## Mitsui Chemicals India Pvt. Ltd.

ULR No. : TC89062300000050F

DOC No. : MCIND/2023/LB/050.V1 Plot 5 and 6, Swastik Industrial Estate, Vill: Sari, Tal: Telephone : +91 9871742221 Sanand, Ahmedabad, Ahmadabad, Gujarat, India -

FAX : 41204299 382220

E-Mail : <u>puneet.kumar@mitsuic</u>

<u>hemicals.com</u>

BO Code : NA

Test REPORT AS PER: IS/IEC 61730: PART 1

(2004)

QR Code/Barcode: 129189CRS

**REPORT NO: SC22EPI13880\_1** DATE: 02 Aug, 2023

## PART A. PARTICULARS OF SAMPLE SUBMITTED

a) Customer Name & Address : NOVASYS GREENERGY PRIVATE LIMITED

KHASRA NO. 185, MOUZA: MAHALGAON, TAHSIL: KAMPTEE, NAGPUR-441202, MAHARASHTRA, INDIA, NA, MAHARASHTRA, India - 441202

b) Nature of sample : -

c) Grade/Variety/Type/Class Size etc : NA

d) Declare values, if any : -

e) Batch No. & Date of Manufacture : /

f) Quantity : 8

g) Date of Receipt : 01 Dec, 2022

h) BIS Seali) IO's Signaturei: Verified by Sample Cell

i) Any other Information / Expiry Date, If any : /

k) Date of Commencement of Testing : 02 Aug, 2023

I) Date of Completion of Testing : 02 Aug, 2023

m) Section Code : 22E4798N

n) Section Report No. : 22E4798N 1

o) Report Type : New

p) Reference Report No.

q) Remarks : Proceed for further process.

Vinay Singh
OIC SAMPLE CELL

(Authorized Signatory) Authorized on: 02 Aug, 2023 19:08 PM

1. Mitsui Chemicals India Pvt. Ltd.

**Section Report No.: 22E4798N\_1**IS/IEC 61730: PART 1 (2004)

#### PART B. SUPPLEMENTARY INFORMATION

1. Reference to sampling procedure, wherever applicable.

Not Applicable

2. Supporting documents for the measurements taken and results derived like graphs, table sketches and or photographs as appropriate to test report, if any.

Yes

3. Deviation from the test methods as prescribed in relevant ISS/Work instruction, if any. Not Applicable

3. NABL Report required?

Yes

Vinay Singh OIC Electrical (Authorized Signatory) Authorized on: 02 Aug, 2023 19:06 PM

IS/IEC 61730 : PART 1 (2004)

# PART C. TEST RESULT

S.No.	Clause No Table No. Sl. No	Parameter - Method of test	Test Description	Min Limit	Max Limit	Unit	Result/ Observation
1	11	Marking	-	-	-	-	Provided in inside laminate in front side of the module and or backside marking plate. The Date of manufacturing is traceable through serial number provided in inside laminate marking plate.
2	10	Field wiring compartments with covers	mm, Cu. cm.	-	-	-	Certified Junction box used. See Annex 1 for constructional details.
3	9	Creepage and clearance distances	mm	-	-	-	Minimum measured clearance: 13mm, measured on sample no: MCIND/ 2022/0516 with SI. No. NOVABTMPVJ01656) [min. required distance is 11mm]
4	8	Bonding and grounding	Ω	-	-	-	Grounding provision has been provided or the frame and is explained in the user manual.
5	7	Connections	mm, °C. or certificate verification	-	-	-	Connectors are certified as per IEC. 62852:2014 Refer to the attached test report, See Annex 1 for construction. details.
6	6	Internal wiring and current-carrying parts	mm sq., mm. or certificate verification				Cell connector: Manufactured by: Valeo Products LLP, dimension= 0.35mm, Composition of alloy: SnPb-60/40 Note: Please Refer old report no. 4790378653.1.1-BIS- S2. Alternate: Please Refer old report no. 4790378653.1.1-BIS- S2. String connector: Manufactured by: Valeo Products LLP, dimension= 5x0.40 mm, Composition of alloy: SnPb-60/40 Note: Please Refer old report no. 4790378653.1.1-BIS- S2. Alternate: Please Refer old report no. 4790378653.1.1-BIS- S2. Alternate: Please Refer old report no.

7	5	Polymeric materials °	C, mm. or certificate verification	-	-	-	All materials are at least 20°C above maximum measured temperature. Tested as per temperature test clause MST-21 in IS/IEC 61730-2 refer report No. MCIND/ 2023/LB/051.V1
8	4	Construction requirements	-		-	-	Sample is tested as per environmental stress testing procedure and under relevant conditions mentioned in IS14286:2010 and IS/ IEC 61730-2:2004. Module is with frame and completely assembled.
9	3	Application classes	-	-	-	-	Application Class: Class A

Vinay Singh OIC Electrical (Authorized Signatory) Authorized on: 02 Aug, 2023 19:06 PM

Section Report No.: 22E4798N_1	IS/IEC 61730 : PART 1 (2004)
PART D. REMARKS	
Proceed for further process.	

Vinay Singh
OIC Electrical
(Authorized Signatory)
Authorized on: 02 Aug, 2023 19:06 PM



# Test Report issued under the responsibility of:



# **SUMMARY OF TEST REPORT**

**Solar PV Laboratory** 

 TEST REPORT NO:
 MCIND/2023/LB/050.V1

 ULR:
 TC890623000000050F

**DATED (dd/mm/yyyy):** 02/08/2023

# (Number of pages in test report: 4 to 85) TEST FORMAT AS PER IS/IEC 61730-1:2004 (First Edition) +A1:2017 + A2:2017

1. Name of manufacturer:	Novasys Greenergy Private Limited
2. Product:	Crystalline Silicon Terrestrial Photovoltaic
	Modules (Si wafer based)
3. Test Request Number:	SC22EPI13880
4. Model:	Mono Crystalline (PERC):
	NOVA550MP144 (Representative Model)
	Series Models:
	144 Half-cut Cell Family- 182mm Cell (1500V
	System voltage):
	NOVA545MP144, NOVA540MP144,
	NOVA535MP144, NOVA530MP144,
	NOVA525MP144, NOVA520MP144,
	NOVA515MP144, NOVA510MP144,
	NOVA505MP144, NOVA500MP144,
	NOVA495MP144
	132 Half-cut Cell Family- 182mm Cell (1500V
	System voltage):
	NOVA505MP132, NOVA500MP132,
	NOVA495MP132, NOVA490MP132,
	NOVA485MP132, NOVA480MP132,
	NOVA475MP132, NOVA470MP132,
	NOVA465MP132, NOVA460MP132,
	NOVA455MP132
	120 Half-cut Cell Family- 182mm Cell (1500V
	System voltage):
	NOVA460MP120, NOVA455MP120,
	NOVA450MP120, NOVA445MP120,
	NOVA440MP120, NOVA435MP120,
	NOVA430MP120, NOVA425MP120,
	NOVA420MP120, NOVA415MP120

Website: in.mitsuichemicals.com



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ULR No.:	: TC890623000000050F	Report No.: MCIND/2023/LB/050.V1				
		108 Half-cut Cell Family- 182mm Cel	l (1500V			
		System voltage):				
		NOVA415MP108, NOVA410MP108,				
		NOVA405MP108, NOVA400MP108,				
		NOVA395MP108, NOVA390MP108,				
		NOVA385MP108, NOVA380MP108,				
		NOVA375MP108				
		96 Half-cut Cell Family- 182mm Cell (1500V				
		System voltage):				
		NOVA365MP96, NOVA360MP96,				
		NOVA355MP96, NOVA350MP96,				
		NOVA345MP96, NOVA340MP96,				
		NOVA335MP96, NOVA330MP96,				
		NOVA325MP96				
		72 Half-cut Cell Family- 182mm Cell (1500V				
		System voltage):				
		NOVA275MP72, NOVA270MP72,				
		NOVA265MP72, NOVA260MP72,				
		NOVA255MP72, NOVA250MP72,				
		NOVA245MP72				
5. N	Model differences provided	YES				
	(if applicable): Yes/No					
6. N	Model differences verified as per MNRE	YES				
G	Guidelines for series formulation: Yes/No					
7. Test Results:						
SL.NO.	TEST REQUIREMENTS	CLAUSE	VERDICT			
1	Application Classes	3	Р			
2	Construction Requirements	4	Р			
3	Polymeric Materials	5	Р			
4	Internal wiring and current carrying parts	6	Р			
5	Connections	7	Р			
6	Bonding and Grounding	8	Р			
7	Creepage and clearance distances	9	Р			
8	Field wiring Compartments with covers	10	Р			
9	Marking	11	Р			
10	Requirements for supplied documents	12	Р			



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ULR No.: TC890623000000050F Report No.: MCIND/2023/LB/050.V1

## **General Information:**

1. The conformity certificates of critical components are verified to ensure complete testing of product under test and details regarding harmonized IEC/UL Standards (where IS standards are not available) are also provided in the list of critical components.

## **CONCLUSION:**

I, hereby, undertake that the verdict stated in the test reports for all the tests matches with the test results.

- 1. Sample meets all relevant requirements of IS/IEC 61730-1: 2004 (First Edition) + A1:2017: + A2:2017.
- 2. Sample fails to meet the following test requirements:
- 3. "If any deviation is found, suitable punitive action may be taken by BIS".

Date(dd/mm/yyyy): 02/08/2023

(Signature of Authorized person with stamp)

Asim Bisague