (xxx=Module Power)
7. RSM72-6-xxxMDG or BMDG (xxx=Module Power)
8. RSM144-6-xxxMDG or BMDG (xxx=Module Power)
9. RSM132-6-xxxBMDG (xxx=Module Power)
10. RSM120-7-xxxBMDG (xxx=Module Power)
11. RSM144-7-xxxBMDG (xxx=Module Power)
12. RSM80-8-xxxBMDG (xxx=Module Power)
13. RSM90-8-xxxBMDG (xxx=Module Power)
14. RSM100-8-xxxBMDG (xxx=Module Power)
15. RSM110-8-xxxBMDG (xxx=Module Power)
16. RSM120-8-xxxBMDG (xxx=Module Power)
17. RSM132-8-xxxBMDG (xxx=Module Power)
18. RSM150-8-xxxBMDG (xxx=Module Power)
19. RSM160-8-xxxBMDG (xxx=Module Power)
20. RSM144-9-xxxBMDG (xxx=Module Power)
21. RSM156-9-xxxBMDG (xxx=Module Power)
22. RSM144-7-xxxBMDGZ (xxx=Module Power)
23. RSM110-8-xxxBMDGZ (xxx=Module Power)
24. RSM120-8-xxxBMDGZ (xxx=Module Power)
25. RSM132-8-xxxBMDGZ (xxx=Module Power)
26. RSM144-7-xxxBMTG (xxx=Module Power)
27. RSM110-8-xxxBMTG (xxx=Module Power)
28. RSM120-8-xxxBMTG (xxx=Module Power)
29. RSM132-8-xxxBMTG (xxx=Module Power)

This Limited Warranty is valid from March 20<sup>th</sup>, 2025 and shall remain valid until superseded from time to time by a successive limited warranty.

This Limited Warranty applies to the SPV MODULE(s) which are manufactured after March 20<sup>th</sup>, 2025.

For the avoidance of doubt, all SPV MODULE(s) supplied by Supplier during the tenure of this Limited Warranty shall have the terms of this Limited Warranty applied during the SPV MODULE(s) warranty periods as described herein.

Supplier warrants to the original purchaser (“Purchaser”) of any above-referenced SPV MODULE(s) that, when shipped in its original container to its destination of installation, the SPV MODULE(s) will be free from defective workmanship and materials under normal application, installation, use and service conditions. In the event that the SPV MODULE(s) is found to be defective or fails to meet the Warranties, then Supplier shall, at its sole discretion, provide one of the following remedies:

- a) Provide additional SPV MODULE(s) to compensate for the power gap of the defective Module(s); or
- b) Repair or replacement of the defective SPV MODULE(s); or
- c) Refund either:

- The residual value of the defective SPV MODULE(s) (referred to “**Residual Value**”), calculated as:

Residual Value = Market Price at the Time of Claim (price-per-watt) × Nominal Power × (remaining Limited Power Warranty Period / total Limited Power Warranty Period);

OR

- The value equivalent of the output gap between the guaranteed power output and the actual power output of the defective SPV MODULE(s) (referred to “**Value Equivalent of the Output Gap**”), calculated as:

Value Equivalent of Output Gap = Market Price at the Time of Claim × (Sum of the remaining theoretical warranty power - Sum of STC power actually measured);

whichever is lower between the Residual Value and the Value Equivalent of the Output Gap.

Where:

- i. The Market Price at the Time of Claim (price-per-watt) shall be determined by Supplier based on market conditions.
- ii. "Nominal Power" means the power output of the MODULE(s) in watts as labeled on the original nameplate. The nominal power does not include any positive tolerance that may exist in actual modules. If there is a discrepancy between the power output labeled on the original nameplate and that specified in the sales contracts or purchase orders, the lower value shall be used as the nominal power.
- iii. "Sum of the remaining theoretical warranty power" =  $[ \text{Nominal Power} \times (1 - (\text{First Year Degradation Rate} + \text{Annual Degradation Rate} \times (N-1))) \times \text{Number of defective SPV MODULE(s)}]$ , where N represents the year number ( $0 \leq N \leq \text{Limited Power Warranty Period}$ ).
- iv. "Sum of STC power actually measured" means the peak power output of the MODULE(s) measured under Standard Test Conditions (STC) at any time after the warranty start date, excluding measurement uncertainties.
- v. "Peak Power" means the peak watt power generated at the maximum power point under Standard Test Conditions (STC).
- vi. "Standard Test Conditions (STC)" means:
  - (a) AM 1.5 spectrum
  - (b) Radiation intensity: 1000W/m<sup>2</sup>
  - (c) Cell temperature of 25°C at right angle irradiance.

All measurements shall be made at the terminal junction box in accordance with IEC61215 using Supplier's calibration and testing standards valid at the time of MODULE manufacture. Supplier's calibration standards shall conform to the standards used by internationally recognized testing organizations authorized to perform such testing.

This Warranty is in addition to whatever implied warranties may be granted to Purchaser by law; please see clause 5 following for additional details. All implied warranties including the warranties of merchantability and fitness for a particular purpose are limited to the period(s) set forth herein, which commence on the Warranty Start Date. No other offer of warranty, either expressly stated or implied, by any person or entity, will supersede the conditions of this Warranty.

## 1. General Exclusion

This Warranty shall be sole and exclusive warranties granted by Supplier and shall be the sole and exclusive remedy available to Purchaser. This exclusion applies to the extent permissible by law. Correction of defects, in the manner and for the period of time described herein, shall constitute complete fulfillment of all liabilities and responsibilities of Supplier to Purchaser or other end user with respect to the SPV MODULE(s) and shall constitute full satisfaction of all claims, whether based on contract, negligence, and strict liability otherwise. In no event shall Supplier be liable, or in any way responsible, for any damages or defects in the SPV MODULE(s) that are caused by repairs or attempted repairs performed by anyone other than Supplier or its employees or contractors or other service providers authorized by Supplier. Supplier shall not be liable or in any way responsible for any incidental or consequential loss. Supplier's aggregate liability in damages or otherwise shall not exceed the invoice amount paid by Purchaser for the applicable SPV MODULE(s).

## 2. Warranty

### 2.1. 12 Years Limited Product Warranty

The warranty period for material defects and workmanship is for 12 years from the Warranty Start Date, and during such warranty period, the SPV MODULE(s):

- Will be free from material defects in design, materials and workmanship that impair the performance of the Module ("Limited Product Warranty");
- Will conform to the specifications and the drawings applicable thereto.



Any deterioration in appearance of the SPV MODULE(s), including any normal wear and tear, scratches, stains, mechanical wear, rust, mold, optical deterioration, that occur after delivery to Purchaser shall not qualify as a defect hereunder, if and to the extent such deterioration does not result in a material impairment of the functioning of the SPV MODULE(s). Glass breakage shall constitute a claim under this Warranty only to the extent that there is no external cause of the breakage.

## 2.2. 30 Years Limited Power Warranty

The warranty period with respect to minimum power output continues for a total of 30 years from the Warranty Start Date.

### 2.2.1 Annual Power Variation

At the end of the first year, minimum power will be not less than 98% for *p*-type Monocrystalline Solar PV Modules of the minimum rated power output as specified in Product Specification, provided that such loss in power is determined to be due to defects in material or workmanship, and at the end of each year after the first year, the power output will not have reduced by more than 0.45% per year of the original rated power output specified in Product Specification, provided that such loss in power is determined to be due to defects in material or workmanship.

Notwithstanding clause 2.2.1 herein, Products identified with product identification number(s) with 156.75mm cells:

1. RSM60-6-xxxPDG (xxx=Module Power)
2. RSM120-6-xxxPDG (xxx=Module Power)
3. RSM72-6-xxxPDG (xxx=Module Power)
4. RSM144-6-xxxPDG (xxx=Module Power)
5. RSM60-6-xxxMDG or BMDG (xxx=Module Power)
6. RSM120-6-xxxMDG or BMDG (xxx=Module Power)
7. RSM72-6-xxxMDG or BMDG (xxx=Module Power)
8. RSM144-6-xxxMDG or BMDG (xxx=Module Power)
9. RSM132-6-xxxBMDG (xxx=Module Power)

At the end of the first year, minimum power will be not less than 97.5% for Polycrystalline Solar PV Modules, Cast-monocrystalline Solar PV Modules, and *p*-type Monocrystalline Solar PV Modules of the minimum rated power output as specified in Product Specification,

provided that such loss in power is determined to be due to defects in material or workmanship, and at the end of each year after the first year, the power output will not have reduced by more than 0.5% per year of the original rated power output specified in Product Specification, provided that such loss in power is determined to be due to defects in material or workmanship.

## 3. Additional Item(s) Excluded from Warranty Coverage

This Warranty does not apply:

- a) If Purchaser has failed to pay the due purchase price to Supplier.

Any withholding of the due purchase price or part thereof shall render the warranty inoperable until the purchase price is paid. In the event that Purchaser chooses to initiate a claim under the terms of the warranty while the due purchase price is not complete, Supplier shall inform the Purchaser of the details of the outstanding payment, whereafter the Purchaser can choose to resolve the remaining purchase price and restore the warranty to the operational status;

- b) If Purchaser has failed to provide proof of purchase or product information;
- c) If the SPV MODULE(s) is improperly installed, or is abused or misused, or deviates from the manual or instructions;
- d) If the type or serial number of the SPV MODULE(s) has been altered, removed or made illegible;
- e) If the SPV MODULE(s) is installed in a mobile (excluding a photovoltaic tracking system) or marine environment (excluding marine modules) or is subjected to improper voltage or power surges or abnormal environmental conditions (such as acid rain or other pollution);
- f) If the components of the construction on which the SPV MODULE(s) is mounted are defective, causing external corrosion, mold discoloration or the like to occur;

- g) If the defects in the SPV MODULE(s) are caused by any of the following factors: extreme thermal or environmental conditions or rapid changes in such conditions, corrosion, oxidation, modifications or connections not authorized by Supplier, opening or repair not authorized by Supplier, accident, force of nature (such as lightning strike), contamination by a chemical product, or other acts beyond Supplier's reasonable control (including but not limited to damage by fire, flood, and the like);
- h) To death of or injury to persons resulting from any cause other than the negligence or willful misconduct of Supplier or its employees or contractors or other agents or representatives;
- i) To incidental, consequential or special damages such as loss of use, loss of profits, revenues, business, goodwill, damage to reputation or expenses payable to a third party.

#### **4. Various**

Neither the repair or replacement of the SPV MODULE(s), nor the supply of additional SPV MODULE(s), shall cause the amendment of the original Warranty Start Date, and the original periods of this Warranty shall not be extended thereby. Any replaced SPV MODULE(s) shall become the property of Supplier for their disposal. If Supplier discontinues the type of SPV MODULE(s) covered by this Warranty, Supplier has the right to deliver another type of SPV MODULE(s) (different in size, color, shape and/or power) of equivalent or greater power, as appropriate.

#### **5. Statutory Rights**

This Warranty does not affect Purchaser's statutory rights available within Purchaser's jurisdictional territory in respect of the sale of consumer goods, and if such statutory rights exist, including but not limited to pursuant to national laws executing EC directive 99/44 or pursuant to the Magnuson Moss Warranty Act, such statutory rights will prevail over this Warranty. If the laws of Purchaser's jurisdictional territory do not allow the exclusion or limitation of consequential or incidental damages, the laws of such jurisdictional territory will prevail over this Warranty. Specifically applicable to Purchasers that are defined as "consumers" within the meaning of Australian Consumer Law, (a) Purchaser is entitled to (i) either the repair or the replacement of the goods, if the goods fail to be of acceptable quality, or (ii) either the replacement of the goods or the refund of its payment for the goods, if the goods undergo a major

failure, and (b) if the goods undergo a major failure, Purchaser is also entitled to compensation for any reasonably foreseeable loss or damage.

#### **6. Force Majeure**

Supplier shall not be responsible or liable in any way to Purchaser for any non-performance or delay in performance under this Warranty due to acts God, war, riots, strikes, unavailability of suitable and sufficient labor, material, or capacity or technical or yield failures and any unforeseen event beyond its control, including but not limited to any technological or physical event or condition that is not reasonably known or understood at the time of the sale of the SPV MODULE(s) or the claim.

#### **7. Severability**

If any provision of this Warranty or the application thereof to any person or circumstance is held illegal, invalid or otherwise unenforceable, such holding shall not affect any of the other provisions of this Warranty, and to that end, such other provisions of this Warranty shall be treated as severable.

#### **8. Transferability**

This Warranty shall be transferable by Purchaser to a new legal owner of the SPV MODULE(s), provided that:

- a) Such new owner also takes possession of the original proof of purchase;
- b) The modules remain in their original installation location;
- c) None of the provisions of this Warranty shall have been breached by Purchaser prior to such transfer of ownership.

For the avoidance of doubt, the transfer of this Warranty does not amend the original Warranty Start Date or the applicable periods specified herein.

#### **9. Applicable Law & Dispute**

The validity, construction and interpretation of this Warranty and the enforcement of the rights and duties of Purchaser and Supplier hereunder shall be governed by the laws of the country of the original installation location of the SPV MODULE(s) (excluding such country's conflicts of law rules)



and to the exclusion of the United Nations Convention on the International Sale of Goods dated 11th April 1980 (CISG) and any other uniform law.

All disputes arising out of, or in connection with, this Warranty shall be finally settled before the ordinary courts of the country of the original installation location of the SPV MODULE(s).

## 10. Warranty Start Date

The Warranty Start Date is the earlier of (a) the date of delivery (as per Incoterms 2020) of the SPV MODULE(s) to Purchaser and (b) the date that is six months after the date of shipment of the SPV MODULE(s) from Supplier's production facility.

## 11. Claims Procedure

In the event that Purchaser determines that a claim can be made under this Warranty, Purchaser shall immediately deliver written notification thereof at the address shown below, specifying each alleged claim (including evidence thereof), the original Purchaser's proof of purchase, and the corresponding serial number(s) of the affected SPV MODULE(s). In the preceding sentence, the term "immediately" means within 2 months of identifying the defect or other problem that purchaser believes underlies each claim being made under this Warranty.

Purchaser's return of any SPV MODULE(s) will not be accepted unless prior written authorization shall have been given by Supplier, and upon such authorization to return SPV MODULE(s), Purchaser must arrange secure packaging that is sufficient to ensure that there is no change in the state of the SPV MODULE(s) during return shipment and shall insure such SPV MODULE(s) for the benefit of Supplier. Supplier will be responsible for any return shipment transportation charges, customs clearance and other costs in returning SPV MODULE(s) and for the costs of reshipment of any repaired or replacement SPV MODULE(s) based on the previously adopted Incoterms between Supplier and Purchaser, but will not be responsible for the costs related to removal or installation or reinstallation of SPV MODULE(s).

In the event of a dispute between Purchaser and Supplier that arises out of the technical evaluation of the validity of any Warranty claim, a first-class international test-institute (such as TUV Rheinland in Cologne, Germany, or Arizona State University in the state of Arizona, United States of America, or other organization or institution of comparable competence and

international standing) shall be engaged to determine the validity of such claim, and such determination by such test-institute shall be final, conclusive and binding on both parties. The party whose position on the validity or non-validity of any claim is counter to the determination of such test-institute shall bear the cost of such technical evaluation and determination by such test-institute.

Unless otherwise specified in the specific sales contract / purchase order or required by mandatory applicable law, Purchaser shall, at its own cost, dispose of any out-of-use SPV MODULE(s) in accordance with applicable regulations on electronic waste treatment and disposal. Such out-of-use SPV MODULE(s) shall not be reworked, re-sold or re-used in any manner. In the event that Supplier elects to retrieve such SPV MODULE(s), the title and ownership of the SPV MODULE(s) shall automatically transfer to Supplier. In such case, Supplier shall bear the transportation costs for delivering the SPV MODULE(s) from their original place to the destination designated by Supplier.

It is Supplier belief that Purchaser will have trouble-free use and enjoy ongoing viability of operation by deploying Supplier's SPV MODULE(s). This Warranty provides confirmation of the remedial rights and offers additional comfort.

If Purchaser seeks additional information on the applicability of this Warranty, please contact Supplier's representative.

### Contact Information of Supplier

Add: Tashan Industry Zone, Meilin Street,  
Ninghai-315609, People's Republic of China  
Tel: +86-574-59953239  
E-mail: afterservice@risen.com  
cc: info@risen.com