



TC-5100

SUMMARY OF TEST REPORT

TEST REPORT NO: HPLI/Test/2303080201/01

DATE: 01/06/2023

(Total Number of Pages in Test Report: 70)

TEST FORMAT AS PER IS 14286: 2010

1. Name of the Manufacturer: Icon Solar En Power Technologies Private Limited

2. Product: Crystalline silicon terrestrial photovoltaic (PV) modules.

3. Model: ISEN590 (Representative Model).

ISEN590 (Tested Model)

156 cells (Cut Cell):

ISEN585 , ISEN580 , ISEN575 , ISEN570 , ISEN565 , ISEN560 (Series models).

144 cells (Cut Cell):

ISEN555 , ISEN550 , ISEN545 , ISEN540 , ISEN535 , ISEN530, ISEN525, ISEN520 (Series models).

132 cells (Cut Cell):

ISEN510 , ISEN500 (Series models).

120 cells (Cut Cell):

ISEN460 , ISEN455 , ISEN450 , ISEN445 , ISEN440 , ISEN435, ISEN430, ISEN425, ISEN420 (Series models).

108 cells (Cut Cell):

ISEN410 , ISEN405 , ISEN400 , ISEN395 , ISEN390 , ISEN385, ISEN380 (Series models).

4. Model differences provided (if applicable): Yes

5. Model differences verified as per MNRE Guidelines for series approval: Yes

6. Test Results:

SL. NO.	TEST REQUIREMENT	CLAUSE	VERDICT
1	Marking	4.0	P
2	Visual Inspection	10.1	P
3	Maximum Power Determination	10.2	P
4	Insulation Test	10.3	P
5	Measurement of Temperature Coefficients.	10.4	P
6	Measurement of NOCT	10.5	P
7	Performance at STC and NOCT	10.6	P
8	Performance at low irradiance.	10.7	P
9	Outdoor exposure test	10.8	P



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10	Hot-spot endurance test	10.9	P
11	UV preconditioning	10.10	P
12	Thermal cycling test	10.11	P
13	Humidity freeze test	10.12	P
14	Damp heat test	10.13	P
15	Robustness of termination test	10.14	P
16	Wet leakage current test	10.15	P
17	Mechanical load test	10.16	P
18	Hail test	10.17	P
19	Bypass diode thermal test	10.18	P

General Information:

1. The conformity certificates of components/parts wherever applicable are verified to ensure complete testing of products under test and details regarding harmonized IEC standards (where IEC standards are not available) are also provided in the list of components/parts (description of module construction) wherever applicable.

CONCLUSION:

1. Sample meets all relevant requirements of IS 14286: 2010
2. Sample fails to meet the following test requirements.

I, hereby undertake that the verdict stated in the test reports for all the test matches with the test results. The sample meets/~~does not~~ meets all relevant requirements stated above of IS 14286: 2010.

(FOR HI PHYSIX LABORATORY INDIA PVT. LTD.)


Date: 01/06/2023

(Signature of Authorized person with Stamp)



TEST REPORT	
IS 14286: 2010 First Revision	
Crystalline Silicon Terrestrial Photovoltaic (PV) Modules	
- Design Qualification and Type Approval	
Discipline:	ULR-TC510023000000790F
Group:	Electronics Testing Miscellaneous Products
	
Report Reference No:	HPLI/Test/2303080201/01
Date of issue:	01/06/2023
Total number of pages	70
Testing Laboratory:	Hi Physix Laboratory India Private Limited.
Address	B-32/1/2 M.I.D.C, Ranjangaon Pune Maharashtra -412220.
Applicant's name	Icon Solar En Power Technologies Private Limited
Address	PH. NO.09, GRAM DIGHARI MANDIR HASAUD, TEH ARANG CHHATTISGARH RAIPUR - 492001
Test specification:	
Standard	IS 14286: 2010
Test procedure	Compliance Report.
Non-standard test method	N/A
Test Report Form No.	IS 14286_V1.0
Test Report Form Originator:	BIS
Master TRF	Dated: 19.02.2018
Test item description:	Crystalline silicon terrestrial photovoltaic (PV) modules.
Trade Mark:	
Manufacturer:	Icon Solar En Power Technologies Private Limited
Factory	PH. NO.09, GRAM DIGHARI MANDIR HASAUD, TEH ARANG CHHATTISGARH RAIPUR – 492001

[FOR HI PHYSIX LABORATORY INDIA PVT. LTD.]

 (Chief Technical Manager)



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Model/Type reference	<p>ISEN590 (Representative Model).</p> <p>ISEN590 (Tested Model)</p> <p>156 cells (Cut Cell): ISEN585 , ISEN580 , ISEN575 , ISEN570 , ISEN565 , ISEN560 (Series models).</p> <p>144 cells (Cut Cell): ISEN555 , ISEN550 , ISEN545 , ISEN540 , ISEN535 , ISEN530, ISEN525, ISEN520 (Series models).</p> <p>132 cells (Cut Cell): ISEN510 , ISEN500 (Series models).</p> <p>120 cells (Cut Cell): ISEN460 , ISEN455 , ISEN450 , ISEN445 , ISEN440 , ISEN435, ISEN430, ISEN425, ISEN420 (Series models).</p> <p>108 cells (Cut Cell): ISEN410 , ISEN405 , ISEN400 , ISEN395 , ISEN390 , ISEN385, ISEN380 (Series models).</p>
Ratings	See copy of marking plate on page no 5

FOR HI PHYSIX LABORATORY INDIA PVT. LTD.



Ashutosh Pathak
(Chief Technical Manager)



TC-5100

Testing procedure and testing location:		
<input checked="" type="checkbox"/> Testing Laboratory:		
Testing location/ address	Hi Physix Laboratory India Private Limited B-32/1/2 M.I.D.C, Ranjangaon Pune Maharashtra -412220	
Tested by (name + signature)	Santosh Tawhare (Testing Engineer)	
Approved by (name + signature) ..	Ashutosh Pathak (Chief Technical Manager)	 FOR HI PHYSIX LABORATORY INDIA PVT. LTD. (Chief Technical Manager)
Issued by (name + signature)	K. K. Jayaswal (Chief Quality Manager)	