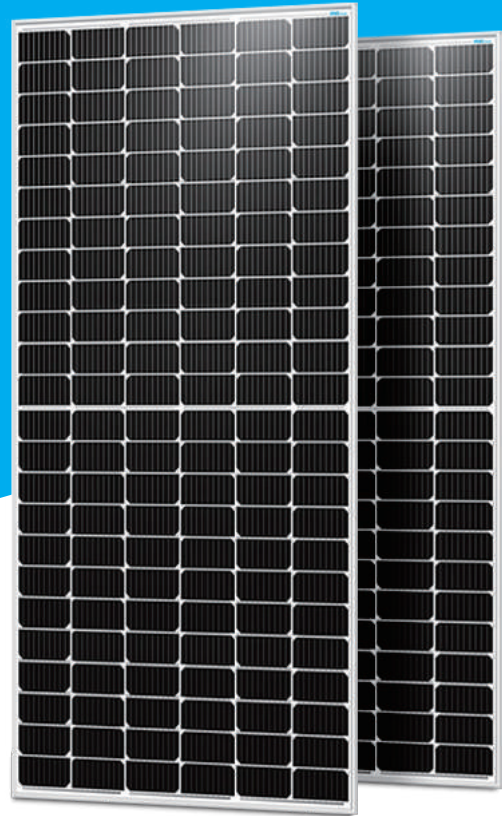


Soltech Energy

ST-144M(182) 535-550 Watt

HALF-CELL MBB MONO PERC



Key Features



Multi Busbar Solar Cell

Stronger current collection ability, Special circuit design with much lower hot spot temperature;



PID Resistant

Excellent PID resistance at 96 hours (85°C/85%) test, and also can be improved to meet higher standards for the particularly harsh environment;



Anti-Crack

Excellent anti-microcracking performance with more balanced interior stress;



Module efficiency up to 20.93%

Half cell structure brings low resistance characteristic, higher lifetime generating capacity, simultaneously lower annual power attenuation;



Low-Light Performance

Excellent power generation performance under Low-Light condition due to multi busbar; better shading response benefit from half cell module;

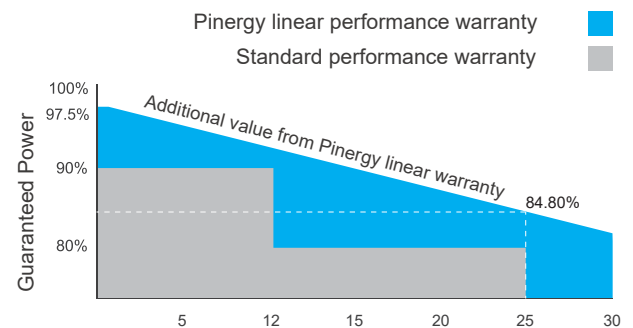


Strength and Durability

Certified for 5400Pa snow and 2400Pa Wind loads test;

Linear Performance Warranty

12 Years Product Warranty · 30 Years Linear Power Warranty



Certifications

- IEC 61215, IEC 61730, CE, CQC
- ISO9001: 2015: Quality management system
- ISO14001: 2015: Environmental management system
- ISO45001: 2018: Occupational health and safety management system



Electrical Specifications

Module Type	STP144M-535		STP144M-540		STP144M-545		STP144M-550	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Rated output (Pmp/Wp)	535	399	540	403	545	407	550	411
Rated voltage (Vmp/V)	41.0	38.2	41.2	38.4	41.4	38.6	41.6	38.8
Rated current (Imp/A)	13.05	10.44	13.11	10.49	13.17	10.54	13.23	10.58
Open circuit voltage (Voc/V)	49.2	46.1	49.4	46.3	49.6	46.4	49.8	46.6
Short circuit current (Isc/A)	13.81	11.13	13.87	11.18	13.93	11.23	13.99	11.28
Module efficiency (%)	20.70%		20.90%		21.09%		21.28%	
Power Tolerance (W)	0~+5							

Standard Test Condition (STC): Irradiance 1000W/m², Cell Temperature 25 C, AM1.5

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

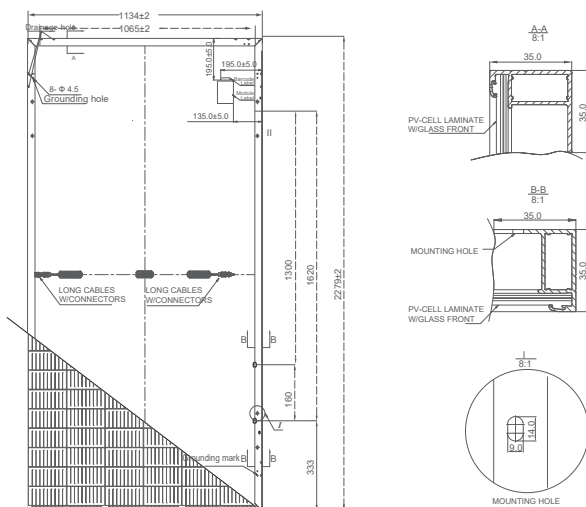
Mechanical Specifications

Cell Type	MBB MONO 182x91mm
No. of Cells	144 (6x24)
Dimension	2279x1134x35mm
Weight	29kg
Glass	3.2mm, Low Iron Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 diodes
Output Cables	4mm ² , Length 300mm or customized
Connector type	MC4 compatible

Packaging Configurations

Per Pallet	31 pcs
Per 20' GP	155 pcs
Per 40' HQ Container	620 pcs

Engineering Drawings



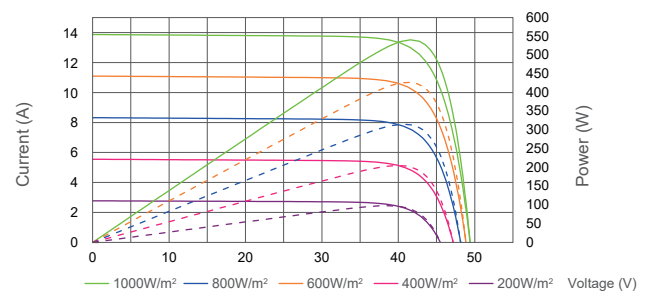
Temperature Characteristics

NOCT Temperature	44 C ±2 C
Temperature Coefficient (Pmax)	-0.36%/C
Temperature Coefficient (Voc)	-0.28%/C
Temperature Coefficient (Isc)	0.05%/C

Maximum Ratings

Maximum system voltage (IEC)	1000 / 1500V DC
Snow / Wind	5400Pa / 2400Pa
Operating Temperature	-40 C ~ +85 C
Maximum series fuse rating	25A

Curve & Temperature Dependence



Power voltage current curve at different temperature

