



URS PRODUCTS AND TESTING PRIVATE LIMITED

A-29, Sector-5, Noida-201301
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CIN NO U21014UP1987PTC008956



SUMMARY OF TEST REPORT

TEST REPORT NO: SC24SPI00463_1

DATE: 11/06/2024

(Total Number of Pages in Test Report: 35)

TEST FORMAT AS PER IS/IEC 61730-1:2004 (First Edition) + A1:2017 + A2:2017

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

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

3. Model: ISEN620N-TOP

Series Model:

156 Half cut cell family with system voltage 1500V

ISEN615N-TOP, ISEN610N-TOP, ISEN605N-TOP, ISEN600N-TOP

144 Half cut cell family with system voltage 1500V

ISEN590N-TOP, ISEN585N-TOP, ISEN580N-TOP, ISEN575N-TOP, ISEN570N-TOP, ISEN565N-TOP, ISEN560N-TOP

132 Half cut cell family with system voltage 1500V

ISEN540N-TOP, ISEN535N-TOP, ISEN530N-TOP, ISEN525N-TOP, ISEN520N-TOP

120 Half cut cell family with system voltage 1500V

ISEN500N-TOP, ISEN495N-TOP, ISEN490N-TOP, ISEN485N-TOP, ISEN480N-TOP, ISEN475N-TOP, ISEN470N-TOP,
ISEN465N-TOP, ISEN460N-TOP

108 Half cut cell family with system voltage 1500V

ISEN440N-TOP, ISEN435N-TOP, ISEN430N-TOP, ISEN425N-TOP, ISEN420N-TOP

4. Model differences provided (if applicable): Yes

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



ULR-TC646824100003978F

Discipline-Electronics Testing

Group-Miscellaneous product



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6. Test Results:

SL.	TEST REQUIREMENT	CLAUSE	VERDICT
1	Application Classes	3	P
2	Construction Requirements	4	P
3	Polymeric Materials	5	P
4	Internal Wiring And Current-Carrying Parts	6	P
5	Connections	7	P
6	Bonding And Grounding	8	P
7	Creepage and clearance distances	9	P
8	Field Wiring Compartments With Covers	10	P
9	Marking	11	P
10	Requirements for supplied documents	12	P

General Information:

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/IEC 61730-1:2004 (First Edition) + A1:2017 + A2:2017
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/IEC61730-1:2004 (First Edition) + A1:2017 + A2:2017.

Date: 11/06/2024



(Signature of Authorized person with Stamp)

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TEST REPORT	
IS/IEC 61730-1:2004 +A1:2017+A2:2017	
PV Module Safety Qualification Part 1: Requirements for construction	
Report Reference No:	SC24SPI00463_1
Date of issue:	11/06/2024
Total number of pages:	35
Testing Laboratory:	URS PRODUCTS AND TESTING PRIVATE LIMITED
Address:	A-29, Sector 5, Noida-201301, India
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/IEC 61730-1:2004+A1:2017+A2:2017
Test procedure.....:	Compliance Report
Non-standard test method.....:	N/A
Test Report Form No:	IS/IEC61730-1_V1.0
Test Report Form(s) Originator:	BIS
Master TRF:	Dated 19.02.2018
Test item description:	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules (Si Wafer Based)
Trade Mark:	
Manufacturer:	Icon Solar En Power Technologies Private Limited
Address:	PH. NO.09, GRAM DIGHARI MANDIR HASAUD, TEH ARANG CHHATTISGARH RAIPUR 492001
Model/Type reference:	Model Tested: ISEN620N-TOP Series Model: 156 Half cut cell family with system voltage 1500V ISEN615N-TOP, ISEN610N-TOP, ISEN605N-TOP, ISEN600N-TOP 144 Half cut cell family with system voltage 1500V ISEN590N-TOP, ISEN585N-TOP, ISEN580N-TOP, ISEN575N-TOP, ISEN570N-TOP, ISEN565N-TOP, ISEN560N-TOP 132 Half cut cell family with system voltage 1500V ISEN540N-TOP, ISEN535N-TOP, ISEN530N-TOP, ISEN525N-TOP, ISEN520N-TOP 120 Half cut cell family with system voltage 1500V ISEN500N-TOP, ISEN495N-TOP, ISEN490N-TOP, ISEN485N-TOP, ISEN480N-TOP, ISEN475N-TOP, ISEN470N-TOP, ISEN465N-TOP, ISEN460N-TOP 108 Half cut cell family with system voltage 1500V ISEN440N-TOP, ISEN435N-TOP, ISEN430N-TOP, ISEN425N-TOP, ISEN420N-TOP
Rating:	See copy of Marking label and General product information.

TRF No. IS/IEC61730-1_V1.0



ULR-TC646824100003978F

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Group-Miscellaneous product



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Testing procedure and testing location:		
<input checked="" type="checkbox"/> Testing Laboratory:	URS PRODUCTS AND TESTING PRIVATE LIMITED	
Testing location/ address.....:	A-29, Sector 5, Noida-201301, India	
Tested by (name + signature)	Abhishek Bhashker (Asst. Manager)	
Approved by (name + signature).: 	NILESH BALASAHEB ASWAR (Lab Manager)	
Issued by (name + signature) :	Paras Singh (General Manager Technical)	





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List of Attachments (including a total number of pages in each attachment)– Photographs and Specification of PV modules	
Summary of testing:	
Tests performed (name of test and test clause):	Testing location:
3 Application Classes	URS PRODUCTS AND TESTING PRIVATE LIMITED
4 Construction Requirements	A-29, Sector 5, Noida-201301, India
5 Polymeric Materials	
6 Internal Wiring and Current-Carrying Parts	
7 Connections	
8 Bonding and Grounding	
9 Creepage and Clearances Distances	
10 Field Wiring Compartments With Covers	
11 Marking	
12 Requirements For Supplied Documents	
The product fulfils the requirements of IS/IEC 61730-1:2004 +A1:2017+A2:2017	

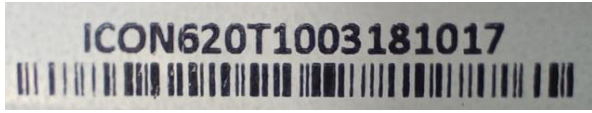
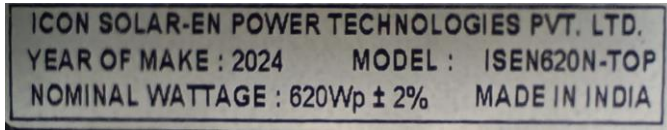


Copy of Marking Plate

(Model Tested: ISEN620N-TOP)

 ISEN-ICON <small>Manufacturing Tech Soln</small> ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD. Factory Address- PH No.09, Gram- Dighari, Mandir Hasaud, Teh Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755 <small>ELECTRICAL PARAMETER MEASURED AT 5TC</small>	Model No : ISEN620N-TOP Pmax (W) : 620 Wp ± 2% Voc (V) : 55.65 V Vmp (V) : 46.75 V Isc (A) : 14.06 A Imax (A) : 13.27 A	Dimension (L x W x H) : 2464 x 1134 x 35 mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire Safety Class : CLASS C	 WARNING <small>ELECTRICAL HAZARD</small> <small>www.urslabs.com</small>
	<small>ELECTRICAL PARAMETER MEASURED AT 5TC</small>		

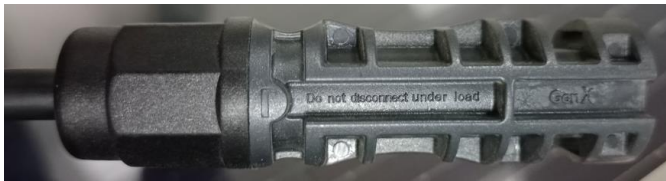
Marking inside the laminate



Polarity marking on Junction Box



Polarity marking on Connectors



The marking plate above represents all models covered by this report. See "General product information" for electrical ratings for all models.



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(Series Model: ISEN615N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN615N-TOP Pmax (W) : 615 Wp ±2% Voc (V) : 55.50 V Vm (V) : 46.48 V Isc (A) : 14.02 A Imax (A) : 13.24 A	Dimension (L x W x H) : 2464 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN615N-TOP
 NOMINAL WATTAGE: 615 Wp ± 2% MADE IN INDIA

ICON615T1003181001




(Series Model: ISEN610N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN610N-TOP Pmax (W) : 610 Wp ±2% Voc (V) : 55.35 V Vm (V) : 46.20 V Isc (A) : 13.99 A Imax (A) : 13.21 A	Dimension (L x W x H) : 2464 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN610N-TOP
 NOMINAL WATTAGE: 610 Wp ± 2% MADE IN INDIA

ICON610T1003181001




(Series Model: ISEN605N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN605N-TOP Pmax (W) : 605 Wp ±2% Voc (V) : 55.22 V Vm (V) : 45.92 V Isc (A) : 13.95 A Imax (A) : 13.18 A	Dimension (L x W x H) : 2464 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN605N-TOP
 NOMINAL WATTAGE: 605 Wp ± 2% MADE IN INDIA

ICON605T1003181001



(Series Model: ISEN600N-TOP)





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 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN600N-TOP Pmax (W) : 600 Wp ±2% Voc (V) : 55.01V Vm (V) : 45.66 V Isc (A) : 13.91 A Imax (A) : 13.15 A	Dimension (L x W x H) : 2464 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC



www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN600N-TOP
 NOMINAL WATTAGE: 600 Wp ± 2% MADE IN INDIA

ICON600T1003181001



(Series Model: ISEN590N-TOP)


 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN590N-TOP Pmax (W) : 590 Wp ±2% Voc (V) : 51.88 V Vm (V) : 44.05 V Isc (A) : 14.18 A Imax (A) : 13.40 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC



www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN590N-TOP
 NOMINAL WATTAGE: 590 Wp ± 2% MADE IN INDIA

ICON590T1003181001



(Series Model: ISEN585N-TOP)


 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN585N-TOP Pmax (W) : 585 Wp ±2% Voc (V) : 51.74 V Vm (V) : 43.80 V Isc (A) : 14.14 A Imax (A) : 13.37 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN585N-TOP
 NOMINAL WATTAGE: 585 Wp ± 2% MADE IN INDIA

ICON585T1003181001



(Series Model: ISEN580N-TOP)







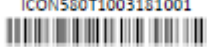





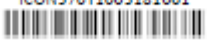
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CIN NO U21014UP1987PTC008956



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 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN580N-TOP Pmax (W) : 580 Wp ±2% Voc (V) : 51.60 V Vm (V) : 43.56 V Isc (A) : 14.10 A Imax (A) : 13.33 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
ELECTRICAL PARAMETER MEASURED AT STC		www.iconsolar-en.com	
ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD. YEAR OF MAKE : 2024 MODEL : ISEN580N-TOP NOMINAL WATTAGE: 580 Wp ± 2% MADE IN INDIA ICON580T1003181001 			
(Series Model: ISEN575N-TOP)			
 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN575N-TOP Pmax (W) : 575 Wp ±2% Voc (V) : 51.46 V Vm (V) : 43.43 V Isc (A) : 14.06 A Imax (A) : 13.29 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
ELECTRICAL PARAMETER MEASURED AT STC		www.iconsolar-en.com	
ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD. YEAR OF MAKE : 2024 MODEL : ISEN575N-TOP NOMINAL WATTAGE: 575 Wp ± 2% MADE IN INDIA ICON575T1003181001 			
(Series Model: ISEN570N-TOP)			
 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN570N-TOP Pmax (W) : 570 Wp ±2% Voc (V) : 51.32 V Vm (V) : 43.07 V Isc (A) : 14.02 A Imax (A) : 13.25 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
ELECTRICAL PARAMETER MEASURED AT STC		www.iconsolar-en.com	
ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD. YEAR OF MAKE : 2024 MODEL : ISEN570N-TOP NOMINAL WATTAGE: 570 Wp ± 2% MADE IN INDIA ICON570T1003181001 			
(Series Model: ISEN565N-TOP)			





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CIN NO U21014UP1987PTC008956



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 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN565N-TOP Pmax (W) : 565 Wp ±2% Voc (V) : 51.19 V Vm (V) : 42.82 V Isc (A) : 13.99 A Imax (A) : 13.21 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN565N-TOP
 NOMINAL WATTAGE: 565 Wp ± 2% MADE IN INDIA

ICON565T1003181001

(Series Model: ISEN560N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN560N-TOP Pmax (W) : 560 Wp ±2% Voc (V) : 51.04 V Vm (V) : 42.60 V Isc (A) : 13.95 A Imax (A) : 13.15 A	Dimension (L x W x H) : 2278 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN560N-TOP
 NOMINAL WATTAGE: 560 Wp ± 2% MADE IN INDIA

ICON560T1003181001

(Series Model: ISEN540N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN540N-TOP Pmax (W) : 540 Wp ±2% Voc (V) : 49.96 V Vm (V) : 40.02 V Isc (A) : 14.36 A Imax (A) : 13.50 A	Dimension (L x W x H) : 2094 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
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ELECTRICAL PARAMETER MEASURED AT STC

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN540N-TOP
 NOMINAL WATTAGE: 540 Wp ± 2% MADE IN INDIA

ICON540T1003181001





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(Series Model: ISEN535N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN535N-TOP Pmax (W) : 535 Wp ±2% Voc (V) : 49.80 V Vm (V) : 39.88 V Isc (A) : 14.32 A Imax (A) : 13.42 A	Dimension (L x W x H) : 2094 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN535N-TOP
 NOMINAL WATTAGE: 535 Wp ± 2% MADE IN INDIA

ICON535T1003181001




(Series Model: ISEN530N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN530N-TOP Pmax (W) : 530 Wp ±2% Voc (V) : 46.63 V Vm (V) : 39.64 V Isc (A) : 14.27 A Imax (A) : 13.38 A	Dimension (L x W x H) : 2094 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN530N-TOP
 NOMINAL WATTAGE: 530 Wp ± 2% MADE IN INDIA

ICON530T1003181001




(Series Model: ISEN525N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN525N-TOP Pmax (W) : 525 Wp ±2% Voc (V) : 46.47 V Vm (V) : 39.38 V Isc (A) : 14.23 A Imax (A) : 13.34 A	Dimension (L x W x H) : 2094 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN525N-TOP
 NOMINAL WATTAGE: 525 Wp ± 2% MADE IN INDIA

ICON525T1003181001






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(Series Model: ISEN520N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN520N-TOP Pmax (W) : 520 Wp ±2% Voc (V) : 46.30 V Vm (V) : 39.27 V Isc (A) : 14.19 A Imax (A) : 13.25 A	Dimension (L x W x H) : 2094 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

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ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN520N-TOP
 NOMINAL WATTAGE: 520 Wp ± 2% MADE IN INDIA

ICON520T1003181001

(Series Model: ISEN500N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN500N-TOP Pmax (W) : 500 Wp ±2% Voc (V) : 43.37 V Vm (V) : 36.42 V Isc (A) : 14.46 A Imax (A) : 13.73 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN500N-TOP
 NOMINAL WATTAGE: 500 Wp ± 2% MADE IN INDIA

ICON500T1003181001

(Series Model: ISEN495N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN495N-TOP Pmax (W) : 495 Wp ±2% Voc (V) : 43.21 V Vm (V) : 36.22 V Isc (A) : 14.40 A Imax (A) : 13.67 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

www.iconsolar-en.com

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN495N-TOP
 NOMINAL WATTAGE: 495 Wp ± 2% MADE IN INDIA

ICON495T1003181001





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(Series Model: ISEN490N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN490N-TOP Pmax (W) : 490 Wp ±2% Voc (V) : 43.05 V Vm (V) : 36.01 V Isc (A) : 14.34 A Imax (A) : 13.61 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN490N-TOP
 NOMINAL WATTAGE: 490 Wp ± 2% MADE IN INDIA

ICON490T1003181001




(Series Model: ISEN485N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN485N-TOP Pmax (W) : 485 Wp ±2% Voc (V) : 42.89 V Vm (V) : 35.80 V Isc (A) : 14.28 A Imax (A) : 13.55 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN485N-TOP
 NOMINAL WATTAGE: 485 Wp ± 2% MADE IN INDIA

ICON485T1003181001




(Series Model: ISEN480N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN480N-TOP Pmax (W) : 480 Wp ±2% Voc (V) : 42.73 V Vm (V) : 35.59 V Isc (A) : 14.22 A Imax (A) : 13.49 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN480N-TOP
 NOMINAL WATTAGE: 480 Wp ± 2% MADE IN INDIA

ICON480T1003181001






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(Series Model: ISEN475N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN475N-TOP Pmax (W) : 475 Wp ±2% Voc (V) : 42.56 V Vm (V) : 35.37 V Isc (A) : 14.16 A Imax (A) : 13.43 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN475N-TOP
 NOMINAL WATTAGE: 475 Wp ± 2% MADE IN INDIA

ICON475T1003181001




(Series Model: ISEN470N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN470N-TOP Pmax (W) : 470 Wp ±2% Voc (V) : 42.40 V Vm (V) : 35.16 V Isc (A) : 14.11 A Imax (A) : 13.37 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN470N-TOP
 NOMINAL WATTAGE: 470 Wp ± 2% MADE IN INDIA

ICON470T1003181001




(Series Model: ISEN465N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN465N-TOP Pmax (W) : 465 Wp ±2% Voc (V) : 42.24 V Vm (V) : 34.94 V Isc (A) : 14.05 A Imax (A) : 13.31 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN465N-TOP
 NOMINAL WATTAGE: 465 Wp ± 2% MADE IN INDIA

ICON465T1003181001






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(Series Model: ISEN460N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN460N-TOP Pmax (W) : 460 Wp ±2% Voc (V) : 42.07 V Vm (V) : 34.72 V Isc (A) : 13.99 A Imax (A) : 13.25 A	Dimension (L x W x H) : 1908 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN460N-TOP
 NOMINAL WATTAGE: 460 Wp ± 2% MADE IN INDIA

ICON460T1003181001




(Series Model: ISEN440N-TOP)



 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN440N-TOP Pmax (W) : 440 Wp ±2% Voc (V) : 38.63 V Vm (V) : 32.98 V Isc (A) : 14.30 A Imax (A) : 13.35 A	Dimension (L x W x H) : 1722 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN440N-TOP
 NOMINAL WATTAGE: 440 Wp ± 2% MADE IN INDIA

ICON440T1003181001




(Series Model: ISEN435N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN435N-TOP Pmax (W) : 435 Wp ±2% Voc (V) : 38.50 V Vm (V) : 32.76 V Isc (A) : 14.22 A Imax (A) : 13.30 A	Dimension (L x W x H) : 1722 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN435N-TOP
 NOMINAL WATTAGE: 435 Wp ± 2% MADE IN INDIA

ICON435T1003181001






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(Series Model: ISEN430N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN430N-TOP Pmax (W) : 430 Wp ±2% Voc (V) : 38.42 V Vm (V) : 32.49 V Isc (A) : 14.13 A Imax (A) : 13.25 A	Dimension (L x W x H) : 1722 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN430N-TOP
 NOMINAL WATTAGE: 430 Wp ± 2% MADE IN INDIA

ICON430T1003181001

(Series Model: ISEN425N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN425N-TOP Pmax (W) : 425Wp ±2% Voc (V) : 38.29 V Vm (V) : 32.23 V Isc (A) : 14.05 A Imax (A) : 13.20 A	Dimension (L x W x H) : 1722 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN425N-TOP
 NOMINAL WATTAGE: 425 Wp ± 2% MADE IN INDIA

ICON425T1003181001

(Series Model: ISEN420N-TOP)

 Icon Solar-En Power Technologies Private Limited Factory Address- PH No. 09, Gram-Dighari, Mandir Hasaud, Teh - Arang, Raipur 492001, Chhattisgarh, India Tel: +91 771-4065755	Model No : ISEN420N-TOP Pmax (W) : 420 Wp ±2% Voc (V) : 38.16 V Vm (V) : 31.96 V Isc (A) : 13.98 A Imax (A) : 13.15 A	Dimension (L x W x H) : 1722 x 1134 x 35mm System Voltage : 1500 V Series Fuse Rating : 30 A Application Class : CLASS A Safety Class : CLASS II Fire safety Class : CLASS C	 WARNING ELECTRICAL HAZARD
	ELECTRICAL PARAMETER MEASURED AT STC		

ICON SOLAR-EN POWER TECHNOLOGIES PVT. LTD.
 YEAR OF MAKE : 2024 MODEL : ISEN420N-TOP
 NOMINAL WATTAGE: 420 Wp ± 2% MADE IN INDIA

ICON420T1003181001





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Test item particulars.....:	Crystalline Silicon Terrestrial Photovoltaic (PV) Modules (Si Wafer Based)
Accessories and detachable parts included in the evaluation.....:	N/A
Mounting system used.....:	As per Installation Manual
Other options included.....:	N/A
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P(Pass)
- test object does not meet the requirement.....:	F(Fail)
Abbreviations used in the report:	
Pmax – Maximum power	PD – Partial Discharge
Vpm – Maximum power voltage	RTI/RTE – Relative Thermal Endurance Index
Ipm – Maximum power current	STC – Standard Test Conditions
Isc – Short circuit current	TC – Thermal Cycling
Voc – Open circuit voltage	CTI – Comparative Tracking Index
FF –Fill factor	MST – Module Safety Test
Testing.....:	
Date of receipt of test item.....:	30/03/2024
Date(s) of performance of tests.....:	03/04/2024 to 11/06/2024

General remarks:	
<p>"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.</p> <p>Throughout this report a [] comma/ [X] point is used as the decimal separator.</p> <p>This Test Report Form is intended for the investigation of PV modules in accordance with IS/IEC 61730-1:2004 +A1:2017+A2:2017. It can only be used together with IS/IEC 61730-2:2004 +A1:2017 Test Report.</p>	
Name and address of factory (ies).....:	Icon Solar En Power Technologies Private Limited PH. NO.09, GRAM DIGHARI MANDIR HASAUD, TEH ARANG CHHATTISGARH RAIPUR 492001





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General product information:	
PV module type reference.....:	ISEN620N-TOP
Product Electrical Ratings at STC	
Nominal maximum power (Pmax).....:	620W
Nominal open circuit voltage at (Voc).....:	55.65V
Nominal short circuit current at (Isc).....:	14.06A
Nominal maximum power voltage (Vpm).....:	46.75V
Nominal maximum power current (Ipm).....:	13.27A
Product Safety Ratings	
Maximum systems operating voltage.....:	1500V
Maximum over-current protection rating.....:	30A
Safety Application class.....:	Class A
Safety class in accordance with IEC 61140.....:	Class II
Fire safety class.....:	Class C
Recommended maximum series/parallel module configurations.....:	156 half cut cells family: 26 no. 144 half cut cells family: 27 no. 132 half cut cells family: 29 no. 120 half cut cells family: 32 no. 108 half cut cells family: 36 no.
Scope of Module Safety Qualification Testing:	
<input checked="" type="checkbox"/> Initial module safety qualification	
<input type="checkbox"/> Extension of module safety qualification original test report ref. no.....:	N/A
Model differences and modification:	
<input type="checkbox"/> Change in cell technology	<input type="checkbox"/> Change in cell interconnect materials/technique
<input type="checkbox"/> Modification to encapsulation system	<input type="checkbox"/> Modification to junction box/el. Termination
<input type="checkbox"/> Modification to superstrate	<input type="checkbox"/> Change in el. circuit of an identical package
<input type="checkbox"/> Modification to backsheet/substrate	<input type="checkbox"/> Higher or lower output by 10 %
<input type="checkbox"/> Modification to frame/mounting structure	<input type="checkbox"/> Increase in module size
<input type="checkbox"/> Removal of frame	

- Note (1)** Use the “General product information” field to give any information on model differences within a product type family covered by the test report.
- Note (2)** Use the “General product information” field to describe the range of electrical and safety ratings, if the TRF covers a type family of modules.
- Note (3)** Use Annex 1 to list the used materials and components of the module (manufacturer/supplier and type reference)





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Similarities & difference between representative model and series/family models:									
Sr. No	Series/Family Models	Electrical Specifications						Model difference	Model similarities
		Maximum System Voltage, (Vdc)	Open Circuit Voltage @STC/Voc (Vdc)	Rated Voltage @ STC/ Vmp (V dc)	Short Circuit Current @ STC/Isc (A)	Rated Current @ STC/Imp (A)	Rated Maximum Power at STC, (Watts)		
1.	ISEN620N-TOP (Representative Model)	1500	55.65	46.75	14.06	13.27	620	<ul style="list-style-type: none"> • Pmp • Voc • Isc • Vmp • Imp <ul style="list-style-type: none"> • Maximum System Voltage • Cell technology • Encapsulation • Superstrate • Module size • Backsheet/ substrate • Frame and/or mounting structure • Junction box/electrical termination • Cell interconnect materials or technique • Electrical circuit of an identical package • Power output (by 10%) in the identical package including size and using the identical cell process. • Bypass diode 	
Series Models:									
2.	ISEN615N-TOP	1500	55.50	46.48	14.02	13.24	615		
3.	ISEN610N-TOP	1500	55.35	46.20	13.99	13.21	610		
4.	ISEN605N-TOP	1500	55.22	45.92	13.95	13.18	605		
5.	ISEN600N-TOP	1500	55.01	45.66	13.91	13.15	600		
6.	ISEN590N-TOP	1500	51.88	44.05	14.18	13.40	590		
7.	ISEN585N-TOP	1500	51.74	43.80	14.14	13.37	585		
8.	ISEN580N-TOP	1500	51.60	43.56	14.10	13.33	580		
9.	ISEN575N-TOP	1500	51.46	43.43	14.06	13.29	575		
10.	ISEN570N-TOP	1500	51.32	43.07	14.02	13.25	570		
11.	ISEN565N-TOP	1500	51.19	42.82	13.99	13.21	565		
12.	ISEN560N-TOP	1500	51.04	42.60	13.95	13.15	560		
13.	ISEN540N-TOP	1500	49.96	40.02	14.36	13.50	540		
14.	ISEN535N-TOP	1500	49.80	39.88	14.32	13.42	535		
15.	ISEN530N-TOP	1500	46.63	39.64	14.27	13.38	530		
16.	ISEN525N-TOP	1500	46.47	39.38	14.23	13.34	525		
17.	ISEN520N-TOP	1500	46.30	39.27	14.19	13.25	520		
18.	ISEN500N-TOP	1500	43.37	36.42	14.46	13.73	500		
19.	ISEN495N-TOP	1500	43.21	36.22	14.40	13.67	495		
20.	ISEN490N-TOP	1500	43.05	36.01	14.34	13.61	490		
21.	ISEN485N-TOP	1500	42.89	35.80	14.28	13.55	485		
22.	ISEN480N-TOP	1500	42.73	35.59	14.22	13.49	480		
23.	ISEN475N-TOP	1500	42.56	35.37	14.16	13.43	475		
24.	ISEN470N-TOP	1500	42.40	35.16	14.11	13.37	470		
25.	ISEN465N-TOP	1500	42.24	34.94	14.05	13.31	465		
26.	ISEN460N-TOP	1500	42.07	34.72	13.99	13.25	460		
27.	ISEN440N-TOP	1500	38.63	32.98	14.30	13.35	440		
28.	ISEN435N-TOP	1500	38.50	32.76	14.22	13.30	435		
29.	ISEN430N-TOP	1500	38.42	32.49	14.13	13.25	430		
30.	ISEN425N-TOP	1500	38.29	32.23	14.05	13.20	425		
31.	ISEN420N-TOP	1500	38.16	31.96	13.98	13.15	420		





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Clause	Requirement + Test	Result - Remark	Verdict
3	Application Classes		P
	The module has been evaluated for the following Application Class (Class A, B, C).....:	Class A	P
4	Construction Requirements		P
4.1	General requirements		P
4.1.1	It is stated that the module is able to operate under environmental condition type AB8 according to IEC 60364-5-51.	Satisfactory	P
4.1.2	The module/s is/are completely assembled when shipped from the factory.		P
	The module is provided in subassemblies.	No subassemblies	N/A
4.1.3	Incorporation of a module into the final assembly does not require any alteration of the module from its originally evaluated form. If YES, specific details describing necessary modification(s) are provided in the installation instructions.	No such alteration required	P
4.1.4	If a module must bear a definite relationship to another module, it is constructed to permit incorporation into the final assembly without the need for alteration.	Satisfactory	P
4.1.5	The construction of the module is such that ground continuity is not interrupted by installation.	The grounding connection is a separate connection on the frame and is not interrupted by installation.	P
4.1.6	Parts of the module are prevented from loosening or turning, if such loosening or turning may result in a risk of fire, electric shock, or injury to persons.	Satisfactory	P
4.1.7	Friction between surfaces is not used as the sole means to inhibit the turning or loosening of a part.	No such part	N/A
4.1.8	Any adjustable or movable structural part is provided with a locking device to reduce the likelihood of unintentional movement.	No adjustable or movable parts used	N/A





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Clause	Requirement + Test	Result - Remark	Verdict
4.2	Metal parts		P
4.2.1	Metals used in locations that are exposed to moisture shall not be employed alone or in combinations that could result in deterioration, such that the product would not comply with the requirements in this standard.	Only aluminum is used for frame	P
4.2.2	Iron or mild steel serving as a necessary part of the module but not exposed to the weather are plated, painted, or enamelled for protection against corrosion.		N/A
4.2.3	Simple sheared or cut edges and punched holes are not required to be additionally protected.	Punched holes on Aluminum frame	P
5	Polymeric Materials		P
5.1	General		P
	Polymeric materials serving as an enclosure for live metal parts	See Sub clause 5.2	—
	Polymeric materials serving as support for live metal parts	See Sub clause 5.3	—
	Polymeric materials serving as the outer surface for the module	See Sub clause 5.4	—
	Polymeric materials serving as superstrate or a substrate which provide rigid reinforcement or serve as the carrier for the active cells		—
	a) If the superstrate or substrate polymers are intended for contact with active cells	See Sub clause 5.3	—
	b) If the superstrate or substrate polymers are intended for use as an outer surface	See Sub clause 5.4	—
	c) If superstrate or substrate polymers are intended for both contact with active cells or other circuit elements and for use as the outer surface	See Sub clause 5.3 and 5.4	—
	Polymeric materials serving as barriers	See Sub clause 5.5	—
	All polymeric materials have a minimum relative thermal endurance index (electrical and mechanical, as defined by IEC 60216-5) of 20°C above the maximum measured operating temperature of said material in application, as measured during the Temperature Test MST 21 given in IS/IEC 61730-2.	Satisfactory	P





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Clause	Requirement + Test	Result - Remark	Verdict
5.2	Polymers serving as an enclosure for live parts		P
	Information is provided that polymers serving as an enclosure for live parts comply with:		—
	a) 5-V flammability rating (IEC 60695-11-20)	Satisfactory. Certified component used, see Annex 1.	P
	b) 5-V flammability rating, after water immersion and exposure of the end-product (IEC 60695-11-20)		P
	c) Ultraviolet radiation resistance (ANSI/UL 746C or ISO 4892-2)		P
	d) Minimum hot wire ignition rating of 30 (IEC 60695-2-20)		P
5.3	Polymers serving to support live parts		P
	Information is provided that polymers serving to support live parts comply with:		—
	a) Flammability classification and high-current arc ignition rating (IEC 60695-11-10) as given in Table 1 of IS/IEC 61730-1	Satisfactory. Certified component used, See Annex 1.	P
	b) Comparative Tracking Index (CTI) ≥ 250		N/A
	Comparative Tracking Index (IEC 60112).....:		—
	c) Inclined plane tracking rating of 1 h, using the time to track method at 2.5 kV (IEC 60587), if the maximum system operating voltage rating is in the range 600 V – 1500V.		N/A
	Maximum system operating voltage rating (V):		—
	d) Ultraviolet radiation resistance (ANSI/UL 746C or ISO 4892-2 or ISO 4892-3)	Satisfactory. Certified component used, see Annex 1.	P
5.4	Polymers serving as an outer surface		P
	Information is provided that polymeric substrates or superstrates used in the module have:		—
5.4.1	A relative thermal endurance index, both electrical and mechanical, as determined in accordance with IEC 60216 of at least 90°C.....:		P
	A relative thermal endurance index of at least 20 °C above the maximum measured operating temperature of the material as measured during the Temperature Test MST21 of IS/IEC 61730-2.		P
5.4.2	Polymeric materials that serve as the outer enclosure for a module that (1) is intended to be installed in a multi-module or -panel system or (2) have an exposed surface area greater than 1 m ² or a single dimension larger than 2 m, has a maximum flame spread index of 100 as determined under ASTM E 162-1990.....:		P
5.4.3	If exposed to direct sunlight in the application, the polymeric material has been evaluated for ultraviolet (UV) radiation resistance as determined in accordance with ANSI/UL 746C or ISO 4892-2.		P
5.4.4	Polymeric materials intended for use as a superstrate or substrate, without appropriate IEC insulation pre-qualification, comply with the requirements of the Partial Discharge Test MST 15 of IS/IEC 61730-2.		P
5.5	Polymers serving as barriers		P
	Insulation barriers are of adequate thickness and of a material appropriate for the application, as defined by IEC 61140	Satisfactory, See Annex 1	P
	Barriers or liners are held in place and are not adversely affected	Satisfactory	P





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5.6	Polymers serving as structural glazing materials		P
	Polymers serving as structural glazing materials comply with the requirements for safety glazing by material certification (ANSI Z97.1-93) or by testing in accordance with Module Breakage Test MST 32 of IS/IEC 61730-2.	See test result of MST 32 of IS/IEC 61730-2	P
Supplementary information: Nil			

6	Internal Wiring And Current-Carrying Parts		P
	A current-carrying part and wiring has the mechanical strength and current-carrying capacity necessary for its application.	Certified component used	P
6.1	Internal wiring		P
6.1.1	Wiring used within a module has an insulation rating for a minimum of 90 °C, with a gauge and voltage rating acceptable for the application as defined by the requirements of IEC 60189-2.	90°C, See Annex 1	P
6.1.2	The wiring of a module is located so that after installation of the module in the intended manner the insulation is not exposed to degrading effects of direct sunlight.	Satisfactory	P
6.2	Splices		N/A
	Splices are insulated equivalent to that required for the wiring involved.	No such construction	N/A
6.3	Mechanical securement		P
6.3.1	Joints or connections are mechanically secure and provide electrical contact without strain on connections and terminals.	All connections are mechanically secured	P
6.3.2	Uninsulated live parts are secured to its supporting surface so that they are prevented from turning or shifting in position.	No such construction	N/A
Supplementary information: Nil			





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Clause	Requirement + Test	Result - Remark	Verdict
7	Connections		P
7.1	Field connections - general requirements		P
7.1.1	The module shall be provided with wiring terminals, connectors, or leads to accommodate current- carrying conductors of the load circuit.	Provided.	P
7.1.2	Field connections are rated for exposure to direct sunlight as defined in Clause 5 of IS/IEC 61730-1.	Satisfactory. Certified component used. See Annex 1	P
	Field connections are not exposed to the degrading effects of direct sunlight.	Satisfactory. Certified component used. See Annex 1	P
7.2	Field wiring terminals		N/A
7.2.1	Field wiring terminal blocks are rated for the appropriate voltage and current for the application and constructed in compliance with IEC 60947-1.	No such terminals	N/A
7.2.2	Wiring terminals integral to the construction of the terminal enclosure comply with the following requirements:		N/A
7.2.2.1	Screws and nuts which clamp external conductors have a thread conforming with ISO261 or ISO262 (or comparable standards)		N/A
	The screws and nuts used for field wiring do not serve to fix any other component.		N/A
7.2.2.2	Terminal screws have a minimum nominal thread diameter as shown in Table 2 of IS/IEC 61730-1.		N/A
	Stud terminals are provided with nuts and washers.		N/A
7.2.2.3	Terminals are designed that they clamp the conductor between metal surfaces with sufficient contact pressure and without damage to the conductor.		N/A
	Terminals are designed or located that the conductor cannot slip out when the clamping screws or nuts are tightened.		N/A
	Terminals are fixed suitably when the means of clamping the conductor is tightened or loosened:		N/A
	a) the terminal itself does not work loose,		N/A
	b) internal wiring is not subjected to stress,		N/A
	c) creepage distances and clearances are not reduced below the values specified in clause 9 of IS/IEC 61730-1.		N/A
7.3	Connectors		P
7.3.1	The connector intended for use in the output circuit of the module is rated for the appropriate voltage and current, as per the requirements of the IEC 61984 series.	1500V, 40A, See Annex 1	P
	Connectors comply with the requirements of Clause 5 of IS/IEC 61730-1, with respect to flammability, comparative tracking index and relative thermal endurance index for the support of live parts.	Certified connector used	P
7.3.2	The connector has been appropriately evaluated for disconnect overload performance.	Marked as "Do not disconnect under load"	P





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7.3.3	Connectors intended for exposure to the outdoor environment are enclosed by material which complies with the following:		P
	a) UV resistance in accordance with the requirements of Clause 5.	Certified connector used	P
	b) Resistance to inclusion of water acc. to IEC 60529 (equivalent to IP55)	IP 68	P
	c) Steel ball impact test acc. to IEC 60065, sub clause 12.1.3 and Figure 8 with a vertical drop distance of 1 m.	Satisfactory	P
	d) Accessibility Test MST 11 of IS/IEC 61730-2	Certified connector used, See Annex 1. Also, see test result of IS/IEC 61730-2 MST 11.	P
7.3.4	Separable multi-pole connectors are polarised.		N/A
	If two or more separable connectors are provided, they are configured or arranged so that the other will not accept the mating connector for one.		N/A
7.3.5	For a connector incorporating a grounding member, the grounding member is the first to make and the last to break contact with the mating connector.	No grounding member in the connector	N/A
7.3.6	Connectors that can be separated without the use of a tool do not have accessible conductive parts, as determined under the Accessibility Test MST 11 of IS/IEC 61730-2.	Refer IS/IEC 61730-2 MST 11	P
7.4	Output lead or cables		P
	Leads extending from the module are rated for the appropriate system voltage, ampacity, wet locations, temperature and sunlight resistance.	1500V, Certified component used	P
Supplementary information: Nil			





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Clause	Requirement + Test	Result - Remark	Verdict
8	Bonding And Grounding		P
8.1	If accessible conductive parts of the module form a perimeter framing or mounting system, or if the module has a conductive surface area of greater than 10 cm ² accessible after installation, then the module has provisions for grounding.	Grounding provision provided on the module frame. Grounding position and the way to grounding are stated in the installation manual.	P
8.2	If the module is rated as safety class II and provided with provisions for functional grounding, the functional grounding is isolated from live parts by reinforced insulation (Sub clause 7.3.2.2 of IEC 61140).	Application Class A, Provides safety class II acc. to sec. 3.2	P
8.3	Each exposed conductive part of the module, that is assessable during normal operation, is bonded together, as verified by Ground Continuity Test MST 13 of IS/IEC 61730-2. Note: If conductive materials are used only as fasteners for installation and separated from the conductive components of the module by both appropriate insulation and spacings, they are not required to be bonded.	See test result of MST11 of IS/IEC 61730-2	P
8.4	Routine maintenance of the module does not involve breaking or disturbing the bonding path.	Bonding path is not disturbed by routine maintenance	P
	A bolt, screw, or other part used for bonding purposes is not intended for securing the complete device.	No such parts	N/A
8.5	Bonding is by a positive means, such as clamping, riveting, bolted or screwed connections, or welding, soldering or brazing.	Hole provided on the frame for bolt.	P
	The bonding connection penetrates all nonconductive coatings, such as paint, anodised coatings or vitreous enamel.		P
8.6	All joints in the bonding path are mechanically secure.	Bonding path is mechanically secured	P
8.7	If the bonding connection depends upon screw threads, two or more screws or two full threads of a single screw engage the metal.	No such construction	N/A
8.8	The diameter of the grounding screw or bolt is sized appropriately to the gauge of the bonding conductor, as per Table 2 of IS/IEC 61730-1.	Satisfactory (Diameter (Grounding hole): 4.81)	P
8.9	Ferrous metal parts in the grounding path are protected against corrosion by metallic or non-metallic coatings.	No such part.	N/A
8.10	The module has metal-to-metal multiple-bearing pin-type hinges. These are considered to be an acceptable means for bonding.	No hinges used	N/A





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Clause	Requirement + Test	Result - Remark	Verdict
8.11	A wiring terminal or bonding location is identified with the appropriate symbol (IEC 60417-5019) or has a green-coloured part.	Grounding symbol is marked near the location.	P
	No other terminal or location is identified in this manner.	Complied	P
8.12	If a marking is used to identify an equipment grounding terminal, it is located on or adjacent to the terminal, or on a wiring diagram affixed to the module or panel near the terminal.	Grounding symbol is marked near the location.	P
Supplementary information: Nil			

9	Creepage and clearance distances		P
9.1	Creepage and clearance distances between uninsulated live parts not of the same potential and between a live part and an accessible metal part, are not less than the values specified in Tables 3 and 4 of IS/IEC 61730-1.	Satisfactory (see below)	P
	Minimum measured creepage and clearance distances between field wiring terminals (mm).....:	N/A	—
	Minimum measured clearance distances between internal current carrying parts and accessible points (mm).....:	14.2mm	—
9.2	Creepage and clearance distances at field wiring terminals have been judged on module open-circuit voltage (Voc).....:		N/A
	If additional unmarked terminals exist in the terminal block, or if wiring terminals are marked specifically for grounding, the creepage and clearance distances have been judged on the basis of the maximum system operating voltage.		N/A
9.3	The spacings at a field-wiring terminal have been measured with and without wire connected to the terminal.		N/A
	If the terminal will properly accommodate it, and if the product was not marked to restrict its use, the wire is one size larger than that required, otherwise, the wire is of the required size.		N/A
9.4	Surfaces separated by a gap of 0.4 mm or less have been considered to be in contact with each other.		N/A
Supplementary information: Nil			





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Clause	Requirement + Test	Result - Remark	Verdict
10	Field Wiring Compartments With Covers		P
10.1	General		P
	If the module is designed for the application of a permanently attached wiring system by an installer in the field, it is to be provided with an enclosed wiring compartment.	Certified junction box used	P
10.2	Wall thickness		P
	If the wiring compartment is intended for the attachment of a field-applied permanent wiring system, the minimum wall thickness for the material complies with Table 5 of IS/IEC 61730-1.	Potted certified junction box used	P
10.3	Internal volume		P
	The internal volume for each intended conductor complies with the requirements of Table 6 of IS/IEC 61730-1.	Potted certified junction box used	P
	In the space comprising the minimum required volume, no enclosure dimension is less than 20 mm.	Potted certified junction box used	P
10.4	Openings		P
	All openings are provided with appropriate coverings, whose functions comply with the requirements of:		—
	Sub clause 5.2.1 of IS/IEC 61730-1		P
	Wet leakage Current test of Sub clause 10.20 of IS 16077:2013/IEC 61646:2008 or 10.17 of IS 14286 (2010).	Refer Cl. No.: 10.17, IS/IEC 14286	P
	Accessibility test MST 11 of IS/IEC 61730-2	Refer MST 11, IS/IEC 61730-2	P
	Coverings can only be removed by the use of a tool		P
10.5	Gaskets and seals		N/A
	Gaskets and seals do not deteriorate beyond limits during accelerated ageing, and are not used where they may be subject to flexing during normal operation.		N/A
10.6	Strain relief		P
	Any strain relief is provided so that stress on a lead intended for field connection, or otherwise likely to be handled in the field, including a flexible cord, is not transmitted to the electrical connection inside the module. Note: Mechanical securement means which comply with Sub clause 10.14 (Robustness of Terminations Test) of IS 14286 (2010) meet this requirement.	Refer MST 42, IS/IEC 61730-2	P





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Clause	Requirement + Test	Result - Remark	Verdict
10.7	Sharp edges		P
10.7.1	The enclosure is smooth and free from sharp edges, burrs, or the like that may damage insulation or conductors.	No sharp edges or burrs	P
10.7.2	The inner edges of conduit openings and knockouts are smooth and free from sharp edges, burrs, or the like that may damage insulation or conductors.	No conduit and Knockout	N/A
10.8	Conduit applications – Metallic		N/A
10.8.1	Any threaded hole in a metal wiring compartment intended for the connection of rigid metal conduit is reinforced to provide metal not less than 6.4 mm thick.		N/A
	Any threaded hole is tapered unless a conduit end stop is provided.		N/A
10.8.2	If threads for the connection of conduit are tapped all the way through a hole in a compartment wall, there are not less than 3.5 nor more than 5 threads in the metal and the construction was such that a conduit bushing can be attached as intended.		N/A
	The construction is such that a conduit bushing can be attached as intended.		N/A
10.8.3	If threads for the connection of conduit are not tapped all the way through a hole in a compartment wall, there are not less than 5 full threads in the metal and there was a smooth, rounded inlet hole for the conductors.		N/A
	There are smooth, rounded inlet holes for the conductors.		N/A
10.8.4	For a non-threaded opening in a metal wiring compartment intended to accommodate rigid metallic conduit, a flat surface of sufficient area is provided around the opening to accept the bearing surfaces of the bushing and lock washer.		N/A
10.8.5	Conduit complies with the Conduit bending test MST 33 of IS/IEC 61730-2.		N/A





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Clause	Requirement + Test	Result - Remark	Verdict
10.9	Conduit applications - Non-metallic		N/A
10.9.1	The thickness of sides, end walls, and bottom of a non-metallic wiring enclosure specified for conduit applications is not less than the values specified in Table 7 of IS/IEC61730-1.		N/A
10.9.2	A non-metallic wiring compartment intended to accommodate non-metallic conduit fulfils the following requirements:		—
	a) It has one or more unthreaded conduit- connection sockets;		N/A
	b) It has one or more threaded or unthreaded openings for a conduit-connection socket, or one or more knockouts that comply with the requirements of Knockout Test MST 44 of IS/IEC 61730-2;		N/A
	c) It complies with the Conduit Bending Test MST 33 of IS/IEC 61730-2, if intended for rigid non- metallic conduit.		N/A
10.9.3	Sockets for the connection of non-metallic conduit provide a positive end stop for the conduit.		N/A
	The socket diameters, the throat diameter at the entrance to the box, the socket depths, and the wall thickness of the socket are within the limits specified in the applicable conduit system.		N/A
10.9.4	A knockout or opening in a non-metallic wiring compartment intended to accommodate rigid non- metallic conduit complies with the dimensional requirements of the applicable conduit system.		N/A
Supplementary information: Nil			





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Clause	Requirement + Test	Result – Remark	Verdict
11	Marking		P
11.1	The module includes the following clear and indelible markings:		—
	Name, monogram or symbol of manufacturer	Icon Solar En Power Technologies Private Limited 	P
	Type or model number	ISEN620N-TOP	P
	Serial number	Marked	P
	Polarity of terminals or leads	Marked	P
	Maximum system voltage	1500Vdc	P
	Safety class (IEC 61140)	Class II	P
	The date and place of manufacture are marked on the module or are traceable from the serial number.	Satisfactory. See Marking label	P
11.2	The following additional markings are applied to either the module or placed into the instruction and installation data (required documents).		-
	Voltage at open-circuit	Provided	P
	Current at short-circuit	Provided	P
	Maximum over-current protection rating, as verified by the Reverse Current Overload Test MST 26 of IS/IEC 61730-2	Provided	P
	Recommended maximum series/parallel module configurations	See installation manual	P
	Application class	Class A	P
	All electrical data are given relative to Standard Test Conditions (1000 W/m2 @ 25 °C)	Provided	P
11.3	Connectors suitable only for field assembly of modules are marked “Do not disconnect under load”.	Provided	P
11.4	For modules with open-circuit voltage in excess of 50 V, and/or modules rated for maximum system voltage in excess of 50 V, a highly visible warning label regarding the shock hazard is applied near the means of connection to the module.	Warning provided on the label	P
Supplementary information: Nil			





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Clause	Requirement + Test	Result – Remark	Verdict
12	Requirements for supplied documents		P
12.1	The module or panel is supplied with installation instructions describing the methods of electrical and mechanical installation and the electrical ratings of the module.	Provided	P
	The instructions state the application class under which the module was qualified and any specific limitations required for that application class.	Provided	P
12.2	When the fire rating is dependent on a specific mounting structure, specific spacing, or specific means of attachment to the roof or structure, details of the specific parameter or parameters are included in the instructions.	Provided	P
12.3	The electrical installation instructions include a detailed description of the wiring method.	Provided	P
	The description of the wiring method includes the following information:		—
	Grounding method	Provided	P
	Size, type, and temperature rating of the conductors	Provided	P
	Recommended maximum series/parallel module configurations	Provided	P
	Type of over-current protection and diode bypassing to be used	Fuse rating 30A provided, Diode provided with the module	P
	Minimum cable diameters when the wiring method is cable	Provided in installation manual	P
12.4	Any limitations on wiring methods that apply to the wiring compartment or box	Cables are not interchangeable	P
	The mechanical installation instructions for roof mounting include:		—
	A statement indicating the minimum mechanical means for securing the module or panel to the roof	Provided	P
	A statement that the assembly is to be mounted over a fire resistant roof covering rated for the application (only for non-integral modules or panels)	Provided	P
	Indication of any slope required for maintaining a fire class rating		N/A
12.5	The installation instructions include a statement advising that artificially concentrated sunlight shall not be directed on the module or panel.	Provided	P
12.6	Assembly instructions are provided with a product shipped in subassemblies, and are detailed and adequate to the degree required to facilitate total assembly of the product.	No subassemblies	N/A
12.7	The installation instructions include the proposed statement given in this Sub clause (or equivalent) to allow for increased output of the module resulting from certain conditions of use.	Provided	P
Supplementary information: Nil			





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ANNEX 1: CONSTRUCTIONAL DETAILS

A1.1	MODULE TYPE/S	
	Model Tested: ISEN620N-TOP	
A1.2	MODULE DESIGN –DIMENSIONS	
	Module dimensions (L x W x H) [mm].....:	2464mm*1134mm*35mm (for 156 half cut cells family) 2278mm*1134mm*35mm (for 144 half cut cells family) 2094mm*1134mm*35mm (for 132 half cut cells family) 1908mm*1134mm*35mm (for 120 half cut cells family) 1722mm*1134mm*35mm (for 108 half cut cells family)
A1.3	SOLAR CELL	
	Cell type reference.....:	182M-10D11, N-type TOPCon Manufactured by JIETAI NEW ENERGY TECHNOLOGY CO., LTD.
	Cell dimensions L x W x T (± %) [mm].....:	91mmX182mm±0.5mm
	Cell thickness [µm].....:	130µm±13µm
	Cell area [cm ²].....:	165.62
A1.4	IDENTIFICATION OF MATERIALS	
	Front cover.....:	AR coating tempered glass, Thickness: 3.20mm, Manufactured by BOROSIL RENEWABLES LIMITED
	Rear cover.....:	PRESERV 1-300 TF, Thickness: 360µm, Manufactured by RENEWSYS INDIA PVT. LTD. Partial discharge: Project no.: 4789424469 tested by UL INDIA PVT LTD
	Encapsulation material.....:	CONCERVE 360, Thickness: 0.45-0.65±5% Manufactured by RENEWSYS INDIA PVT. LTD.
	Frame parts.....:	Alloy 6063 T6, 35mm*35mm Manufactured by: ALOM EXTRUSION LTD.
	Mounting parts.....:	As per installation manual
	Adhesive for frame.....:	Fasto SM30, RTV Silicone adhesive, Manufactured by: FASTO ADVANCE MATERIALS INDIA PVT. LTD.
	Cell connector.....:	Sn60/Pb40, 0.32mm, GEBA CABLES & WIRES INDIA PRIVATE LIMITED
	String connector.....:	Sn60/Pb40, 6x0.4(mm) & 4x0.4(mm), GEBA CABLES & WIRES INDIA PRIVATE LIMITED
	Fluxing agent.....:	952-S, Manufactured by: KESTER
	Junction box.....:	GXSB-01, Rated Voltage: 1500 V d.c., -40 to +85°C, IP 68, Manufactured by: GENX PV INDIA PRIVATE LIMITED. Certificate number B 115777 0002 Rev.-00 Tested by TUV SUD PRODUCT SERVICE GMBH
	Cable.....:	BIRLA UNISTAR 1Cx4.0 mm ² , Rated voltage: 1.8kv DC, Manufactured by: VINDHYA TELELINK LTD. Tested as per IS 17293: 2020 with CM/L no.: 8200162706
	Connector.....:	GXCO1, Rated Voltage: 1500V DC, Rated Current: 40A, -40 to +85°C, IP68, Manufactured by: GENX PV INDIA PRIVATE LIMITED.





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		Certificate No. B 115777 0001 Rev. 00 Tested by TUV SUD PRODUCT SERVICE GMBH.
	Bypass diode.....:	Type: MK6045; VRRM: 45V, IF(AV) : 60A, RθJC : 1.2, Tj : +200°C Manufactured by: Genx PV India Private Limited
	Potting material.....:	Fasto SP70, Silicone adhesive, Manufactured by: FASTO ADVANCE MATERIALS INDIA PVT. LTD.
	Adhesive for junction box.....:	Fasto SM30, RTV Silicone adhesive, Manufactured by: FASTO ADVANCE MATERIALS INDIA PVT. LTD.
	Additional material (e. g. fixing tape, insulation tape)....:	

A1.5	MODULE DESIGN - MINIMUM DISTANCES	
	Between cells (mm).....:	1.4mm
	Between cell and edge of laminate (mm).....:	13.5mm
	Between any current carrying part and edge of laminate (mm)....:	14mm

A1.6	MODULE DESIGN - ELECTRICAL CONFIGURATION	
	Total number of cells.....:	156 half cut cells family 144 half cut cells family 132 half cut cells family 120 half cut cells family 108 half cut cells family
	Serial-parallel connection of cells.....:	Series parallel connection
	Cells per bypass diode.....:	52 (for 156 half cut cells family) 48 (for 144 half cut cells family) 44 (for 132 half cut cells family) 40 (for 120 half cut cells family) 36 (for 108 half cut cells family)
	No. of bypass diodes.....:	3





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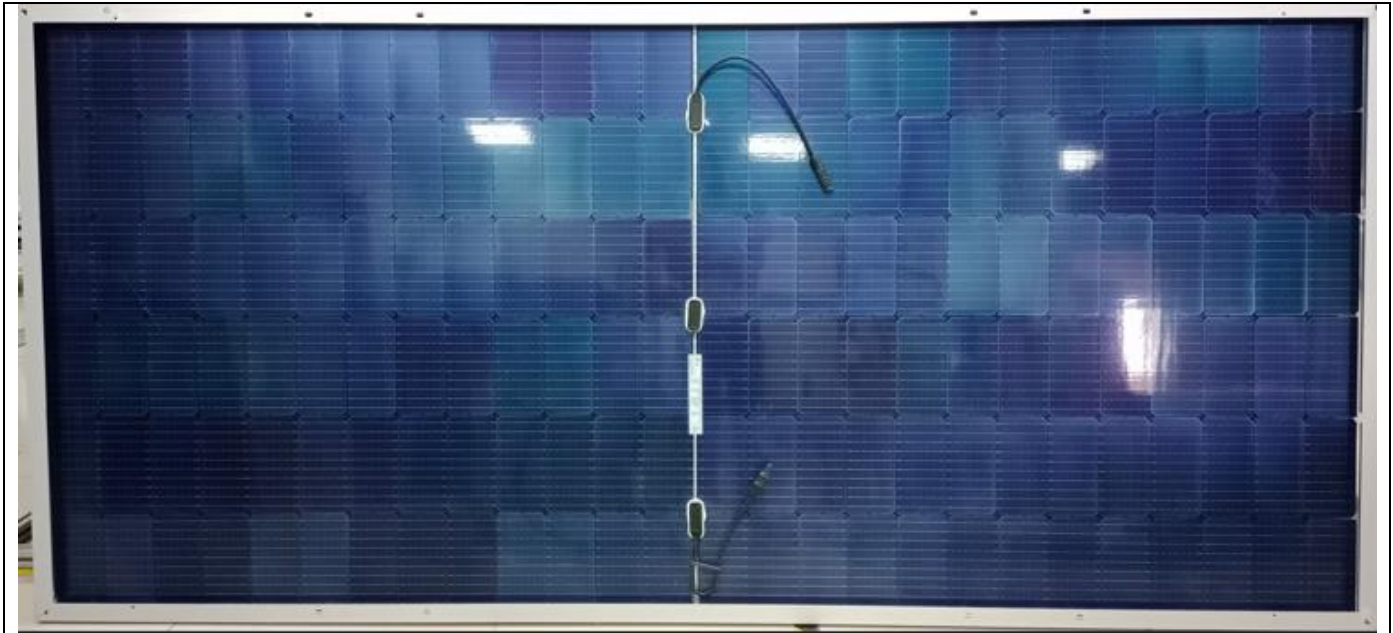
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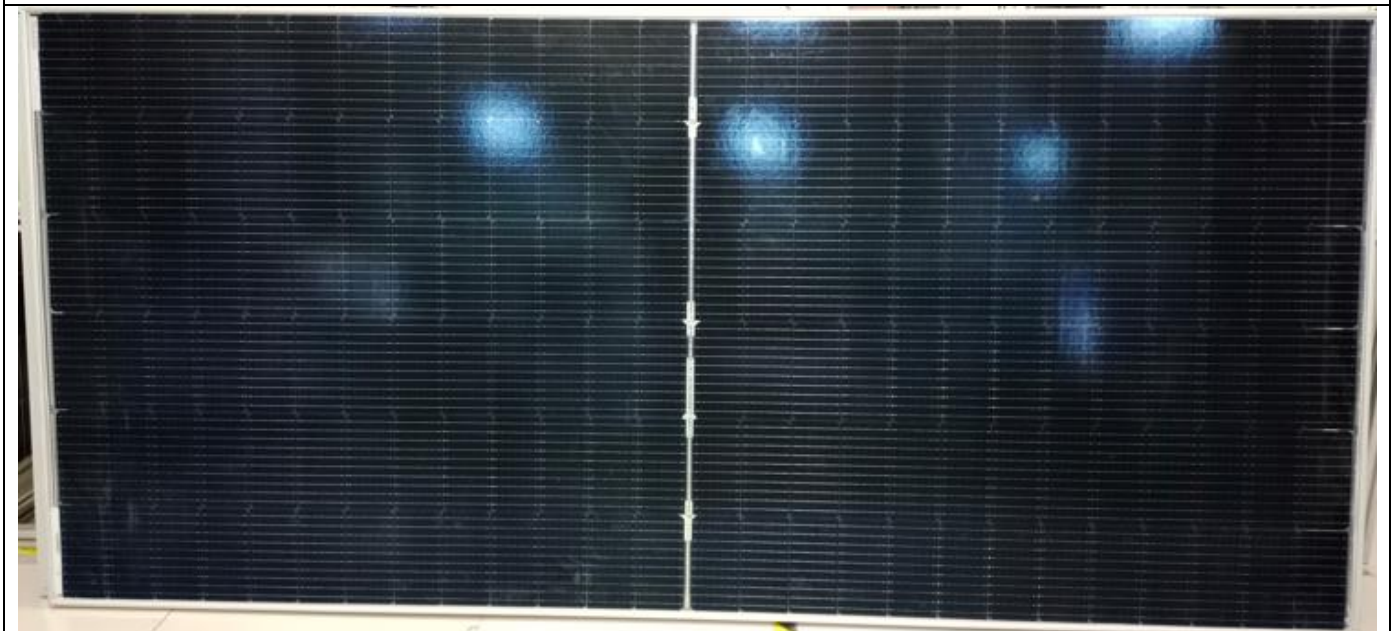
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ANNEX 2: PHOTOGRAPHS OF EUT



Rear view



Front view





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Junction Box closed view



Junction Box opened view



Negative Connector



Positive Connector





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ANNEX 3: SPECIFICATION OF PV MODULES

Model	System Voltage (V)	Electrical Rating					Fuse Rating (A)	Dimension			Total no. of cells (Half cut cells) (no.)	No of cells per by bypass diode (no.)
		Voc (V)	Vm (V)	Isc (A)	Im (A)	Pm (W)		L (mm)	W (mm)	H (mm)		
ISEN620N-TOP (Representative Model)	1500	55.65	46.75	14.06	13.27	620	30 A	2464	1134	35	156	52
ISEN615N-TOP	1500	55.50	46.48	14.02	13.24	615	30 A	2464	1134	35	156	52
ISEN610N-TOP	1500	55.35	46.20	13.99	13.21	610	30 A	2464	1134	35	156	52
ISEN605N-TOP	1500	55.22	45.92	13.95	13.18	605	30 A	2464	1134	35	156	52
ISEN600N-TOP	1500	55.01	45.66	13.91	13.15	600	30 A	2464	1134	35	156	52
ISEN590N-TOP	1500	51.88	44.05	14.18	13.40	590	30 A	2278	1134	35	144	48
ISEN585N-TOP	1500	51.74	43.80	14.14	13.37	585	30 A	2278	1134	35	144	48
ISEN580N-TOP	1500	51.60	43.56	14.10	13.33	580	30 A	2278	1134	35	144	48
ISEN575N-TOP	1500	51.46	43.43	14.06	13.29	575	30 A	2278	1134	35	144	48
ISEN570N-TOP	1500	51.32	43.07	14.02	13.25	570	30 A	2278	1134	35	144	48
ISEN565N-TOP	1500	51.19	42.82	13.99	13.21	565	30 A	2278	1134	35	144	48
ISEN560N-TOP	1500	51.04	42.60	13.95	13.15	560	30 A	2278	1134	35	144	48
ISEN540N-TOP	1500	49.96	40.02	14.36	13.50	540	30 A	2094	1134	35	132	44
ISEN535N-TOP	1500	49.80	39.88	14.32	13.42	535	30 A	2094	1134	35	132	44
ISEN530N-TOP	1500	46.63	39.64	14.27	13.38	530	30 A	2094	1134	35	132	44
ISEN525N-TOP	1500	46.47	39.38	14.23	13.34	525	30 A	2094	1134	35	132	44
ISEN520N-TOP	1500	46.30	39.27	14.19	13.25	520	30 A	2094	1134	35	132	44
ISEN500N-TOP	1500	43.37	36.42	14.46	13.73	500	30 A	1908	1134	35	120	40
ISEN495N-TOP	1500	43.21	36.22	14.40	13.67	495	30 A	1908	1134	35	120	40
ISEN490N-TOP	1500	43.05	36.01	14.34	13.61	490	30 A	1908	1134	35	120	40
ISEN485N-TOP	1500	42.89	35.80	14.28	13.55	485	30 A	1908	1134	35	120	40
ISEN480N-TOP	1500	42.73	35.59	14.22	13.49	480	30 A	1908	1134	35	120	40
ISEN475N-TOP	1500	42.56	35.37	14.16	13.43	475	30 A	1908	1134	35	120	40
ISEN470N-TOP	1500	42.40	35.16	14.11	13.37	470	30 A	1908	1134	35	120	40
ISEN465N-TOP	1500	42.24	34.94	14.05	13.31	465	30 A	1908	1134	35	120	40
ISEN460N-TOP	1500	42.07	34.72	13.99	13.25	460	30 A	1908	1134	35	120	40
ISEN440N-TOP	1500	38.63	32.98	14.30	13.35	440	30 A	1722	1134	35	108	36
ISEN435N-TOP	1500	38.50	32.76	14.22	13.30	435	30 A	1722	1134	35	108	36
ISEN430N-TOP	1500	38.42	32.49	14.13	13.25	430	30 A	1722	1134	35	108	36
ISEN425N-TOP	1500	38.29	32.23	14.05	13.20	425	30 A	1722	1134	35	108	36
ISEN420N-TOP	1500	38.16	31.96	13.98	13.15	420	30 A	1722	1134	35	108	36

.....End of report.....

