SOLEX ENERGY

30 YEARS OF ENERGY EXCELLENCE

Great Place To Work. Certified JAN 2025-JAN 2026 INDIA

WELCOME TO

SOLEX ENERGY LIMITED

Most Trusted
Solar Brand From India

Our Journey Began

A BRIGHT 30 YEARS AGO!

One Of The First PV Module Manufacturing Companies To Get Listed On The NSE Emerge Stock Exchange With

STOCK CODE: SOLEX

FY 1995-96
Established
Sun Energy Systems

FY 1998-99
Started Manufacturing
'Solar Water Heaters'

FY 2000-01
Started Manufacturing Of
"Solar Home Lighting
Systems"

FY 2007-08
Commenced PV Module
Manufacturing In Anand

FY 2014-15
Rebranded As
Solex Energy
Pvt. Ltd.

FY 2018-19
Listed on NSE Emerge
"Solex Energy Limited"

And Since Then, We've Been Sprinting Forward

FY 2021-22
Launch of Global
Giga Factory with
700 MW of Solar
Module Manufacturing
Capacity With
In-House
Reliability Test Lab

FY 2022-23
Launched Tapi Series,
High Efficiency MBB PV Modules
& Became The Trusted
OEM Partner For Global Brands

FY 2024-25
Capacity Addition To
1.5GW from 700 MW

FY 2025-26
Aiming Expansion
Of 4 GW Of PV Module
Manufacturing

FY 2026-27
Exploring Expansion
Into Solar Cell Manufacturing
For 2 GW

VISION 2030
Investment Of
1 Billion USD Towards
Advancing Solar Technology

Cell Manufacturing
Facility Upto 5 GW

Module Manufacturing
Capacity Upto 15 GW

EXISTING CAPACITY

1.5 GW

Infrastructure Primed For 4 GW Module Production
All Consolidated At A Single Location

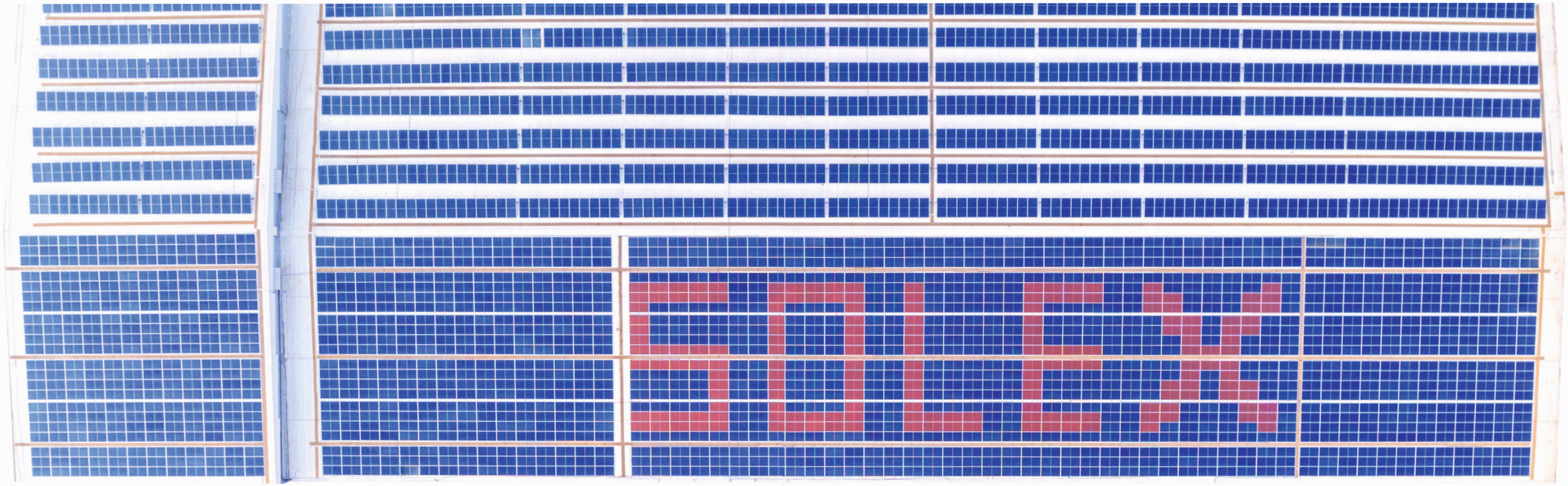
Our Factory Has Been Rated 'A' Grade By Leading Indian & International Audit Firms

Mark of Quality

GERMI
GUJARAT ENERGY RESEARCH AND MANAGEMENT INSTITUTE

USAID
FROM THE AMERICAN PEOPLE

CII



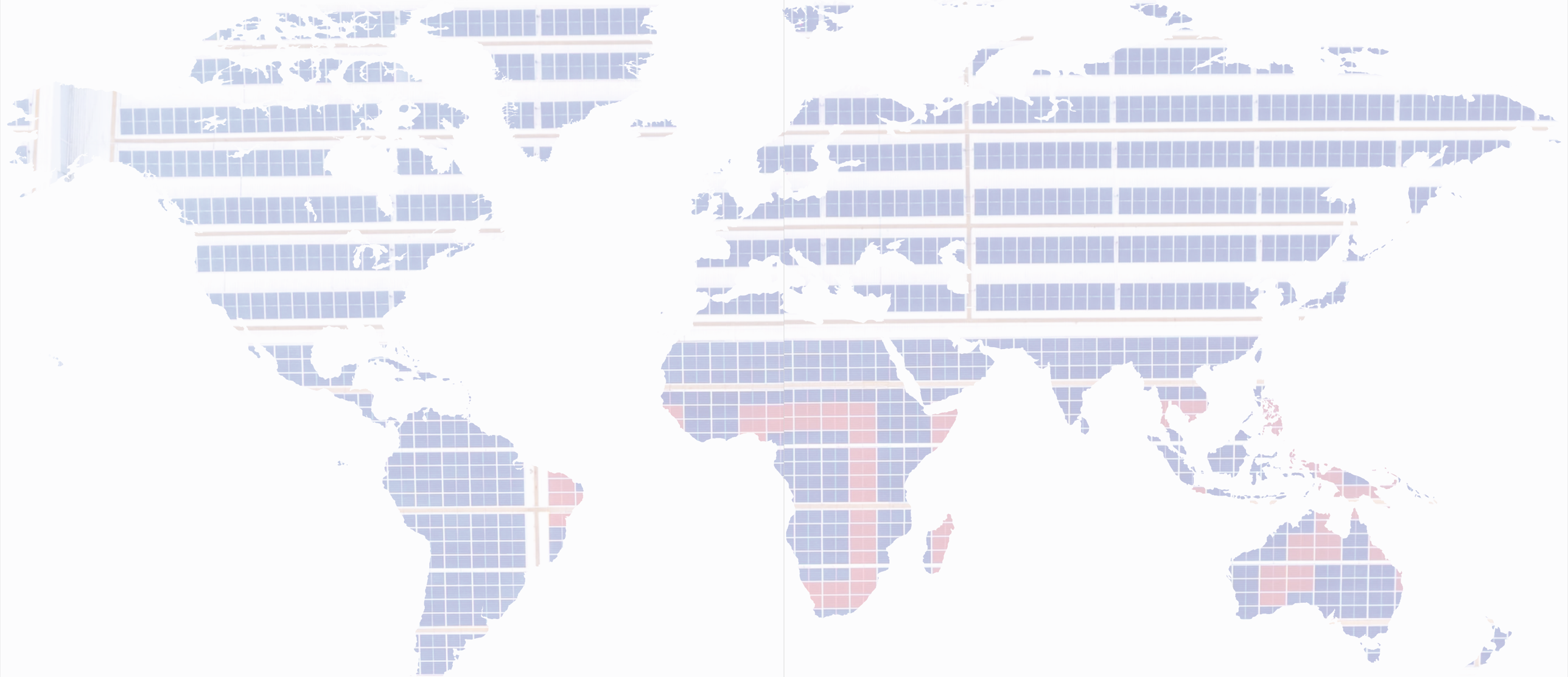
OPERATING IN

20+ STATES

AND SPANNING ACROSS

SEVERAL COUNTRIES

Trusted & Preferred OEM Partner For The Global Brands



At SOLEX,
Quality And Reliability Are Our Pride

CERTIFICATES

IEC 61215 - 1 & 2: 2021
IEC 61730 - 1 & 2: 2023
IEC 61701 : 2020
IEC 62804 : 2015
IEC 61853-1 & 2 : 2016
IEC 60068-2-68 : 1994
IEC 62716 : 2013
IEC 60904-1
IEC TS 63342 : 2022

CEC
California
CEC 300 : 2018

E531180
UL 61730-1 & 2 : 2017
Safety Qualification

ALMM LISTED

R-72008125
IS 14286 : 2010
IS/IEC 61730-1 : 2004
IS/IEC 61730-2 : 2004

TÜV NORD CERT GmbH
ISO 9001
ISO 14001
ISO 45001
tuev-nord.de

Powering Progress :

Our Impactful Solar Endeavour

5000+
Rooftops

40000+
Street Lights

16000+
Home Lighting Systems

2 MILLION+
Modules Shipped

In Addition To Numerous Projects Across Various Sectors

Key Clients

Amul The Taste of India

NDDB DAIRY SERVICES

TAJ

ओएनजीसी ONGC

दिवा दिलि वो गाहियका मः IIM AHMEDABAD

BANCO ALUMINIUM

Indian Oil Corporation Limited

बैंक ऑफ़ बड़ौदा Bank of Baroda

भारतीय विमानपत्तन प्राधिकरण AIRPORTS AUTHORITY OF INDIA

केनरा बैंक Canara Bank

भारतीय डाक India Post

GEDA ગુજરાત ઊર્જા વિકાસ એજન્સી GUJARAT ENERGY DEVELOPMENT AGENCY

torrent POWER

दक्षिण गुजरात विज कंपनी लिमिटेड DGVCL

PGVCL Paschim Gujarat Vij Company Limited

UGVCL Uttar Gujarat Vij Company Limited

JHARKHAND RENEWABLE ENERGY DEVELOPMENT AGENCY JREDA RANCHI

एनपीसीआईएल NPCIL ATOMS IN THE SERVICE OF THE NATION

BREDA Bihar Renewable Energy Development Agency
Empowering Bihar, Enriching People

उर्जा

CREDA Chhattisgarh State Renewable Energy Development Agency (Dept. of Energy, Govt. of Chhattisgarh)

DNHPDCL

Arunachal Pradesh Energy Development Agency (APEDA)
A State Govt. Agency of Govt. of Arunachal Pradesh
Itanagar - Arunachal Pradesh

Almer Vidyut Vitran Nigam Limited

DAMAN and DIU Electricity Dept.

MGVCL

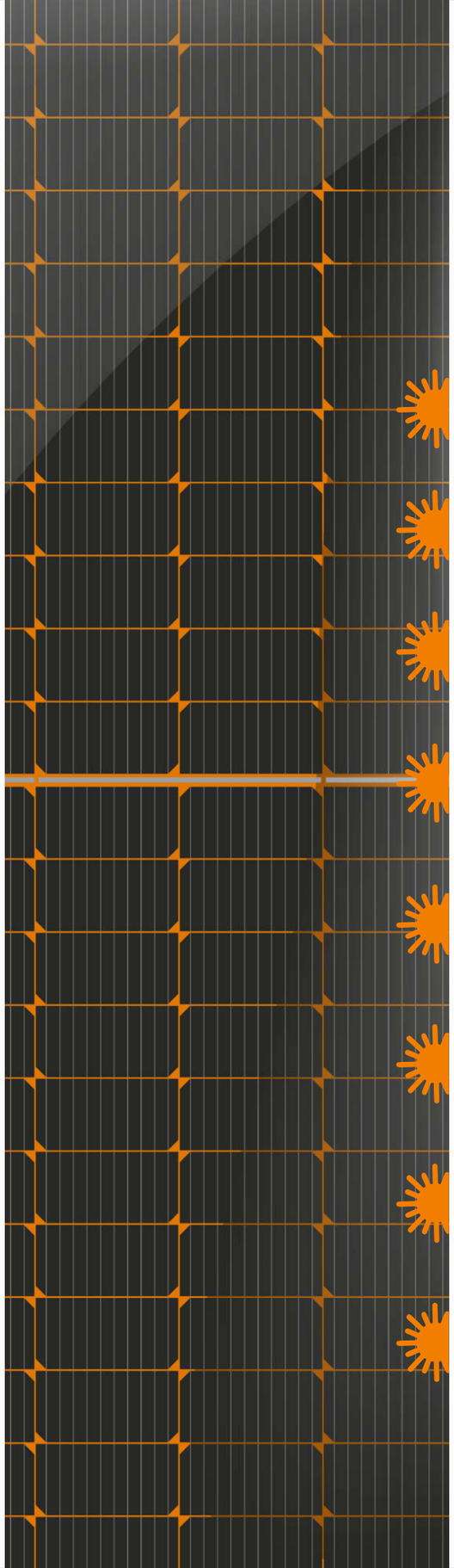
ERDA

महाबीज

Inorbit

We Embrace Inclusive Growth

61% of Our Team Comprises Members From Indigenous Communities, Reflecting Tribal Areas



Global Giga Factory

Employing Best Of Practices In The Industry

Lean Manufacturing:
Emphasizing the elimination of waste and continuous improvement in processes to maximise efficiency

Six Sigma:
Utilizing data-driven approaches to minimise defects and process variations, ensuring high product quality and consistency.

Total Quality Management (TQM)
Focuses on continuous quality improvement throughout all aspects of production, from design to delivery.

Advanced Manufacturing Technologies:
Incorporating cutting-edge technologies such as automation, robotics, MES, and AI (Artificial Intelligence) to enhance productivity, flexibility, and responsiveness.

Supply Chain Management:
involves optimizing supply chains to ensure timely delivery of raw materials, efficient production scheduling, and effective inventory management.

Environmental Sustainability:
SOLEX Factory running on clean energy minimises environmental impact, reduces waste, and promotes sustainability throughout manufacturing.

Strategic Partnerships and Collaboration:
Collaborating with suppliers, customers, and industry partners to drive innovation, share best practices, and create value across the supply chain.

Regulatory Compliance:
Ensuring compliance with industry regulations and standards to maintain product quality, safety, and ethical business practices.

Reliability Test Laboratory

An Integral Part Of Our Global Giga Factory

1. Adheres to the latest IEC 2021 standards, surpassing the industry standards of IEC 2016

2. Continuous testing spans 2,500 to 4,000 hours to ensure durability and reliability UL, TUV, and others

3. Testing adheres to standards on par with renowned laboratories such as UL, TUV, and others

4. Employs MES, AI, and other automation tools to monitor quality checks

5. Implements strict quality control at every stage of manufacturing

6. Incorporates feedback from continuous improvement programs to enhance product quality

7. Adopts sustainable and eco-friendly manu-facturing practices

8. Implements real-time data analysis to optimise production processes

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

Tapi®-R

595-625 Watt

India's First Rectangular Cell Module Powered By N-Type TOPCon Technology

The all-new era of efficiency and performance will set new standards in the industry

12-years product warranty

30-years linear performance warranty

Manufactured in an ISO 9001:2015, ISO 14001:2015,

ISO 45001:2018 Certified Facility.

IEC Certificates Certified**

BIS 14286 / IEC 61215-1 - 2 : 2021,

IEC 61730-1 & 2 : 2023 / UL 61730-1 & 2 : 2022

TUVNORD TÜV NORD CERT GmbH ISO 9001 ISO 14001 ISO 45001 tuev-nord.de

R-72008125

Module Efficiency Upto 23.14%

Cell Efficiency Upto 25.2%

Weather Resistant

Lower LCOE Higher Savings

Ideal For Large-Scale Projects

Super Performance & Reliability

** Certification Under Process

Module Image Is For Reference Only, Actual Appearance May Vary.

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TECHNICAL DATASHEET

TECHNICAL DATA FOR STGP132R210B16-AAA (595-625)

ELECTRICAL PARAMETER AT STC #1,2

MODULE TYPE	y rating – Pmax (Wp)	STGP132R210B16-AAA (595-625)					
Capacit	595	600	605	610	615	620	625
Power Tolerance (Wp)	0~4.99	0~4.99	0~4.99	0~4.99	0~4.99	0~4.99	0~4.99
Open circuit voltage - Voc(V)	47.50	47.70	47.90	48.10	48.30	48.50	48.70
Short circuit current - Isc(A)	15.90	15.95	16.00	16.05	16.10	16.15	16.20
Rated voltage - Vmp(V)	39.29	39.46	39.61	39.78	39.97	40.17	40.37
Rated current - Imp(A)	15.15	15.21	15.28	15.34	15.39	15.44	15.49
#2 | Module efficiency (%)	22.03	22.21	22.40	22.58	22.77	22.95	23.14

#1 Irradiance 1000 W/m², spectrum AM 1.5 and Module temprature of 25 °C
#2 Except Pmax, all other parameters have a tolerance of ±3%.

BI-FACIAL OUTPUT - REAR SIDE POWER GAIN***

5% Gain	Maximum Power (Pmax)	625	630	635	641	646	651	656
	Module Efficiency STC(%)	23.13	23.32	23.52	23.71	23.91	24.10	24.29
15% Gain	Maximum Power (Pmax)	684	690	696	702	707	713	719
	Module Efficiency STC(%)	25.33	25.54	25.76	25.97	26.18	26.40	26.61
25% Gain	Maximum Power (Pmax)	744	750	756	763	769	775	781
	Module Efficiency STC(%)	27.53	27.77	28.00	28.23	28.46	28.69	28.92

** Additional Power Gain from rear side is depends on albedo. (Higher albedo, the higher power gain.)

ELECTRICAL PARAMETER AT NOCT#3

Power (W)	452.90	456.70	460.60	464.40	468.20	472.00	475.80
Vmp (V)	37.34	37.50	37.64	37.81	37.99	38.18	38.37
Imp (A)	12.14	12.18	12.24	12.29	12.33	12.37	12.41
Voc (V)	45.14	45.33	45.52	45.71	45.90	46.09	46.28
Isc (A)	12.77	12.81	12.85	12.89	12.93	12.97	13.01

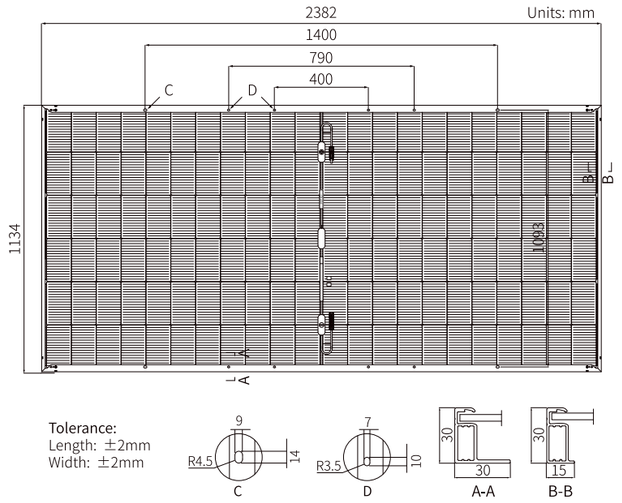
#3 NOCT irradiance 800 W/m2 , ambient temprature 20°C, wind speed 1 m/sec

PRODUCT WARRANTY

Product warranty**	12 years
Performance guarantee**	30 years Linear power warranty with degradation of 1% in 1st year and 0.40% thereafter till 30 years.

**applicable only when module instalation done as per Solex's installation manual

DRAWING (MEASUREMENTS ARE IN MM)



MECHANICAL SPECIFICATION

SPECIFICATION	DETAILS
Solar cells	N type Mono Crystline sillicon, TOPCON
No. of cells	132 Half cut (11x6 ‖ 11x6)
Dimensions	(L) 2382 mm x (W) 1134 mm x (H) 30mm
Backside	2.0mm, Heat strengthened patterned Glass
Front glass	2.0mm, High Transmission, ARC Tempered Glass
Frame	Silver Anodized Aluminium Alloy
Weight	34.0 kg
J-box	IP 68 certified, 3 diodes junction box
Cable	Solar cable 400 mm length or customized length , 4 mm²
Connectors	Compatible with MC4 connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Surface load	(Snow load 5400 Pa, wind load 2400 Pa).

TEMPRATURE COEFFICIENT (TC)

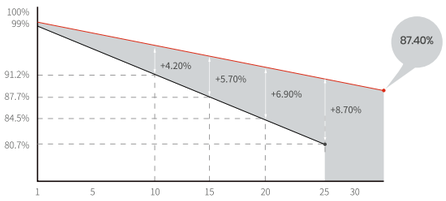
Temperature Coefficient (Voc)**	-0.24 % /°C
Temperature Coefficient (Isc)**	-0.04 % /°C
Temperature Coefficient (Pmax)**	-0.280 % /°C

PERMISSIBLE OPERATING CONDITIONS

Temperature range	-40°C to + 85°C
Maximum system voltage	1500 VDC
NOCT	45± 2°C
Hail resistance	Maximum diameter of 25 mm with velocity 23 m/s
Maximum series fuse rating	30A
Bifaciality Factor	80 ±5 %

PERFORMANCE DEGRADATION CHART

ADDITIONAL VALUE



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- Before placing an order confirm your requirements with our sales representative.
- The technical details, drawings and IV Curve here are for reference purposes only.
- Due to constant product modifications, Solex Energy Limited reserves the right to amend the above specifications without prior notice.
- Dispose-off the product as E-Waste after the end of its working life.

PACKING CONFIGURATION

Container	40'HQ
Modules per Pallet	36
Pallets per Container	20
Modules per Container	720

RIOCONN10062025

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

tapi® Trans Dual Series

570-595 Watt

N-Type Dual Glass Modules

The all-new era of efficiency and performance
will set new standards in the industry

12 12-years product warranty

30 30-years linear performance warranty

Product & System Certifications

TÜVNORD TÜV NORD CERT GmbH ISO 9001 ISO 14001 ISO 45001 tuev-nord.de

R-72008125
BIS 14286:2010
IS/IEC 61730:2004
IS/IEC 61730:2004

IEC

IEC 61215-1 & 2: 2021
IEC 61730-1 & 2: 2023
UL 61730-1 & 2: 2022

Quality & Reliability

IP68 Rated Junction Box for
Long-Term Weather Endurance.
Made with high-grade raw material to achieve
Quality, Durability, Efficiency, and through output.

Module Efficiency
Upto 23.03%

144
Half Cell

Weather
Resistant

Ideal For
Urban Environment

** Certification Under Process

Module Image Is For Reference Only, Actual Appearance May Vary.

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TAPI TRANS DUAL SERIES - TECHNICAL DATA

TECHNICAL DATA FOR STGP144M10B16-AAA (570 - 595) N-TYPE TOPCON BI-FACIAL MODULE

ELECTRICAL PARAMETER AT STC #1,2

MODULE TYPE	y rating – Pmax (W)	STGP144M10B16-AAA (570-595)				
Capacit	570	575	580	585	590	595
Power Tolerance (Wp)	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99
Open circuit voltage - Voc(V)	51.08	51.28	51.48	51.68	51.40	51.50
Short circuit current - Isc(A)	14.24	14.30	14.36	14.42	13.80	13.87
Rated voltage - Vmp(V)	42.80	43.00	43.20	43.40	45.07	45.15
Rated current - Imp(A)	13.32	13.38	13.43	13.48	13.10	13.18
Module efficiency (%)	22.07	22.26	22.45	22.65	22.84	23.03

#1 Irradiance 1000 W/m², spectrum AM 1.5 and Module temperature of 25°C.
#2 Except Pmax other parameters have a tolerance of ± 3%

BI-FACIAL OUTPUT - REAR SIDE POWER GAIN***

5% Gain	Maximum Power (Pmax)	599	604	609	614	619.50	624.75
	Module Efficiency STC(%)	23.17	23.37	23.57	23.78	23.98	24.18
15% Gain	Maximum Power (Pmax)	656	661	667	673	649.00	654.50
	Module Efficiency STC(%)	25.37	25.60	25.82	26.04	25.12	25.34
25% Gain	Maximum Power (Pmax)	713	719	725	731	737.50	743.75
	Module Efficiency STC(%)	27.58	27.82	28.07	28.31	28.55	28.79

** Additional Power Gain from rear side is depends on albedo. (Higher albedo, the higher power gain.)

ELECTRICAL PARAMETER AT NOCT#3

Power (W)	429.55	433.32	437.09	440.86	460.06	456.29
Vmp (V)	40.31	40.48	40.68	40.88	42.51	42.44
Imp (A)	10.66	10.70	10.74	10.78	10.83	10.76
Voc (V)	48.53	48.72	48.91	49.10	48.97	48.88
Isc (A)	11.49	11.54	11.59	11.64	11.35	11.29

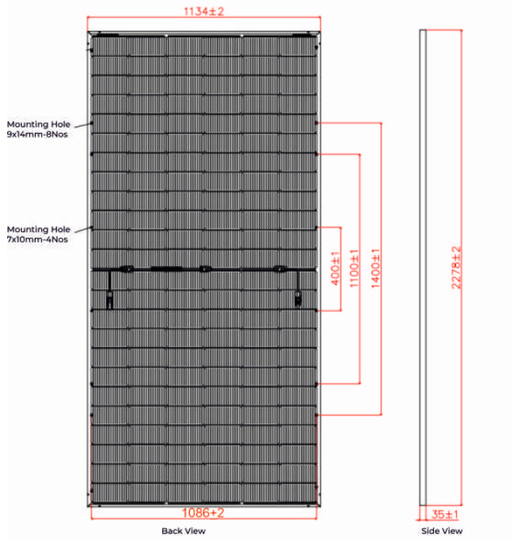
#3 NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/sec

PRODUCT WARRANTY AND CERTIFICATIONS

Product warranty**	12 years
Performance guarantee**	30 years Linear power warranty with degradation of 1% in 1st year and 0.40% thereafter till 30 years.

**applicable only when module installation done as per Solex's installation manual

DRAWING (MEASUREMENTS ARE IN MM)



MECHANICAL SPECIFICATION

SPECIFICATION	DETAILS
Solar cells	N type Mono-crystalline Silicon, TOPCon
No. of cells	144 Half Cut (12x6 ‖ 12x6)
Dimensions	(L) 2278 mm x (W) 1134 mm x (H) 35 mm
Backside	2.0mm, Heat Strengthened Patterned Glass
Front glass	2.0 mm, High Transmission, ARC Tempered Glass
Frame	Silver Anodized Aluminium Alloy
Weight	~32 kg
J-box	IP 68 certified, 3 diodes junction box
Cable	Solar cable 400mm length or Customized Length, 4 mm²
Connectors	Compatible with MC4 connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Surface load	Snow load 5400 Pa, wind load 2400 Pa

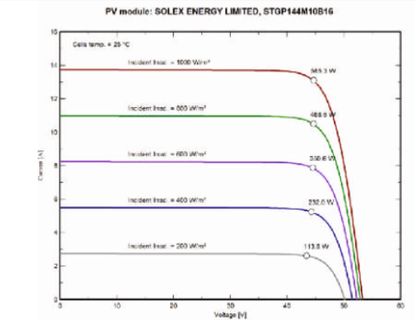
TEMPRATURE COEFFICIENT (TC)

Temperature Coefficient (Voc)**	-0.23%/°C
Temperature Coefficient (Isc)**	0.03%/°C
Temperature Coefficient (Pmax)**	-0.30%/°C

PERMISSIBLE OPERATING CONDITIONS

Temperature range	-40°C to +85°C
Maximum system voltage	1500 VDC
NOCT	45± 2°C
Hail resistance	Max. diameter of 25 mm with velocity 23 m/s
Maximum series fuse rating	30A
Bifaciality Factor	80±10%

IV CURVE



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- Due to constant product modifications, Solex Energy Limited reserves the right to amend the above specifications without prior notice.
- Dispose-off the product as E-Waste after the end of its working life.

PACKING CONFIGURATION

Container	40'HQ
Modules per Pallet	31
Pallets per Container	20
Modules per Container	620

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

Tapi® Series

530-560 Watt

The all-new era of efficiency and performance will set new standards in the industry

12-years product warranty

30-years linear performance warranty

Manufactured in an ISO 9001:2015,
ISO 14001:2015, ISO 45001:2018
Certified Facility.

IP68 Rated Junction Box for
Long-Term Weather Endurance.

BIS 14286
IEC Certificates
IEC 61215-1 & 2 : 2016, IEC 61730-1 & 2 : 2016
IEC 61701 : 2020, IEC 62804 : 2015
IEC 61853-1 & 2 : 2016,
IEC 60068-2-68 : 1994
IEC 62716 : 2013, IEC 60904-1
IEC TS 63342 : 2022
IEC 61215-2 (MQT 08, 19.1)

Made with high-grade raw material
to achieve Quality, Durability,
Efficiency, and through output.

Module Efficiency
Upto 21.68%

144
Half Cut Cell

Weather
Resistant

Ideal For Commercial
& Industrial Rooftop

Module Image Is For Reference Only, Actual Appearance May Vary.

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TECHNICAL DATASHEET

TECHNICAL DATA FOR SMF72HM10-AAA (530-560) MONOCRYSTALLINE MODULE AND SMB72HM10-AAA (530-560) BI-FACIAL MONOCRYSTALLINE MODULE

ELECTRICAL PARAMETER AT STC #1,2

MODULE TYPE	SMFB/SMBB54HM10*-AAA (530 - 560)						
Capacity rating – Pmax (Wp)	530	535	540	545	550	555	560
Power Tolerance (Wp)	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99
Open circuit voltage - Voc(V)	49.45	49.58	49.71	49.84	49.97	50.10	50.23
Short circuit current - Isc(A)	13.43	13.51	13.59	13.67	13.75	13.83	13.91
Rated voltage - Vmp(V)	41.54	41.67	41.80	41.93	42.06	42.19	42.33
#1 | Rated current - Imp(A)	12.76	12.84	12.92	13.00	13.08	13.16	13.23
#2 | Module efficiency (%)	20.52	20.71	20.91	21.10	21.30	21.49	21.68

#1 Under Standard Test Conditions (STC) of irradiance 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
#2 Except Pmax other parameters have a tolerance of ± 3%,

BI-FACIAL OUTPUT - REAR SIDE POWER GAIN***

5% Gain	557	562	567	572	578	583	588
10% Gain	583	589	594	600	605	611	616
15% Gain	610	615	621	627	633	639	644
25% Gain	636	642	648	654	660	666	672

*** Additional Power Gain from rear side depends on albedo. (Higher albedo, the higher power gain.)

ELECTRICAL PARAMETER AT NOCT#3

Power (W)	391.88	395.57	399.28	403.00	406.73	410.49	414.04
Vmp (V)	38.35	38.47	38.59	38.71	38.83	38.95	39.08
Imp (A)	10.22	10.28	10.35	10.41	10.47	10.54	10.59
Voc (V)	46.05	46.17	46.30	46.42	46.54	46.66	46.78
Isc (A)	10.86	10.92	10.99	11.05	11.12	11.18	11.25

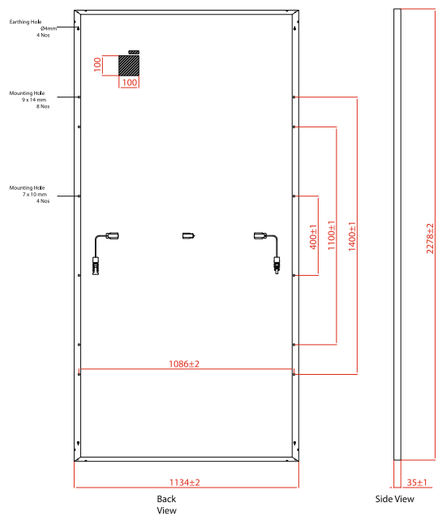
#3 NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/sec

WARRANTY

Product warranty**	12 years
Performance warranty**	30 years Linear Power Warranty for with 2% for 1st Year degradation and 0.55% from year 2 to year 30

**applicable only when module installation done as per Solex's installation manual

DRAWING (MEASUREMENTS ARE IN MM)



MECHANICAL SPECIFICATION

SPECIFICATION	DETAILS
Solar cells	Monocrystalline Silicon (PERC), Bi facial MBB
Encapsulation	Ultra - clear PID free EVA (Ethylene-Vinyl-Acetate)
Backside	UV protected White/Transparent backsheet
Front glass	3.2 mm, High Transmission, ARC Tempered Glass
Frame	Silver Anodized Aluminium Alloy
Dimensions	(L) 2278 mm x (W) 1134 mm x (H) 35mm
Weight	~28.0 kg
J-box	IP 68 certified, 3 diodes junction box
Cable	Solar cable 400 mm length, 4 mm²
Connectors	Compatible with MC4 connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Surface load	Snow load 5400 Pa, wind load 2400 Pa

TEMPRATURE COEFFICIENT (TC)

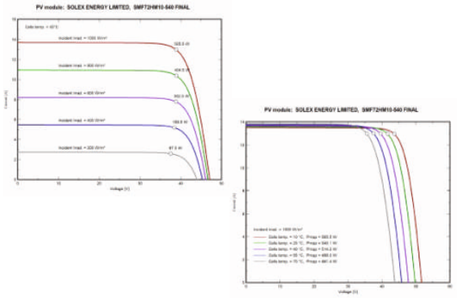
Temperature Coefficient (Voc)**	-0.24%/°C	&	-0.27%/°C (BF)
Temperature Coefficient (Isc)**	0.04%/°C	&	0.05%/°C (BF)
Temperature Coefficient (Pmax)**	-0.32%/°C	&	-0.33%/°C (BF)

PERMISSIBLE OPERATING CONDITIONS

Temperature range	-40°C to +85°C
Maximum system voltage	1500/1000 VDC
NOCT	45± 2°C
Hail resistance	Max. diameter of 25 mm with velocity 23 m/s

**applicable only when module installation done as per Solex's installation manual.

IV CURVE



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- Due to constant product modifications, Solex Energy Limited reserves the right to amend the above specifications without prior notice.
- Dispose-off the product as E-Waste after the end of its working life.

PACKING CONFIGURATION

Container	40'HQ
Modules per Pallet	31
Pallets per Container	20
Modules per Container	620

RIOCONN 06022025

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TAPI® Black

400-420 Watt

The all-new era of efficiency and perfomance will set new standards in the industry

12-years product warranty

30-years linear performance warranty

Manufactured in an ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Facility.

IP68 Rated Junction Box for Long-Term Weather Endurance.

IEC Certificates
IEC 61215-1 & 2 : 2016, IEC 61730-1 & 2 : 2016
IEC 61701 : 2020, IEC 62804 : 2015
IEC 61853-1 & 2 : 2016, IEC 60068-2-68 : 1994
IEC 62716 : 2013, IEC 60904-1
IEC TS 63342 : 2022
IEC 61215-2 (MQT 08, 19.1)
UL 61730-1 & 2 : 2017
CEC 300 : 2018

Made with high-grade raw material to achieve Quality, Durability, Efficiency, and through output.

Module Efficiency Upto 21.50%

108 Half Cell

Weather Resistant

Excellent Outdoor Power Genration

Module Image Is For Reference Only, Actual Appearance May Vary.

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TECHNICAL DATASHEET

TECHNICAL DATA FOR SMFB54HM10-AAA (400- 420) - ALL BLACK MONOCRYSTALLINE MODULE AND SMBB54HM10-AAA (400-420) - ALL BLACK BI-FACIAL MONOCRYSTALLINE MODULE

ELECTRICAL PARAMETER AT STC #1,2

MODULE TYPE	SMFB/SMBB54HM10*-AAA (400- 420)				
Capacity rating – Pmax (Wp)	400	405	410	415	420
Power Tolerance (Wp)	0-4.99	0-4.99	0-4.99	0-4.99	0-4.99
Open circuit voltage - Voc(V)	38.57	38.74	38.95	39.12	39.31
Short circuit current - Isc(A)	13.33	13.42	13.50	13.58	13.66
Rated voltage - Vmp(V)	31.47	31.64	31.85	32.02	32.21
Rated current - Imp(A)	12.72	12.80	12.88	12.96	13.04
Module efficiency (%)	20.49	20.73	21.00	21.24	21.50

#1 Under Standard Test Conditions (STC) of irradiance 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.
#2 Except Pmax other parameters have a tolerance of ± 3%

BI-FACIAL OUTPUT - REAR SIDE POWER GAIN***

5% Gain	420	425	431	436	441
10% Gain	440	445	451	456	462
15% Gain	460	466	472	477	483
20% Gain	480	486	492	498	504

*** Additional Power Gain from rear side depends on albedo. (Higher albedo, the higher power gain.)

ELECTRICAL PARAMETER AT NOCT#3

Power (W)	295.95	299.42	303.29	306.80	310.53
Vmp (V)	29,06	29,21	29,41	29,56	29,74
Imp (A)	10,19	10,25	10,31	10,38	10,44
Voc (V)	35,92	36,08	36,27	36,43	36,61
Isc (A)	10,78	10,85	10,92	10,98	11,05

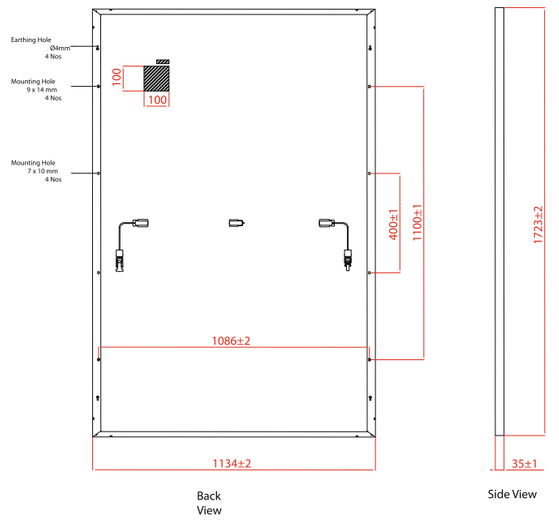
#3 NOCT irradiance 800 W/m2, ambient temperature 20°C, wind speed 1 m/sec

WARRANTY

Product warranty**	12 years
Performance warranty**	30 years Linear Power Warranty for with 2% for 1st Year degradation and 0.55% from year 2 to year 30

**applicable only when module instalation done as per Solex's installation manual

DRAWING (MEASUREMENTS ARE IN MM)



Back View

Side View

MECHANICAL SPECIFICATION

SPECIFICATION	DETAILS
Solar cells	Monocrystalline Silicon (PERC), Bi facial MBB
Encapsulation	Ultra - clear PID free EVA (Ethylene-Vinyl-Acetate)
Backside	UV protected Black/Transparent backsheet
Front glass	3.2 mm, High Transmission, ARC Tempered Glass
Frame	Black Anodized Aluminium Alloy
Dimensions	(L) 1723 mm x (W) 1134 mm x (H) 35mm
Weight	~21.3 kg
J-box	IP 68 certified, 3 diodes junction box
Cable	Solar cable 400 mm length, 4 mm²
Connectors	Compatible with MC4 connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type 1)
Surface load	Snow load 5400 Pa, wind load 2400 Pa

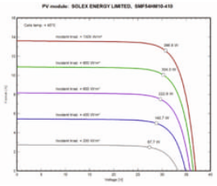
TEMPRATURE COEFFICIENT (TC)

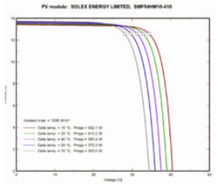
Temperature Coefficient (Voc)	-0.24%/°C & -0.27%/°C (BF)
Temperature Coefficient (Isc)	0.04%/°C & 0.05%/°C (BF)
Temperature Coefficient (Pmax)	-0.32%/°C & -0.33%/°C (BF)

PERMISSIBLE OPERATING CONDITIONS

Temperature range	-40°C to + 85°C
Maximum system voltage	1500/1000 VDC
NOCT	45± 2°C
Hail resistance	Max. diameter of 25 mm with velocity 23 m/s

IV CURVE





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PACKING CONFIGURATION

Container	40'HQ
Modules per Pallet	31
Pallets per Container	26
Modules per Container	806

RIOCONN 06022025

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

ganga

120 Watt
Monocrystalline Silicon

10 10-years product warranty

BIS 14286 Certified

Module Efficiency Upto 19.12%

33 Half Cell

Weather Resistant

Excellent Outdoor Power Generation

Module Image Is For Reference Only, Actual Appearance May Vary.

SOLEX ENERGY | 30 YEARS OF ENERGY EXCELLENCE

TECHNICAL DATASHEET

TECHNICAL DATA FOR SMF33HM10-120WP MODULE

ELECTRICAL CHARACTERISITICS AT STC

MODULE TYPE	SMF33HM10-120
Maximum Power at STC - (Pmax)(Wp)	120
Voltage at Pmax (Vmp)(V)	19.45
Current at Pmax (Imp)(A)	6.17
Open Circuit Voltage (Voc)	22.21
Short Circuit Current (Isc)(A)	6.51
Module Efficiency (%)	19.12
Maximum System Voltage (V)	1000

Standard Test Conditions (STC): Irradiance: 1000 W/m², AM 1.5 and cell temperature of 25°C

GUARANTEES AND CERTIFICATIONS

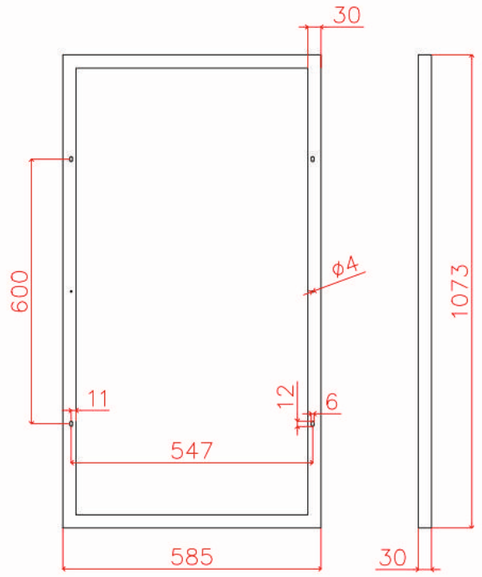
Product warranty**	10 years
Performance guarantee**	Limited warranty for power output – 90% for 10 years,and 80% for 25 years
Product Certifited	IS-14286, IS-61730:1, IS - 61730:2

**applicable only when module installation done as per Solex's installation manual

MECHANICAL CHARACTERISITICS

Module Size (L x W x H) (mm)	1073 x 585 x 30
Mounting Hole (Y-axis) (mm)	600
Mounting Hole (X-axis) (mm)	547
Solar Cell Matrix	11 x 3

SPECIFICATION	DETAILS
Solar Cell Type	Monocrystalline Silicon (PERC) - 10 BB
Solar Cell Size	91 x 182 mm
Front Cover	3.2 mm, High Transmission, Tempered Glass
Encapsulate	Ethylene Vinyl Acetate
Frame Material	Silver Anodized Aluminium Alloy
Connector	As per Customer Requirement (Optional)
Cable	As per Customer Requirement (Optional)
Standard Packing (Modules per Box)	5 in 1 Box (Corrugated Box)



RIOCONN 07022025

Quality Assurance

1. Ensures maximum yield and demonstrates exceptional stability, verified through rigorous testing for wind and snow loads.
2. Facilitates independent operation of the upper and lower halves of the modules.
3. Utilizes non-destructive cell-cutting technology for enhanced efficiency and longevity.
4. Achieves precision manufacturing without human intervention.
5. Implements touchless stringing, bussing, and junction box soldering for a seamless production process.
6. Supported by a 12-year product warranty and a 30-year performance warranty.
7. Employs high-quality, certified raw materials for superior longevity and performance.
8. Conduct extensive thermal cycling and humidity freeze tests.
9. Utilizes PID resistance and anti-LID (Light Induced Degradation) technology.
10. Ensures rigorous final inspections and testing of every finished product.

Offering Installation & Solutions


Solar Residential Rooftop


Solar Industrial Rooftop


Solar Power Plant


Solarizing Commercial Spaces


Solar Car Port

Visionary Projects
Building A New India

Radhadarshan Petropack LLP

Ankhleshwer, Gujarat

2.5 MW

Kiran Spinning Mill

Silvassa, Dadra & Nagar Haveli

2 MW

Sankalp In

Patan, Gujarat

1 MW

Shavyaa Geotex

Surat, Gujarat

943 KW

Eminent Paper Industries LLP

Surat, Gujarat

843 KW

Kothari Rayon

Surat, Gujarat

600 KW

Govardhan Polyplast

Surat, Gujarat

540 KW

Inorbit Mall

Vadodara, Gujarat

485 KW

Naveent Education Limited

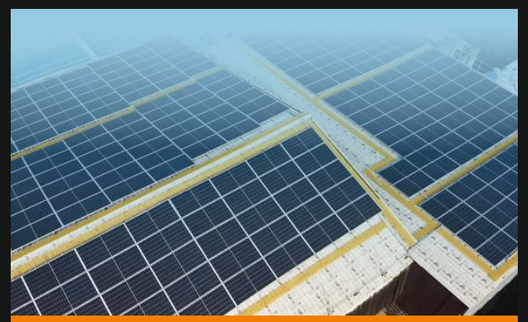
Thane, Maharashtra

350 KW

Torrent Power

Surat, Gujarat

275 KW



Agrawal Textile Mill

Surat, Gujarat

260 KW

GoodLuck Textile Market Carport

Surat, Gujarat

50 KW

Catering Across Industries

Government

Real Estate

Agriculture

Banking Institutions

Residential Societies

Hospitality

Educational Institutes

Transport & logistics

Media & Entertainment

Manufacturing

Healthcare

Telecom & Communication

Notes

SOLEX ENERGY

30 YEARS OF ENERGY EXCELLENCE

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