



WARRANTY POLICY

SOLAR PHOTOVOLTAIC MODULES

SOLAR PV MODULE PRODUCT AND PERFORMANCE WARRANTY

INTRODUCTION

Novasys Greenergy Pvt. Ltd. is committed to excelling in its Assembly of Solar Photovoltaic Modules with high-quality of products and its delivery.

We are committed to protect the Environment by prevention of Environmental Pollution around the work space, appropriate to the context of organization and complying with applicable legal regulation and other requirements.

NOVASYS is a trusted manufacturer of high-efficiency Mono crystalline & Polycrystalline 1500 VDC solar photovoltaic panels in India with a distribution network stretching across the globe. We strongly believe in promoting the application of photovoltaic technology to ensure a sustainable future and bring the benefits of solar power to the world.

Identifying the different benefits and end-user requirements of solar power, Novasys has also ventured into the manufacturing and deployment of solar systems across the country. These have been well received by consumers benefiting from savings in their electricity bills and to protect environment from Carbon-di-oxide (Co2).

Leading our many successes is a dedicated team of environmentally conscious entrepreneurs who wish to ensure a sustainable future. The team consists of experts with diverse backgrounds and rich experience in large-scale manufacturing, research and customer service. Together our mission is to make NOVASYS one of the largest manufacturers of Solar PV Panels in the world.

Novasys Greenergy Pvt. Ltd.

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Novasys Greenergy Pvt. Ltd. modules are supplied with limited product and linear performance warranty for the customers installing any of the specified brand models listed below :

Sr. No.	Module Type	Model Name	Wattage
1.	Poly-crystalline	NOVA-AAA-P-72	300-340
2.	Poly-crystalline	NOVA-AAA-P-66	280-320
3.	Poly-crystalline	NOVA-AAA-P-60	250-290
4.	Poly-crystalline	NOVA-AAA-P-54	225-260
5.	Poly-crystalline	NOVA-AAA-P-48	205-230
6.	Poly-crystalline	NOVA-AAA-P-36	150-175
7.	Poly-crystalline (half cut)	NOVA-AAA-P-144	300-350
8.	Poly-crystalline (half cut)	NOVA-AAA-P-120	250-290
9.	Poly-crystalline (half cut)	NOVA-AAA-P-72	150-175
10.	Mono-crystalline	NOVA-AAA-MP72	355-395
11.	Mono-crystalline	NOVA-AAA-MP-66	335-360
12.	Mono-crystalline	NOVA-AAA-MP-60	300-330
13.	Mono-crystalline	NOVA-AAA-MP-54	275-295
14.	Mono-crystalline	NOVA-AAA-MP-48	235-260
15.	Mono-crystalline	NOVA-AAA-MP-36	175-197
16.	Mono-crystalline	NOVA-AAA-MP-32	155-175
17.	Mono-crystalline (half cut)	NOVA-AAA-MP-144	375-395
18.	Mono-crystalline (half cut)	NOVA-AAA-MP-120	300-330
19.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-156	550-600
20.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-144	495-550
21.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-132	455-505
22.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-120	415-460
23.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-108	375-415
24.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-96	325-365
25.	Mono-crystalline (M10 half cut)	NOVA-AAA-MP-72	245-275
26.	Poly-crystalline (cut)	NOVA-AAA-P-36	10-165

WARRANTY START DATE

The Warranty Start Date is the date of installation of the Products or one month after the delivery of the Products to the Buyer, whichever date is earlier. Novasys Greenergy Pvt. Ltd. ("Novasys") provides the following Limited Warranty to the first purchaser/user of its Photovoltaic Products ("Module"). Warranty is applicable from the date of first sale to the original purchased / user.

1. LIMITED PRODUCT WARRANTY

The product warranty is to cover defective materials or workmanship impairing the functionality of the modules under standard application, installation and use and service conditions provided by Novasys. The product guarantee does not cover ordinary wear and tear, scratches, spots, rust, discoloring, or any other natural degradation not impairing the mechanical stability of the module.

Novasys product (modules) have 10 years (sr. no.- 1 to 18) & 12years (sr. no.-19 to 25) & 5 years (Sr. no.- 26) product warranty starting from the date of sale (invoice date). If during the term of this warranty the module(s) is/are found to be having Manufacturing Defects, then Novasys will, at its sole option (i) repair (ii) replace such module(s) which is /are found to be having Manufacturing Defects with an equivalent Module(s), or (iii) refund the purchase price of the module without interest or any charge as measured by considering 5% depreciation per year on original purchase price or the then prevailing price of similar modules whichever is lower, provided that the then prevailing price does not exceed the Original Sale Price at which the First purchaser has purchased the Product.

In case of glass breakage, claim shall only be enforceable to the extent that there was no external cause (natural or manmade) for the breakage. The foregoing remedies shall be NOVASY'S sole and exclusive obligation, and the customer's sole and exclusive remedy, for any module's Failure due to conformance to the Limited Warranty in this section and any repair or replacement, shall not extend the warranty period set forth herein.

It shall be the liability of the customer to transport & mount additional PV modules at his own cost and expense.

This limited warranty is only for the Product and does not warrant the level of power output. This warranty is subject to Warranty Exclusions and Limitations.

2. LIMITED PERFORMANCE/POWER WARRANTY

NOVASY gives the following power output warranty for those of its standard photovoltaic modules that are not explicitly prototypes. If a module performs at less than a specified percentage of the original minimum rated power as shown in the specification sheet within a period as from the date of sale by NOVASY

Novasys Modules Degradation Rate (Poly/ Multi-crystalline Module)			
Year	Year 1	Year 2- 11	Year 12-25
Degradation %	2.65 %	0.80%	0.8%
Linear %	2.65%	10%	20%

Note : Above chart is applicable for sr. no. 1 to 9 at STC (Irradiance 1000W/M²,Temperature 25°C, 1.5AM)

Novasys Modules Degradation Rate (Mono-crystalline Module)			
Year	Year 1	Year 2- 12	Year 13-27
Degradation %	2.75 %	0.75%	0.75%
Linear %	2.75%	10%	20%

Note : Above chart is applicable for sr. no. 10 to 25 at STC (Irradiance 1000W/M²,Temperature 25°C, 1.5AM)

If a module performs at less than above mentioned percentage of the original minimum rated power as shown in the specification sheet within a period from the date of sales (invoice date) by Novasys (sr. no. 26 applicable for 10 years with min. 80% performance), Novasys at its sole discretion either will use

its own equipment under Standard Testing Conditions (STC) or use a neutral third party for testing performance of Module(s), whichever agreed by First Purchaser / First User, for which claim has been raised. If the results of such test prove beyond

doubt that the Module(s) is/are not providing the warranted percentage of its specified minimum power output during the Term of Warranty, then Novasys shall at its sole option either (i) repair, (ii) supply similar Module(s) for replacement, or (iii) Post taking corrective actions, to overcome the reduction in output power, NOVASYS to only provide an additional module to the customer so that degraded power is compensated by additional modules. It shall be the liability of the customer to transport & mount additional PV modules at his own cost and expense. This is subject to Warranty Exclusions and Limitations. Repair/replacement of Module(s) shall be performed free of charge only if the Module(s) is/are found to have Manufacturing defects or short in output proved through the aforesaid test (All transportation cost shall be borne by the buyer(s)). Since the test(s) is/are performed by consent of the First Purchaser / First User, NOVASYS / Selected Third Party's inspections and tests shall be final and decisive for the existence or non-existence of the defect, non-conformity and/or output shortage. In case the First Purchaser / First User, decides to engage a manufacturer testing lab or neutral Third Party to conduct the tests, the cost of conducting such tests shall be paid by the First Purchaser / First User.

3. EXCLUSIONS AND LIMITATIONS

This limited Warranty does not apply to any Products which have been subject to: ®

- 3.1) Failed to pay the full purchase price towards Novasys or its subsidiaries which have put the module on the market even though (a) the payment (Principal + Interest payment {if any}) was due and (b) the direct customer who has obtained the module from Novasys or its subsidiary ("Direct Customer") is not entitled to withhold the purchase price or parts of the purchase price. In case Novasys can reject the claims under this Limited Warranty based on this provision, the Buyer can deposit the amount not paid along with interest@18% per annum in order to trigger the limited Warranty claims;
- 3.2) Failed to provide proof of purchase or product information;
- 3.3) Failure to comply with the requirements of Novasys Installation & user manual or rules of use and application for the Products.
- 3.4) Failure due to improper operation and maintenance (not limited to operation and maintenance requirements requested by Novasys applicable user manual or other applicable local laws and regulations of the place of installation).
- 3.5) Failure due to lack of cleaning on site with safety care of module(s).
- 3.6) Hotspot due to lack of cleaning, Shadow effect, either no earthing or improper earthing.
- 3.7) Module service by technicians who are not qualified under the relevant law and/or applicable regulations at the place of installation.
- 3.8) Change, erasure or illegible-made of the Product's type, nameplate or serial number
- 3.9) Exposure to voltage in excess to the maximum system voltage or power surges
- 3.10) Defective components in the construction on which the module is mounted
- 3.11) Exposure to module discoloration or similar external effects
- 3.12) **Unauthorized Modifications:**

Operation/maintenance by use of unauthorized spare parts, application under extreme environmental conditions or rapid changes in such environments resulting in corrosion,

oxidation, or affected by chemical products, other acts beyond Novasys reasonable control (including direct or indirect damage by war, fire, flood, hurricane, volcanic eruption, surface collapse, debris flow, lightning, earthquake, heavy snowfall, hailstone, strong breeze etc.)

- 3.13) Defects and/or failures caused by devices and/or parts other than the PV Module(s) or by mounting methods of such devices and/or parts.
- 3.14) Defects and/or failures caused by defective wiring, installation, or handling
- 3.15) Defects and/or failures caused by installations not in conformance with PV Module(s) specifications, Novasys installation & user manual or labels attached to the PV Module(s)
- 3.16) Defects and/or failures caused by unauthorized maintenance, operation or modification
 - 3.1) Defects and/or failures caused by removal from the first place of installation.
 - 3.2) Defects and/or failures caused by inappropriate handling during transportation/movement, storage or Installation.
 - 3.3) Defects and/or failures caused by use on a mobile unit including, but not limited to, vehicles, vessels, etc.
 - 3.4) Defects and/or failures caused by external accidents such as fire, explosion, and civil disorder
 - 3.5) Defects and/or failures caused by Moisturization affected junction box(s) terminal(s) due to open junction box cap
 - 3.6) Defects and/or failures caused by Wet junction box/cable/connector(s) due to external water sources.
 - 3.7) Installed solar module in direct contact with the salt water, that is offshore (e.g. platforms) and marine (e.g. boats, piers) applications, or contamination resulting from exceptional exposure to salt water or other chemicals.
 - 3.8) Defects generated due to improper or irregular cleaning of modules.
 - 3.9) Defects generated due to material unloading done without forklift, harsh movement of modules at site, handling & storing.
 - 3.10) Defects generated due to water ingress condition of MC4 connector, JB & module.
 - 3.11) Defects generated due to walking or direct force applied on module(s).
 - 3.12) Defects and/or failures caused by external particles, chemicals, smoke and/or other pollution, acid rain, etc.
 - 3.13) Low generation due to shadow of surrounding obstacles (trees/building / structure etc.)
 - 3.14) Use of the Products in such a manner as to infringe Novasys or any third party's intellectual property rights including but not limited to patents, trademarks
 - 3.15) Defects and/or failures caused by natural forces, acts of God or force majeure events and other unforeseen circumstances or causes beyond Novasys 's reasonable
 - 3.16) This warranty does not apply to any alteration of the appearance of the Module(s) that does not affect the performance or functionality of the Module(s).
 - 3.17) Failure due to the use of mobile units such as vehicles
 - 3.18) Failure due to water pH more than 7 or Hardness more than 75PPM or use of detergent or any other chemical.

4. PROCEDURE TO CLAIM WARRANTY

Please contact Novasys immediately by Email to info@novasysgreen.com. The Warranty could be claimed only by First User or First Purchaser, at one time for one cause, as the case may be and not by both, or, twice.

The Warranty Claim Application should be made immediately supported with the corresponding:

- (i) High-Resolution images of suspected modules specify area.
- (ii) Photographs of the Module(s) front & rear and installation site surrounding area.
- (iii) Inverter, DCBD, ACDB, lightning arrestors photograph(s).
- (iv) Serial numbers including barcode photograph(s).
- (v) Date on which the Module(s) have been purchased, original invoice, place of purchase, name of dealer/distributor and details of previous claims made.
- (vi) A copy of the installation test report following the minimum requirements of IEC 62446 / IEC 60364-6. A copy of the periodical maintenance reports as recommended or required by regional regulations or legal requirements and acceptance protocol of handover after the installation was finished and the system connected to the grid with all relevant measured system data.
- (vii) Cleaning procedure & record,
- (viii) End user details.
- (I) All warranty claims (with proof of defect)

Novasys will not accept any returned panels without a prior lodged complaint or any false information in the Warranty.

N.B. : If the Novasys support team needs some samples of the suspected panels to come to a final conclusion in a claim, the first user will be responsible for sending the samples to the Novasys Laboratory by their own expense.

5. REPAIR, REPLACEMENT OR REFUND REMEDY

Novasys post examination of claim will plan repair or replacement or refund or reject the claim depending on claimed module status.

- (i) Determine a maintenance plan and repair the defective Products; or
- (ii) Refund the difference value between the actual STC power and the warranty power of the defective products (Difference value = purchase price of the module without interest or any charge as measured by considering 5% depreciation per year on original purchase price or the then prevailing price of similar modules whichever is lower, provided that the then prevailing price does not exceed the Original Sale Price at which the First purchaser has purchased the Product (per watt) * (sum of the remaining theoretical warranty power)).
- (iii) Provide free Products to make up for the difference between the actual STC power of defective Products and the warranty power (Difference power = sum of the remaining theoretical warranty power)
- (iv) Replace the defective Products or part thereof by new or remanufactured Products at no charge. The total nominal power of the replaced Products shall not be less than the total remaining theoretical warranty power of the defective Products. NOVASYS reserves the right to

- provide similar Products in replacement of the defective Products if the defective Products are discontinued or otherwise unavailable.
- (v) The costs and other related expenses for the shipments, removal, repack, installation or reinstallation shall remain with the Buyer. Defect Products or end-of-lifetime products shall be disposed off by the Buyer if legally permissible in accordance with local applicable laws or regulations.
- (vi) All other claims under this Limited Warranty against NOVASYS shall be excluded. Under this limited Warranty, NOVASYS is not responsible for any special, incidental or consequential damages (including loss of profits, business interruption, loss of power generation, harm to goodwill or business reputation, or delay damages) whether such claims are based in contract, warranty, negligence or strict tort. This exclusion applies to the extent permissible by law, and even if the remedies set forth below herein are deemed to have failed of their essential purpose.
- (vii) NOVASYS shall not be responsible or liable in any way to the Buyer for any non-performance or delay in NOVASYS performance under this Limited Warranty due to occurrences of force majeure such as war, riots, strikes, unavailability of suitable and sufficient labour, materials, machineries or capacity or technical or yield failures.

6. MANDATORY REQUIREMENTS OF PV MODULE INSTALLATION AND COMMISSIONING

Commissioning of power plant must be done by professional developers only and not by any unauthorised, untrained electrician/ technician.

Solar PV modules cleaning practices must be carried out regularly before Sunrise & twice a week with lint-free cloth & water, avoiding accumulation of any kind of dust/dirt on modules. Also ensure that the water on the glass surface is dried properly by the cloth only, and not by atmosphere, otherwise the same will leave unnecessary water stains/impressions on glass, which will be hard to eradicate later.

Avoid any kind of soiling on PV modules. Soiling is divided into two categories, soft soiling which occurs due to air pollution and hard soiling which results from hard dusts on PV modules.

Prevent any sort-of vegetative growth obstructing sunlight to reach solar cells.

Provide necessary clearance distance between two modules (minimum 20mm) in a string & surrounding of the module.

There shall be a gap of minimum 100 mm between installation surface & module / JB MC4 connector and proper mounting to JB cable.

Uniform string lengths in arrays to be maintained to avoid Voc mismatch greater than 3%. If the lengths of parallel connected strings varies and results in Voc mismatch beyond 3%, a concern may arise for the generation of additional reverse current due to the imparity in potential. Installation of Imp (Maximum Power Current) binned modules in a particular string before series connection should be a mandatory practice. Don't install modules from different Imp bins in same string to avoid reverse current flow from the module with higher Imp to a module with lower Imp. This may damage junction box and bypass diodes. Use of Blocking Diodes in Series with individual strings is a good practice to avoid backflow of current to a weaker (shaded) network as well as to prevent fully charged batteries from discharging or draining back through the array at night.

Use of DCDB for controls the DC power from Solar Panels and with having a necessary surge protection device (SPD) and fuses to protect the solar panels strings and solar inverter from any type of damage. All components used are in accordance with per IEC 61643, IEC 60947.

Use of exact nuts, bolts and washers as per mounting hole dimensions. Use M8 hardware for 9 mm X 14 mm mounting hole (Novasys standard). Don't drill additional mounting holes on modules without consent from Novasys (supplier/manufacturer).

Ensure tight connections of junction box connectors to avoid sparks and fire. Do not disconnect connectors under load. Ensure proper grounding of inverters to avoid any stray currents on frames.

Use an adequate quantity of Lightning arrestors in site to protect modules and components from sudden lightning/thunder. Use of Surge Protections wherever needed.

Limit the number of parallel connected strings as per inverter capacity. The installation site should be restricted.

A big caution board showing "DO NOT THROW SOLID PARTICLES IN THIS AREA" should be displayed in the surrounding of the site (in local languages).

7. CONSEQUENTIAL LOSSES

NOVASYSHS shall in no event be liable for loss of profit, loss of revenues, loss of use, loss of production/Power, costs of capital or costs connected with interruption of operation, loss of anticipated savings or for any special, indirect or consequential damage or loss of any nature whatsoever.

Further Novasys liability does not extend to consequential damages either direct or indirect or expenses for repair or replacements or otherwise paid or incurred without our authority. Novasys accept no liability for defects or depreciation caused by damage due to lightning, rain, neglect, misuse or other abnormal conditions directly to circumstances beyond our control.

There shall be no liability for either party towards the other party for loss of production, loss of profit, loss of use, loss of contracts or for any other consequential or indirect loss whatsoever.

8. GOVERNING LAWS

Every day is a SUN day

Any claim or dispute arising under or in connection with this warranty certificate must be brought exclusively in the court of Nagpur, India subject to Nagpur jurisdiction and warranty herein shall be governed by Indian Laws, unless otherwise agreed between the parties and specifically mentioned in the purchase order or the Supply Agreement.

If any part, provision or clause of this Limited Warranty is held to be invalid, void, or unenforceable due to any particular national or international legislation, all other parts, clauses or applications shall remain in effect and valid.

The limited warranty set forth herein is expressly in lieu of and excludes all other express or implied warranties including, but not limited to, the warranties of merchantability and fitness for a particular purpose and all other obligations or liabilities on the part of Novasys, unless such other warranties, obligations or liabilities are expressly agreed to in writing by Novasys.

Novasys shall have no responsibility or liability whatsoever for damages or injury to persons or property or for other loss or injury resulting from any cause whatsoever arising out of or relating to the PV module(s) including, without limitation, any defects and/or failures in the PV module(s) or from use or installation.

Novasys shall not be liable under any circumstances for any incidental, indirect, consequential or special damages, howsoever caused. In no event shall Novasys's aggregate liability exceed the value of the PV module(s) which is the subject of a claim or dispute. Some jurisdictions do not allow limitations on warranties or exclusions or limitations of damages.