



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
that sets new standards in the industry.

12 12 year product warranty

30 30 year linear performance warranty

Product & System Certifications



ISO 9001:2015
ISO 14001:2015
ISO 45001:2018



R-72008125



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



Module Efficiency
Upto 23.14%



Cell Efficiency
up to 25.6%



Weather
Resistant



Lower LCOE
Higher Savings



Ideal For Large-Scale
Projects



Super Performance
& Reliability

Quality & Reliability

IP68-rated junction box designed for long-term
weather endurance.

Manufactured using high-grade raw materials
to ensure superior quality, durability, efficiency,
and high throughput.

Module image is for reference only, actual appearance may vary.

TECHNICAL DATASHEET

TECHNICAL DATA FOR STGP132R210B16-AAA (595-625)

ELECTRICAL PARAMETER AT STC ^{#1,2}

MODULE TYPE	STGP132R210B16-AAA (595-625)						
Capacity rating – Pmax (Wp)	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 temperature 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 the rear side depends on the albedo. Higher albedo results in 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

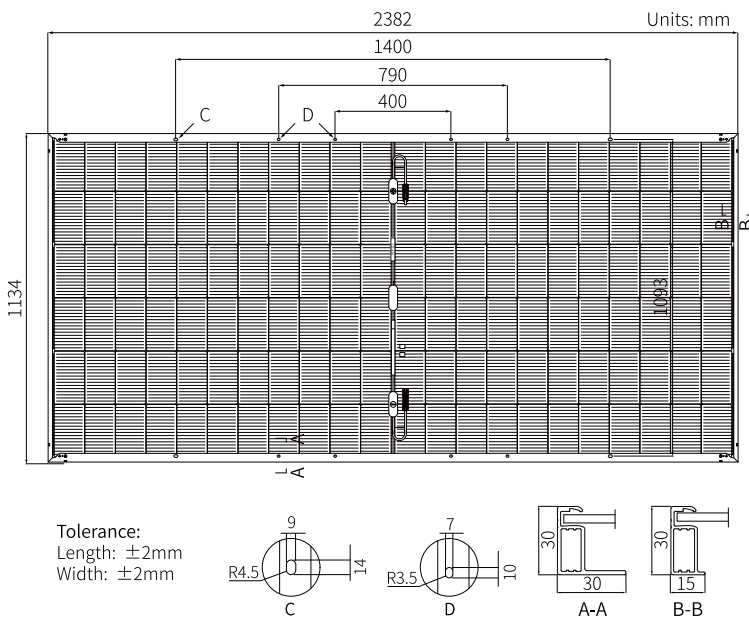
#3 NOCT Irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/s

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 the module is installed 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	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 mm ²
Connectors	Compatible with MC4-type connectors
Application Class	Class A
Electrical Safety	Class II
Fire Safety	Class C (Type I)
Surface load	(Snow load 5400 Pa, wind load 2400 Pa).

TEMPERATURE COEFFICIENT (TC)

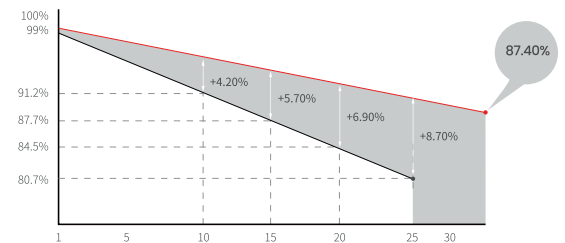
Temperature Coefficient (Voc)**	-0.230 % / °C
Temperature Coefficient (Isc)**	0.045 % / °C
Temperature Coefficient (Pmax)**	-0.280 % / °C

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



- For unpacking, handling, and installation instructions, please refer to Solex Energy's manual guidelines available on the company's website.
- Before placing an order, please confirm your requirements with our sales representative.
- The technical details, drawings, and I-V curves provided here are for reference purposes only.
- Due to continuous product improvements, Solex Energy Limited reserves the right to amend the above specifications without prior notice.
- Dispose of the product as e-waste at the end of its service life, in accordance with applicable regulations.

PACKING CONFIGURATION

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