

SwissTech HM-Bi 8000

High Mountain 420~440W 8000 Pa
TOPCon Bifacial high-efficiency PV module

22.53%

Module Efficiency 22.53%

PRODUCT FEATURES



High Power Output

N-type MBB half cut technology, improve energy density, bring higher power output.
High Bifacial Factor, up to 25% extra power generation



High Durability

Passed TUV Salt & Ammonia corrosion test, and 2400Pa wind load, 8000Pa snow load test, higher reliability



Better Low Light Performance

Higher power generation compare with standard module in cloudy, foggy and low light condition



Low Power Degradation

First year power degradation <1.0% , year 2-30 power degradation <0.40% each year



Low Temperature coefficient

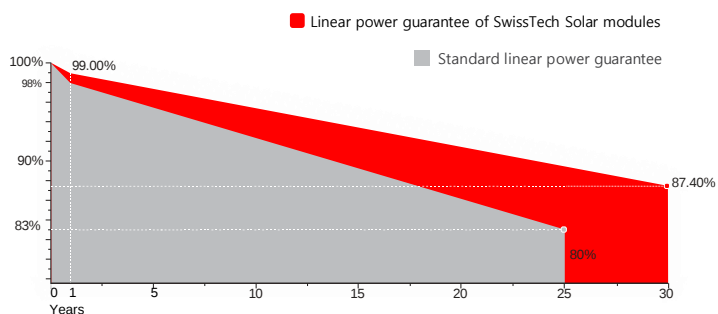
Passivated contact cell technology for higher power generation in operating



Better Anti-PID

N-type cells with boron-oxide-free composite LID to increase module power generation

LINEAR PERFORMANCE WARRANTY



product warranty



linear power warranty



Linear attenuation of 0.40%
per year within 30years

CERTIFICATES

IEC 61215 , IEC 61730

ISO 9001 : 2015 Quality Management System

ISO 14001 : 2015 Environment Management System

ISO 45001 : 2018 Occupational health and safety
management systems



Electrical Data (STC)

Maximum Power (Pmax/W)	420	425	430	435	440
Open Circuit Voltage (Voc/V)	38.2	38.35	38.5	38.65	38.8
Short Circuit Current (Isc/A)	13.74	13.85	13.96	14.07	14.18
Voltage at Maximum Power (Vmp/V)	31.65	31.8	31.95	32.1	32.25
Current at Maximum Power (Imp/A)	13.28	13.37	13.46	13.56	13.65
Module Efficiency (%)	21.51	21.76	22.02	22.28	22.53
Operating Temperature	-40° C~+85° C				
Maximum System Voltage	1000/1500V				
STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25°C , AM1.5					

Electrical Data (NMOT)

Maximum Power (Pmax/W)	316	320	324	328	332
Open Circuit Voltage (Voc/V)	36.27	36.42	36.57	36.72	36.87
Short Circuit Current (Isc/A)	11.25	11.34	11.44	11.53	11.63
Voltage at Maximum Power (Vmp/V)	29.8	29.95	30.1	30.25	30.4
Current at Maximum Power (Imp/A)	10.61	10.69	10.77	10.85	10.93

NMOT (Nominal Module Operating Temperature): Irradiance 800W/m², Ambient Temperature 20°C, AM1.5, Wind Speed 1m/s.

Bifacial Power Generation Parameters (Backside Gains)

5%	Maximum Power (Pmax/W)	441	446	452	457	462
	Module Efficiency (%)	22.58	22.85	23.12	23.39	23.66
15%	Maximum Power (Pmax/W)	483	489	495	500	506
	Module Efficiency (%)	24.73	25.03	25.32	25.62	25.91
25%	Maximum Power (Pmax/W)	525	531	538	544	550
	Module Efficiency (%)	26.89	27.21	27.53	27.85	28.17

Mechanical Data

Cell Type	182×91mm Mono
Cell Orientation	108(6×18)
Module Dimensions	1722×1134×30mm
Weight	25.0kg
Glass	2.0mm high transmittance, reinforced glass
Backsheet	2.0mm part of the structure is grid-like white ceramic glass
Frame Material	Anodized aluminum alloy(Black)
Junction Box	Protection class IP68
Cable	4.0 mm ² positive pole: 1200 mm negative pole: 1200 mm wire length can be customized
Connector	MC4 compatible connector

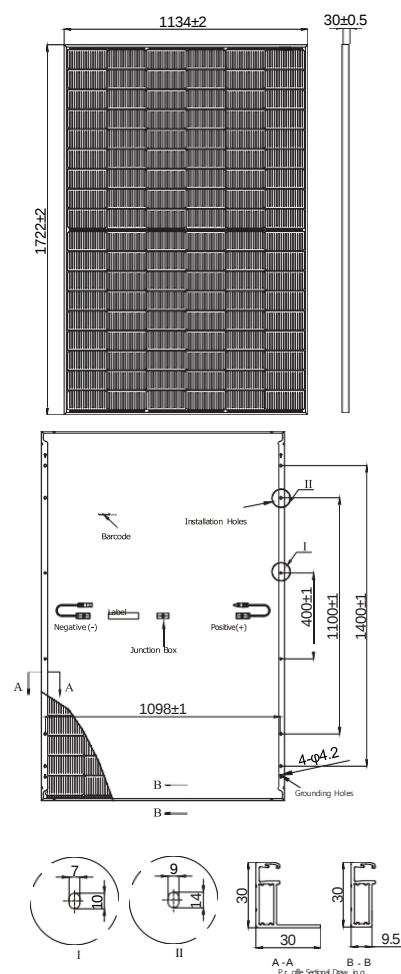
Temperature Coefficients

Temperature Coefficient (Pm)	-0.300%/°C
Temperature Coefficient (Voc)	-0.250%/°C
Temperature Coefficient (Isc)	0.046%/°C
NMOT (Nominal Module Operating Temperature)	41±3°C

Packaging

Transportation methods	Number of modules per cabinet	Number of modules per pallet
40HQ container	936 pcs	36 pcs +36 pcs

Module Dimensions (mm)



I-V Curve

Current-Voltage Curve(440W)

