

# 144 Half Cut Cell

N-Type TOPCon Bifacial

## 610 Wp

Maximum Power Output

## 23.61%

Maximum Module Efficiency

## 0~+5<sup>W</sup>

Power Output Guarantee

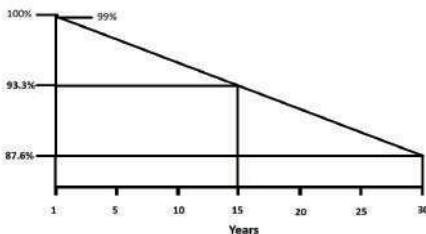
### PRODUCT CERTIFICATES

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



The graphs are for reference purposes only.  
Please consult the Ganesh Green Bharat Limited technical team for further clarification.

\*Third Party Insurance by  
NSE SME Listed (Stock Code : GGBL)



**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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## N-Type TOPCon Bifacial

### ELECTRICAL PARAMETERS (STC)

MODEL	SGTPI444BC-610	SGTPI444BC-605	SGTPI444BC-600	SGTPI444BC-595	SGTPI444BC-590	SGTPI444BC-585	SGTPI444BC-580
Voc(V) Tolerance ± 5%	52.5	52.00	51.5	51.45	51.4	51.35	51.25
Isc(A) Tolerance ± 5%	14.70	14.65	14.60	14.55	14.50	14.45	14.35
Vmax (V) Tolerance ± 5%	43.60	43.40	43.20	43	42.80	42.75	42.70
Imax(A) Tolerance ± 5%	14.00	13.95	13.90	13.85	13.80	13.70	13.60
Pmax(Wp) Tolerance 0 to +3%	610	605	600	595	590	585	580
EFF(%) Positive Tolerance	23.61	23.42	23.23	23.03	22.84	22.65	22.45

\*STC: Irradiance 1000W/m<sup>2</sup>, Temperature 25°C, Spectrum at AM 1.5

### ELECTRICAL PARAMETERS (NMOT/NOCT)

MODEL	SGTPI444BC-610	SGTPI444BC-605	SGTPI444BC-600	SGTPI444BC-595	SGTPI444BC-590	SGTPI444BC-585	SGTPI444BC-580
Voc(V)	48.8	48.75	48.7	48.65	48.6	48.55	48.50
Isc(A)	11.90	11.86	11.82	11.78	11.74	11.70	11.62
Vmax (V)	40.90	40.80	40.70	40.50	40.40	40.3	40.20
Imax(A)	11.29	11.25	11.20	11.17	11.10	11.05	10.98
Pmax(Wp)	462	459	456	452	448	445	441
EFF(%)	22.35	22.10	22.5	21.90	21.70	21.55	21.40

\*NMOT/NOCT : Irradiance 800 W/m<sup>2</sup>, Ambient Temperature at NMOT/NOCT, Spectrum at AM 1.5

### POWER GAIN

	MODEL	SGTPI444BC-610	SGTPI444BC-605	SGTPI444BC-600	SGTPI444BC-595	SGTPI444BC-590	SGTPI444BC-585	SGTPI444BC-580
5%	PowerOutput(Wp)	640	635	630	625	620	614	609
	Module eff. (%)	24.79%	24.58%	24.38%	24.19%	24.00%	23.76%	23.57%
10%	PowerOutput(Wp)	671	665	660	655	649	644	638
	Module eff. (%)	25.97%	25.74%	25.55%	25.34%	25.12%	24.91%	24.70%
15%	PowerOutput(Wp)	701	695	690	684	679	673	667
	Module eff. (%)	27.15%	26.90%	26.71%	26.49%	26.27%	26.04%	25.82%
20%	PowerOutput(Wp)	732	726	720	714	708	702	696
	Module eff. (%)	28.33%	28.10%	27.87%	27.64%	27.41%	27.18%	26.94%
25%	PowerOutput(Wp)	762	756	750	744	738	731	725
	Module eff. (%)	29.51%	29.27%	29.03%	28.79%	28.55%	28.31%	28.07%

\*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	144 Half Cut, 16BB, N-Type TOPCon Bifacial Solar Cell
Dimension	2278x1134x30 mm
Weight	32.5 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 aluminum alloy
Diode	03 nos. Bypass Diodes
Junction box	IP68 Split JB
Cable	4 sq. mm, 400 to 1400 mm on request

### MAXIMUM RATING

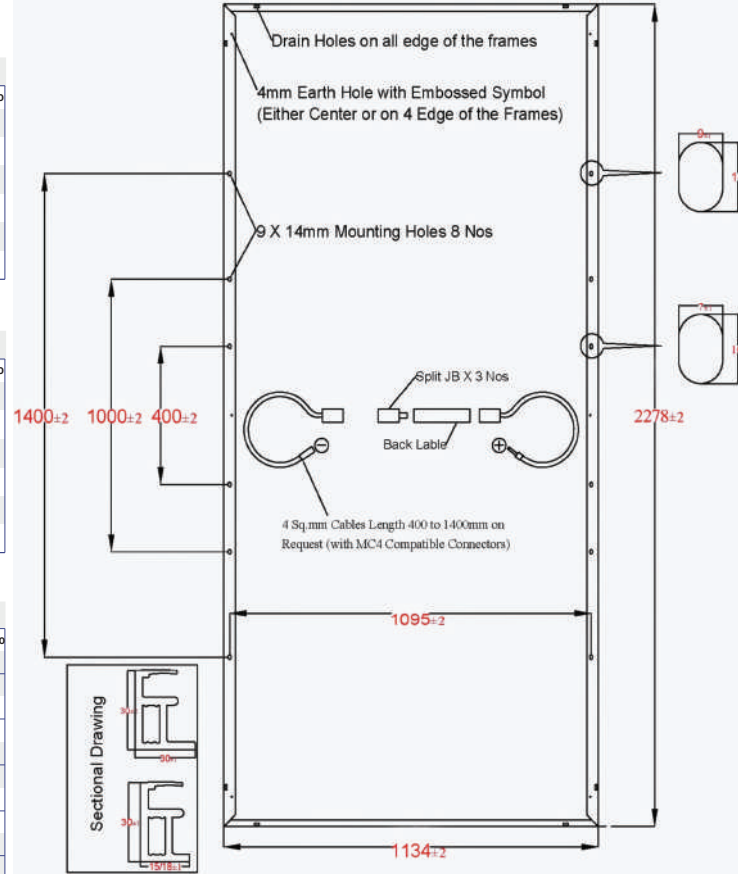
System Voltage	1500VDC
Fuse Rating	30A
Application Class	A
Safety Class	II
Snow Load	5400 Pa
Wind Load	2400 Pa
Bifaciality Factor	80±5%

### TEMPERATURE RATING

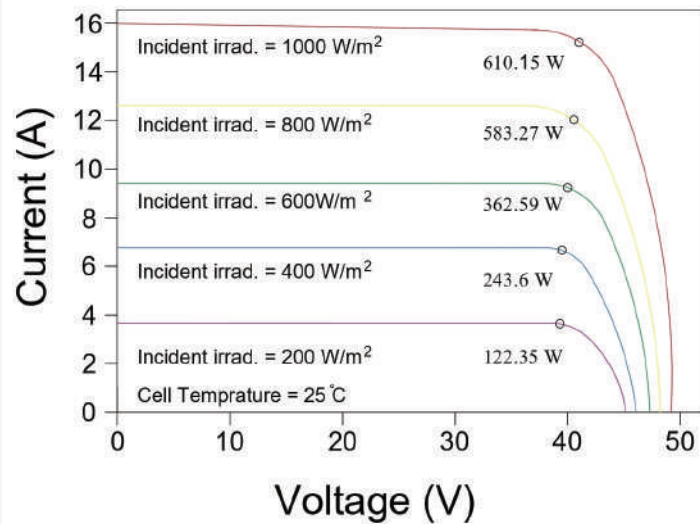
α(Isc):	+0.05%/°C
β(Voc):	-0.26%/°C
γ(P max):	-0.3%/°C
NOMT/NOCT	45±2°C
Operating Range	-40°C to 85°C
Power Binning	0 to +4.99 W

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.1170 Kgs.

### Rear / Back View



### IV Curve Variation With Irradiance



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