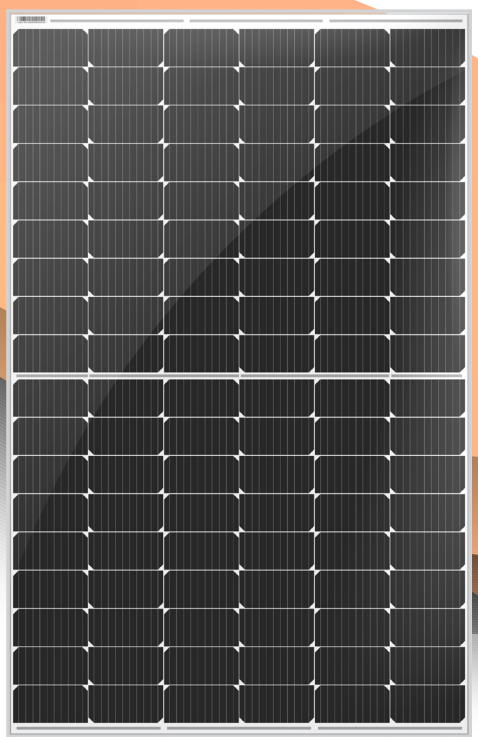
Tapi™

400-420 Watt

SOLEX®
OWN YOUR POWER...



108 Half Cell

Up to 21.50%

Up to 420Wp

Up to +2.99Wp Positive

21.3 kg

HOW YOU BENEFIT

- Optimal yield in all weather conditions; excellent lowlight and temperature behaviour
- Excellent stability; tested for wind loads up to 2,400 Pa and snow loads up to 5,400 Pa
- Better Performance under shade; separate operation of upper & lower half of the module
- NDC — Minimized micro-cracks with innovative non-destructive cutting technology
- 5BB → 10BB — Lower Internal Resistance; Boosts module power that helps in achieving minimal power loss as compare to previous generation module
- 12 YEARS & 27 YEARS — 12-years product warranty & 27-years linear performance warranty

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

R-72008125

E531180

QUALITY & RELIABILITY

- Manufactured in an ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Facility.
- 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
- IP68 Rated Junction Box for Long-Term Weather Endurance.
- Made with high-grade raw material to achieve Quality, Durability, Efficiency, and through output.

IDEAL SOLUTION FOR

- Ground Mounted Installations
- Commercial and Industrial Rooftop installations
- Residential Rooftop Installation

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

TECHNICAL DATASHEET

TECHNICAL DATA FOR SMF54HM10-AAA (400- 420) - MONOCRYSTALLINE MODULE AND SMB54HM10-AAA (400-420) - BI-FACIAL MONOCRYSTALLINE MODULE

ELECTRICAL PARAMETER AT STC#1,2

MODULE TYPE	SMF/SMB54HM10*-AAA (400- 420)				
Capacity rating – Pmax (Wp)	400	405	410	415	420
Power Tolerance (Wp)	0-3	0-3	0-3	0-3	0-3
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 is 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##	27 years Linear Power Warranty with 2% for 1st Year Degradation and 0.55% from year 2 to year 27

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

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
Frame	Silver Anodized Aluminium Alloy
Front glass	3.2 mm, High Transmission, ARC Tempered Glass
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

TEMPERATURE COEFFICIENT (TC)

Temperature Coefficient (Voc)	-0.24% /°C
Temperature Coefficient (Isc)	0.04% /°C
Temperature Coefficient (Pmax)	-0.32% /°C

PERMISSIBLE OPERATING CONDITIONS

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

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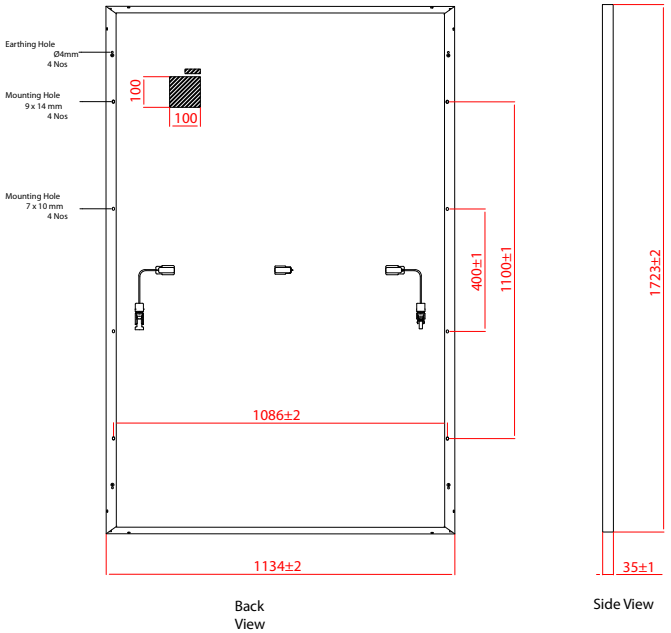
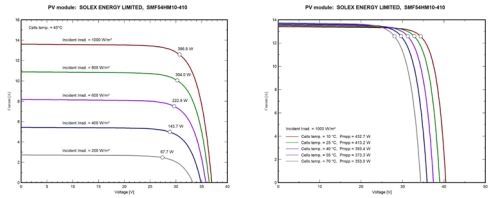
DRAWING (MEASUREMENTS ARE IN MM)



Back View

Side View

IV CURVE



- For unpacking, handling & installation instructions refer to Solex Energy's Manual guidelines available on the company website.
- 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	31
Pallets per Container	26
Modules per Container	806

SOLEX ENERGY LTD.

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