



FUTURE SOLAR®

FS Green Energies Private Limited

P-type PERC

144 Half-Cut PERC Cell
Bifacial Glass to Transparent Backsheet

Model No: FSP-M10.144B-XXX
(where XXX = 520-560)

-  Outstanding Power Generation
-  PID Free/Low LID Protection
-  Lower Temperature Coefficient
-  Less Hot Spot Shading Effects
-  Enhanced Bifacial Factor
-  Exceptional Mechanical Resistance
-  DCR Panels Available



21.68% Maximum Efficiency	560 Wp Maximum Power Output
0~+4.99 W Positive Power Tolerance	GRADE A Cells Guaranteed

Certifications (Under process)



BIS | IEC 61730 | IEC 61215 | IEC 61853 1 & 2 (PAN File) | IEC 62804 (PID) | UL 61730 | CE

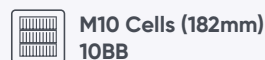
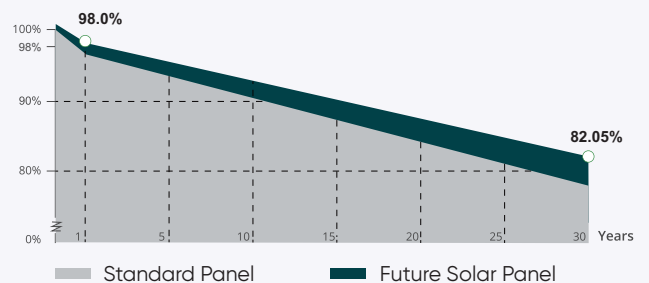
For more details, please contact:
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LINEAR PERFORMANCE WARRANTY

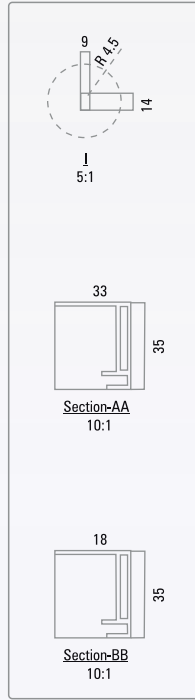
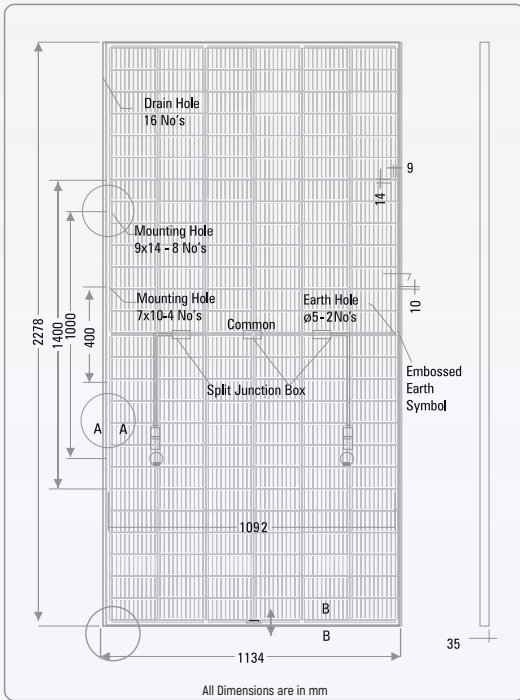
1st Year Degradation < 2%
2-30th Year Degradation < 0.55% p.a.



* T&C Apply

SOLAR PV MODULE

Half-Cut PERC Cell
Bifacial Glass to Transparent Backsheet 520-560 Wp



MECHANICAL SPECIFICATIONS

External Dimension	2278 (±2mm) X 1134 (±2mm) X 35 (±1mm)
Weight	28 Kg
Solar Cells	10 BB, Mono PERC, 91 mm X 182 mm
Front Glass	3.2 mm High Transmission, Low Iron, Tempered Glass
Rear Cover	High Transperant Backsheet
Frame	Anodized Aluminium Alloy (Silver)
Junction Box	3 Split, IP 68 Rated
Connector	MC4 Connector
Mechanical Load	5400 Pa for Snow load, 2400 Pa Wind load
Output Cable	4.0 mm ² / 400 mm length

PACKING CONFIGURATION

Container	40' HQ
Pieces per Pallet	31
Pallet per Container	20
Pieces per Container	620

ELECTRICAL CHARACTERISTICS (STC)

FSP-M10.144B-XXX	520	525	530	535	540	545	550	555	560
Peak power, P Max (Wp)	520	525	530	535	540	545	550	555	560
Maximum voltage, Vmp (V)	41.08	41.30	41.45	41.66	41.82	41.96	42.13	42.27	42.41
Maximum Current, Imp (A)	12.66	12.72	12.81	12.86	12.93	13.00	13.07	13.15	13.25
Open Circuit Voltage, Voc (V)	49.10	49.19	49.35	49.59	49.80	49.95	50.10	50.25	50.39
Short Circuit current, Isc (A)	13.39	13.48	13.56	13.63	13.70	13.76	13.83	13.89	13.96
Module Efficiency (%)	20.13%	20.32%	20.52%	20.71%	20.90%	21.10%	21.29%	21.48%	21.68%
Fill Factor (%)	79.10%	79.23%	79.35%	79.26%	79.26%	79.36%	79.47%	79.64%	79.88%

Power Tolerance 0 to +4.99 W
Maximum System Voltage 1500 V (IEC&UL)
Maximum Series Fuse Rating 25 A

* STC- Irradiance = 1000 W/m², Module Temperature = 25 °C and AM = 1.5 Measuring Tolerance = ±3%

ELECTRICAL CHARACTERISTICS (NOCT)

FSP-M10.144B-XXX	520	525	530	535	540	545	550	555	560
Nominal Maximum Power (W)	388	392	395	399	403	407	410	414	418
Maximum voltage, Vmp (V)	37.60	37.80	37.94	38.13	38.28	38.40	38.56	38.69	38.82
Maximum Current, Imp (A)	10.31	10.36	10.43	10.47	10.53	10.59	10.65	10.71	10.79
Open Circuit Voltage, Voc (V)	45.67	45.75	45.90	46.12	46.32	46.46	46.60	46.74	46.87
Short Circuit current, Isc (A)	10.94	11.01	11.08	11.13	11.19	11.24	11.30	11.34	11.40

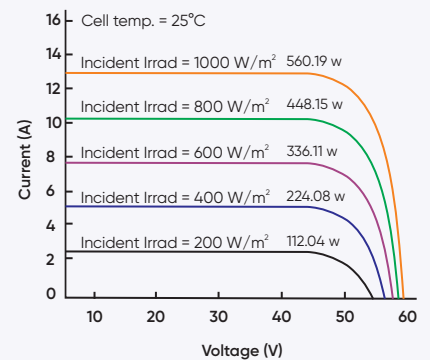
* STC- Irradiance 800 W/M², Ambient Temperature 20° C and Wind speed 1 m/s , Measuring Tolerance: ±3%

Gain	FSP-M10.144B-XXX	520	525	530	535	540	545	550	555	560
5%	Max. Power (P max)	546.00	551.25	556.50	561.75	567.00	572.25	577.50	582.75	588.00
10%	Max. Power (P max)	572.00	577.50	583.00	588.50	594.00	599.50	605.00	610.50	616.00
20%	Max. Power (P max)	624.00	630.00	636.00	642.00	648.00	654.00	660.00	666.00	672.00
30%	Max. Power (P max)	676.00	682.50	689.00	695.50	702.00	708.50	715.00	721.50	728.00

* Bifacial Gain : The additional gain from the backside compared to the power of the front side at STC, It depends on mounting structure, Height, angle, Ground surface etc.

TEMPERATURE CHARACTERISTICS

Pmax Temp. Coefficient (%/°C)	-0.31
Voc Temp. Coefficient (%/°C)	-0.23
Isc Temp. Coefficient (%/°C)	0.03
Operating Temp. (°C)	-40 to +85
Nominal Operating Cell Temp. (°C)	45±2



FS Green Energies Pvt. Ltd.

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