



Tapi Series

530-560 Watt

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

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 Efficiency
up to 21.68%



144
Half Cut Cell



Weather
Resistant



Ideal For Commercial
& Industrial Rooftop

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

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 the rear side depends on the albedo. Higher albedo results in 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

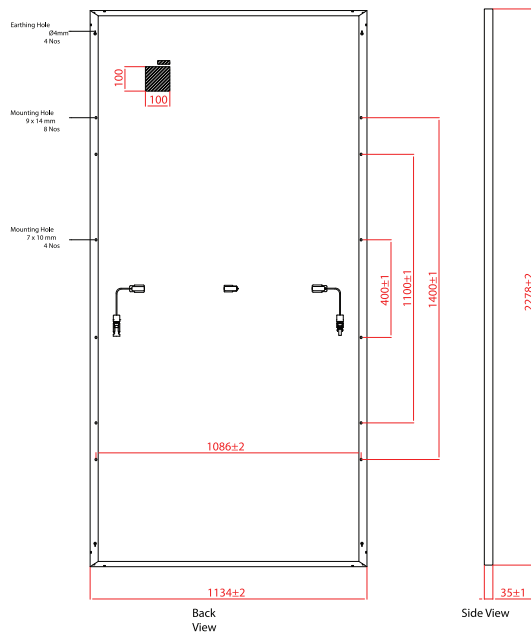
#3 NOCT Irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/s

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 the module is installed 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 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)

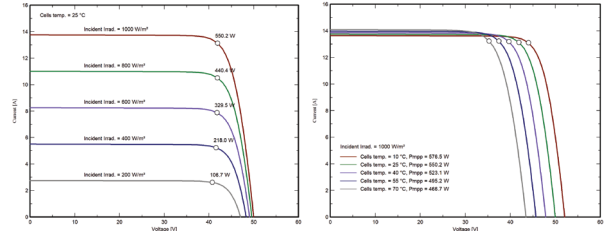
Temperature Coefficient (Voc)**	-0.24%/°C & -0.27%/°C (BF)
Temperature Coefficient (Isc)**	0.04%/°C & 0.05%/°C (BF)
Temperature Coefficient (Pmax)**	-0.32%/°C & -0.33%/°C (BF)

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



- 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	31
Pallets per Container	20
Modules per Container	620