FUTURE SOLAR

FS Green Energies Private Limited

N-type TOPCon

144 Half-Cut TOPCon Cell
Bifacial Dual Glass

Model No: FST-M10.144G-XXX
(where XXX = 560-600)

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

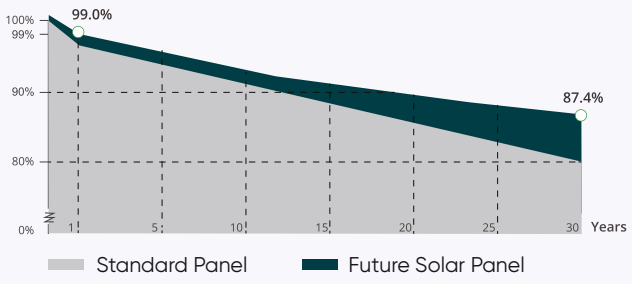
23.23% Maximum Efficiency	**600 Wp** Maximum Power Output
0~+4.99 W Positive Power Tolerance	**GRADE A** Cells Guaranteed

Certifications (Under process)

BIS | IEC 61730 | IEC 61215 | UL 61730 | IEC 61701 (salt mist) | IEC 62716 (Ammonia)
IEC 61853-1 & 2 (PAN File) | LeTID | IEC 60068 (sand & dust) | IEC 62804 (PID) | CEC | CE

LINEAR PERFORMANCE WARRANTY

1st Year Degradation < 1%
2-30th Year Degradation < 0.4% p.a.



- M10 Cells (182mm) 16BB
- Residential
- Commercial & Industrial
- Utility

* T&C Apply

For more details, please contact:

FS Green Energies Pvt. Ltd.

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SOLAR PV MODULE

Half-Cut TOPCon CELL
Bifacial Dual Glass 560-600 Wp

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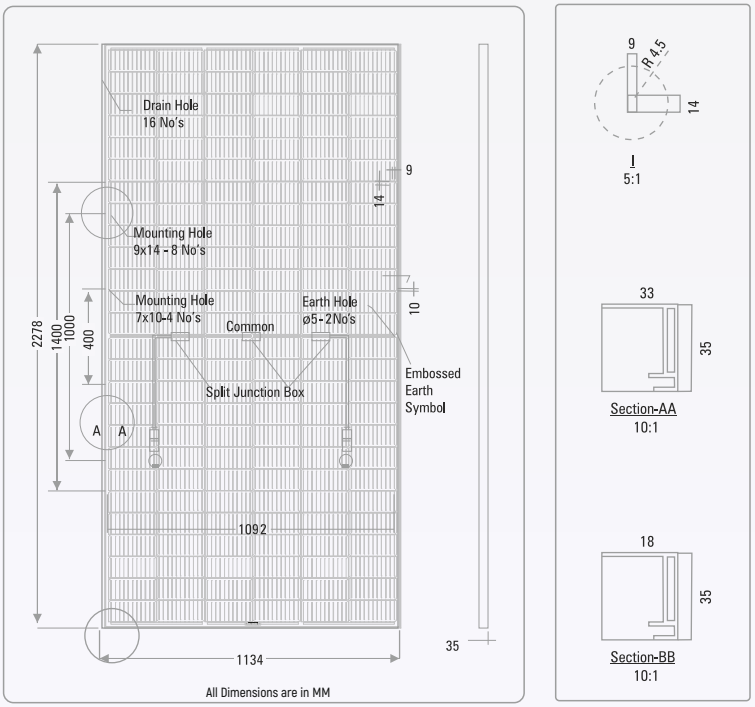


MECHANICAL SPECIFICATIONS

External Dimension	2278 (±2mm) X 1134 (±2mm) X 35 (±1mm)
Weight	31.5 Kg
Solar Cells	16 BB, TopCon, 91 mm X 182 mm
Front Glass	2.0 mm ARC Semi Tempered
Rear Cover	2.0 mm Semi Tempered
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)

FST-M10.144G-XXX	560	565	570	575	580	585	590	595	600
Maximum Power, P Max (Wp)	560	565	570	575	580	585	590	595	600
Maximum Voltage, Vmp (V)	42.33	42.50	42.65	42.80	42.95	43.12	43.31	43.49	43.65
Maximum Current, Imp (A)	13.25	13.31	13.37	13.44	13.51	13.57	13.63	13.69	13.75
Open Circuit Voltage, Voc (V)	51.45	51.65	51.85	52.05	52.25	52.45	52.65	52.85	53.05
Short Circuit Current, Isc (A)	13.70	13.76	13.82	13.88	13.94	14.00	14.15	14.21	14.27
Module Efficiency (%)	21.68%	21.87%	22.07%	22.26%	22.45%	22.65%	22.84%	23.03%	23.23%
Fill Factor (%)	79.24%	79.28%	79.28%	79.57%	79.58%	79.59%	79.62%	79.67%	79.69%
Power Tolerence	0 to +4.99 W								
Maximum System Voltage	1500 V (IEC& UL)								
Maximum Series Fuse Rating	30 A								

* STC- Irradiance = 1000 W/m^2, Module Temperature = 25 °C and AM = 1.5 Measuring Tolerance = ±3%

ELECTRICAL CHARACTERISTICS (NOCT)

FST-M10.144G-XXX	560	565	570	575	580	585	590	595	600
Maximum Power (W)	418	421	425	429	433	436	440	444	448
Maximum Voltage, Vmp (V)	38.74	38.90	39.04	39.17	39.31	39.47	39.64	39.80	3995
Maximum Current, Imp (A)	10.79	10.84	10.89	10.95	11.00	11.05	11.10	11.15	11.20
Open Circuit Voltage, Voc (V)	47.85	48.04	48.22	48.41	48.60	48.78	48.97	49.15	49.34
Short Circuit Current, Isc (A)	11.19	11.24	11.29	11.34	11.39	11.43	11.56	11.61	11.66

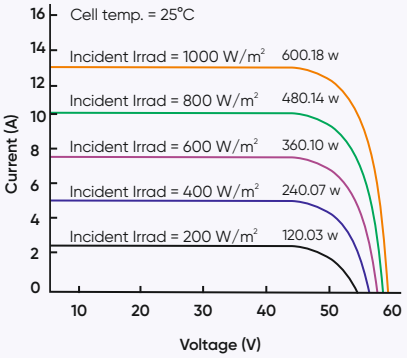
* NOCT - Irradiance = 800 W/m^2, AM = 1.5, Ambient Temperature = 20° C, Wind Speed = 1 m/s, Measuring Tolerance = ±3%

Gain	FST-M10.144G-XXX	560	565	570	575	580	585	590	595	600
5%	Max. Power (P max)	588.00	593.25	598.50	603.75	609.00	614.25	619.50	624.75	630.00
10%	Max. Power (P max)	616.00	621.50	627.00	632.50	638.00	643.50	649.00	654.50	660.00
20%	Max. Power (P max)	672.00	678.00	684.00	690.00	696.00	702.00	708.00	714.00	720.00
30%	Max. Power (P max)	728.00	734.50	741.00	747.50	754.00	760.50	767.00	773.50	780.00

* 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)	-0.28
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



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