N-type TOPCon

FUTURE SOLAR™

132 Half-Cut TOPCon Cell
Bifacial Dual Glass

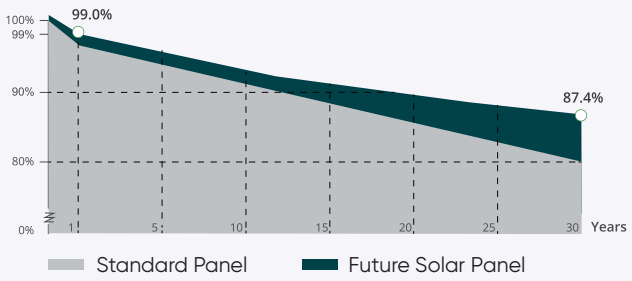
Model No: FST-G12R.132G-XXX
(where XXX = 600-635)

- Higher Effciency
- Bifaciality Factor : 80 ± 10 %
- Lower Degradation
- Outstanding Power Generation
- PID Free/Low LID Protection
- Lower Temperature Coefficient
- Less Hot Spot Shading Effects
- Exceptional Mechanical Resistance

23.51% Maximum Efficiency	**635 Wp** Maximum Power Output
0~+4.99 W Positive Power Tolerance	**GRADE A** Cells Guaranteed

LINEAR PERFORMANCE WARRANTY

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



Certifications

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

- G12R Cells 16BB
- Residential
- Commercial & Industrial
- Utility

* T&C Apply

For more details, please contact:

FS Green Energies Ltd.

Corporate Office:
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Nr. Alkapuri Haveli, Jetalpur Road,
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Manufacturing Unit:
Survey No 160, Karjan Sadhli Road,
Juni Jithardi Village, Karjan - 391 240
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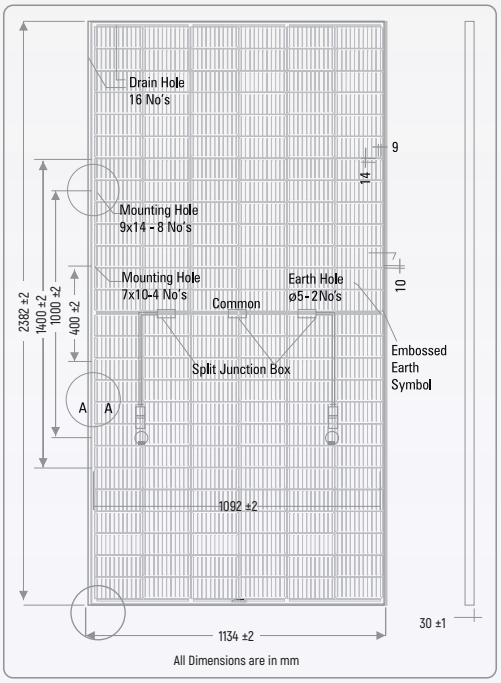
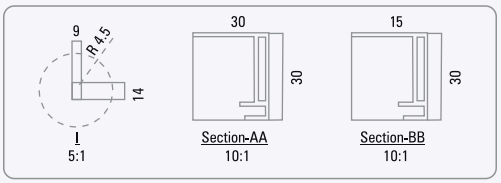
SOLAR PV MODULE

Half-Cut TOPCon CELL
Bifacial Dual Glass 600-635 Wp

FUTURE SOLAR™





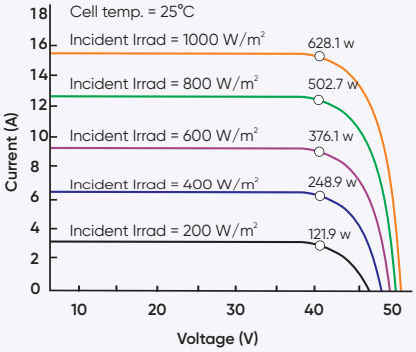
MECHANICAL SPECIFICATIONS

External Dimensions	2382 (±2mm) X 1134 (±2mm) X 30 (±1mm)
Weight	34.5 ±1 Kg.
Solar Cells	16 BB, TopCon, 182.3 mm X 210 mm (±0.5) with 132 Half-cut cells
Front Glass	2.0 mm ARC Heat Strengthened Glass
Rear Cover	2.0 mm Heat Strengthened Glass
Frame	Anodized Aluminium Alloy (Silver) AA ≥ 15 µm
Junction Box	3-Diode Split JB, IP 68 Rated
Connector	MC4 Connector
Mechanical Load	5400 Pa for Snow load, 2400 Pa for Wind Load
Output Cable	4.0 mm²/400 mm Long (Length can be customized)

TEMPERATURE CHARACTERISTICS

Representative Data for 625Wp

Pmax Temp. Coefficient (%/°C)	-0.29
Voc Temp. Coefficient (%/°C)	-0.23
Isc Temp. Coefficient (%/°C)	0.04
Operating Temp. (°C)	-40 to + 85
Nominal Operating Cell Temp. (°C)	45±2



PACKING CONFIGURATION

Container	40' HQ
Pieces per Pallet	36
Pallet per Container	20
Pieces per Container	720

Note: The graphs are for reference only.
For more details consult FS technical team

ELECTRICAL CHARACTERISTICS (STC)

FST-G12R.132G-XXX	600	605	610	615	620	625	630	635
Maximum Power, P Max (Wp)	600	605	610	615	620	625	630	635
Maximum Voltage, Vmp (V)	41.03	41.14	41.25	41.35	41.45	41.55	41.63	41.74
Maximum Current, Imp (A)	14.64	14.72	14.80	14.89	14.98	15.07	15.16	15.24
Open Circuit Voltage, Voc (V)	48.15	48.27	48.39	48.50	48.61	48.72	48.83	48.95
Short Circuit Current, Isc (A)	15.53	15.56	15.59	15.62	15.65	15.68	15.71	15.74
Module Efficiency (%)	22.21	22.40	22.58	22.77	22.95	23.14	23.32	23.51
Fill Factor (%)	>78%							
Power Tolerence	0 to +4.99 W							
Maximum System Voltage	1500 V (IEC& UL)							
Maximum Series Fuse Rating	30 A							

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

ELECTRICAL CHARACTERISTICS (NOCT)

FST-G12R.132G-XXX	600	605	610	615	620	625	630	635
Maximum Power (W)	441.21	444.91	448.64	452.32	455.94	459.63	463.65	467.07
Maximum Voltage, Vmp (V)	37.36	37.60	37.79	37.97	37.60	37.73	37.85	37.97
Maximum Current, Imp (A)	11.81	11.83	11.87	11.91	12.13	12.18	12.25	12.30
Open Circuit Voltage, Voc (V)	43.66	43.78	44.03	44.28	43.72	43.85	43.97	44.09
Short Circuit Current, Isc (A)	12.63	12.67	12.69	12.69	12.60	12.61	12.62	12.63

* NOCT - Irradiance = 800 W/m², AM = 1.5, Ambient Temperature = 20° C, Wind Speed = 1 m/s, Measuring Tolerance = ±3%

Gain	FST-G12R.132G-XXX	600	605	610	615	620	625	630	635
5%	Max. Power (P max)	629.78	635.06	640.39	645.65	650.81	656.08	661.81	666.70
10%	Max. Power (P max)	659.77	665.30	670.88	676.40	681.80	687.33	693.33	698.45
20%	Max. Power (P max)	719.75	725.78	731.87	737.89	743.78	749.81	756.36	761.95
30%	Max. Power (P max)	779.73	786.27	792.86	799.38	805.76	812.29	819.39	825.44

* 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.
* • The electrical data given here is for reference purpose only. • Please confirm your exact requirements with the sales representative while placing your order.

* T&C Apply