

156 Half Cut Cell

N-Type TOPCon Bifacial

650 Wp
Efficiency
up to
23.24%

650 Wp

Maximum Power Output

23.24%

Maximum Module Efficiency

0~+5^W

Power Output Guarantee

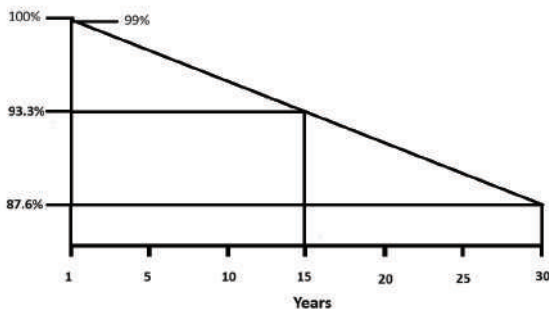
PRODUCT CERTIFICATES

IS 14286 | IEC 61215 |
IEC 61730-1/2 | IEC 62804 | IEC 61701 |
IEC 62716 | IEC 61853

ISO CERTIFICATES

- ISO 9001:2015 - Quality Management System
- ISO 14001:2015 - International Standard for Environmental Management System
- ISO 45001:2018 - International Standard for Occupational Health and Safety

Linear Degradation & Performance Chart



12 YEARS

Product warranty on materials and workmanship

30 YEARS

Industry leading with 87.6% performance output warranty*

< 1 %

First Year Degradation

LID

Negligible LID

LeTID

Anti-LeTID

PID

High PID Resistance

PRODUCT KEY FEATURES

- Higher Efficiency with bifacial gain
- Positive Power Output
- Low LCOE & BOS
- Withstand heavy wind & snow loads
- Superior low-light performance
- Better temperature Coefficient for high-heat conditions
- Low annual linear degradation
- Tier-1 brand Solar Cells
- POE & EPE encapsulation for extended module life
- 6005-T6 alloy aluminium frame materials for robust mechanical stability
- Fully automated manufacturing facilities
- Sustain Dynamic & Static load
- Better Performance at Low Irradiance

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ELECTRICAL PARAMETERS (STC)

MODEL	SGTPI56BG-650	SGTPI56BG-645	SGTPI56BG-640	SGTPI56BG-635	SGTPI56BG-630
Voc(V) Tolerance ± 5%	55.95	55.85	55.75	55.65	55.55
Isc(A) Tolerance ± 5%	14.65	14.6	14.55	14.45	14.35
Vmax (V) Tolerance ± 5%	46.55	46.5	46.45	46.4	46.35
Imax(A) Tolerance ± 5%	13.98	13.88	13.78	13.7	13.6
Pmax(Wp) Tolerance 0 to +3%	650	645	640	635	630
EFF(%) Positive Tolerance	23.24	23.06	22.88	22.7	22.52

*STC: Irradiance 1000W/m², Temperature 25°C, Spectrum at AM 1.5

ELECTRICAL PARAMETERS (NMOT/NOCT)

MODEL	SGTPI56BG-650	SGTPI56BG-645	SGTPI56BG-640	SGTPI56BG-635	SGTPI56BG-630
Voc(V)	52.9	52.8	52.7	52.6	52.5
Isc(A)	11.86	11.82	11.78	11.7	11.62
Vmax(V)	44	43.9	43.7	43.6	43.6
Imax(A)	11.23	11.17	11.12	11.07	10.98
Pmax(Wp)	494	490	486	482	478
EFF(%)	22.1	21.9	21.75	21.6	21.4

*NMOT/NOCT: Irradiance 800 W/m², Ambient Temperature at NMOT/NOCT, Spectrum at AM 1.5

POWER GAIN

	MODEL	SGTPI56BG-650	SGTPI56BG-645	SGTPI56BG-640	SGTPI56BG-635	SGTPI56BG-630
5%	PowerOutput(Wp)	683	677	672	667	662
	Module eff. (%)	24.41%	24.22%	24.03%	23.84%	23.66%
10%	PowerOutput(Wp)	715	710	704	699	693
	Module eff. (%)	25.57%	25.37%	25.17%	24.98%	24.78%
15%	PowerOutput(Wp)	748	742	736	730	725
	Module eff. (%)	26.73%	26.52%	26.32%	26.11%	25.91%
20%	PowerOutput(Wp)	780	774	768	762	756
	Module eff. (%)	27.89%	27.67%	27.46%	27.24%	27.03%
25%	PowerOutput(Wp)	813	806	800	794	788
	Module eff. (%)	29.07%	28.82%	28.60%	28.39%	28.17%

*Note: Extra Power Gain from rear side & front side at STC depends on mounting structure (height, tilt angles etc.) and reflectivity of ground. Bi-faciality Factor: 80±5%

DESIGN SPECIFICATION

Cell Type/No of Cell	156 Half cut, 16BB, N-Type TOPCon Bifacial solar cell
Dimension	2466x1134x30 mm
Weight	35.0 Kgs ± 3%
Front Cover	Low Iron, ARC, HS Tempered Glass 2.0 mm
Encapsulation	PID resistant and UV resistant Polymeric Film
Back cover	Low Iron, HS Tempered Glass 2.0mm
Frame	AA15 Anodized aluminium alloy
Diode	03 nos. Bypass Diodes
Junction box	IP68 Split JB
Cable	4 sq. mm, 400 to 1400 mm on request

MAXIMUM RATING

System Voltage	1500VDC
Fuse Rating	30A
Application Class	A
Safety Class	II
Snow Load	5400 Pa
Wind Load	2400 Pa
Bifaciality Factor	80±5%

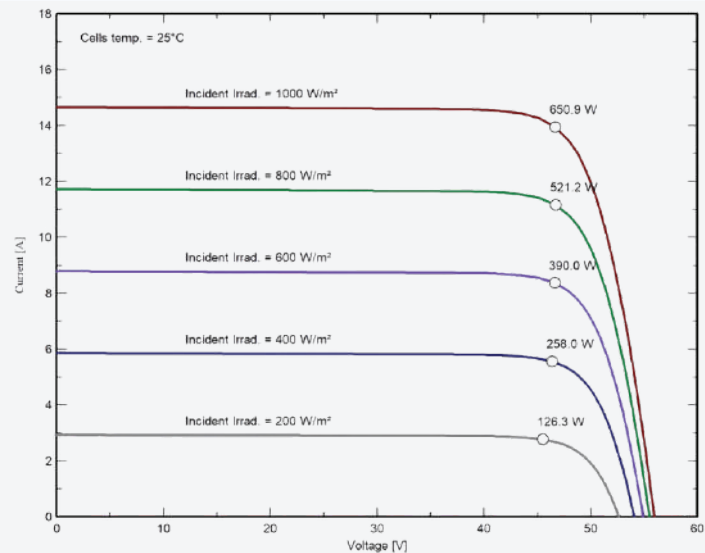
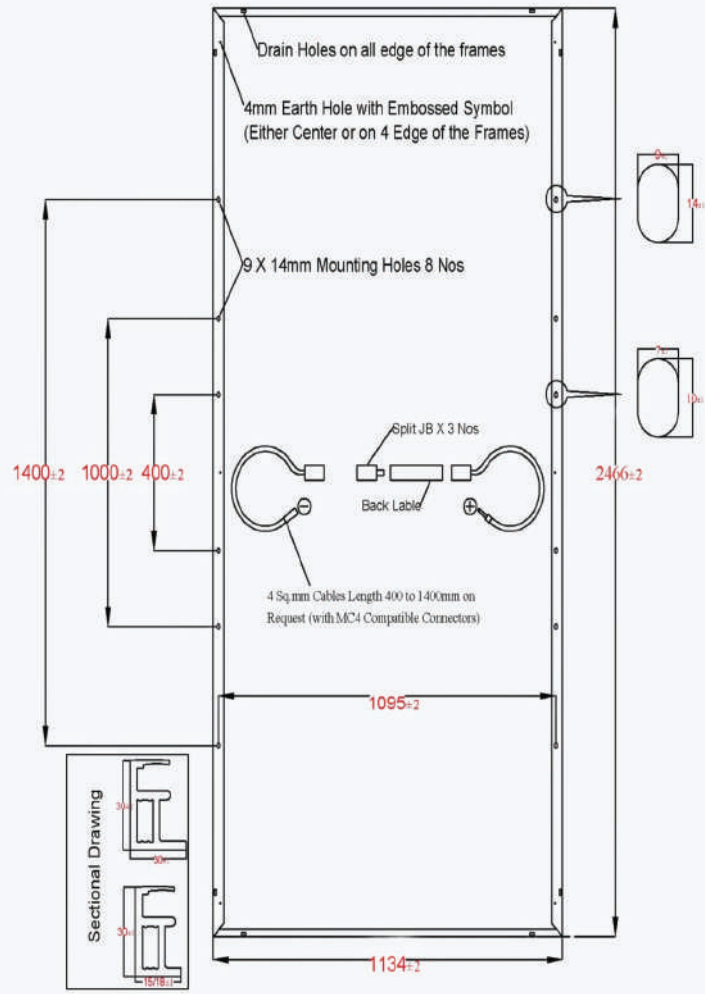
TEMPERATURE RATING

α(Isc):	+0.05%/°C
β(Voc):	-0.26%/°C
γ(P max):	-0.30%/°C
NOMT/NOCT	45±2°C
Operating Range	-40°C to 85°C
Power Binning	0 to +4.99 W

STACKING STANDARD

STACKING STANDARD	40 FT
No. of Modules per Vehicle	680 Nos.
No. of Pallet per Vehicle	20 Pallets
Module Per Pallet	34 Nos.
Per Pallet Weight	Max. 1255 Kgs.

Rear / Back View



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