

# TP SOLAR LIMITED

## TP630LG10NB (Glass – Glass)

### TOPCON BIFACIAL SOLAR MODULE



## Illuminating a Sustainable Future



Made in India within a state-of-the-art module production facility.



Low risk of failure - A warranty claim rate of under **0.07%**.



Certified to withstand snow loads of up to **5400Pa**.



Industry leading heavy-duty frame **6005-T6** grade.



PID resistant module.



IP68 rated junction box.



Warranties are subject to the terms and conditions as per the TP Solar warranty document. Certification may vary by module type.

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## 22.62%

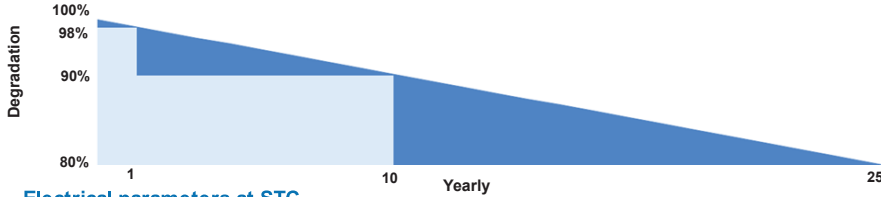
Max Module Efficiency

## 630Wp

Max Power Output

## 0 ~ +5

Power Tolerance



### Electrical parameters at STC

	600	605	610	615	620	625	630
Maximum power - Pmax (W)	600	605	610	615	620	625	630
Power tolerance (W)	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5
Module efficiency ( $\eta$ ) (%)	21.54	21.72	21.90	22.08	22.26	22.44	22.62
Voltage at maximum power - Vmp (V)	46.20	46.37	46.54	46.71	46.88	47.04	47.20
Current at maximum power - Imp (A)	12.99	13.05	13.11	13.17	13.23	13.29	13.35
Open circuit voltage - Voc (V)	55.01	55.21	55.42	55.61	55.81	56.01	56.21
Short circuit current - Isc (A)	13.77	13.84	13.91	13.98	14.05	14.12	14.19

STC : Irradiance 1000 W/m<sup>2</sup>, AM 1.5 and Cell temperature 25°C

### Electrical Parameters at 10% Bifacial gain

	660	666	671	677	682	688	693
Maximum power - Pmax (W)	660	666	671	677	682	688	693
Voltage at maximum power - Vmp (V)	46.23	46.40	46.57	46.74	46.91	47.07	47.23
Current at maximum power - Imp (A)	14.28	14.34	14.41	14.47	14.54	14.61	14.67
Open circuit voltage - Voc (V)	55.04	55.24	55.44	55.64	55.84	56.04	56.24
Short circuit current - Isc (A)	15.18	15.25	15.32	15.39	15.46	15.53	15.60

Bifacial factor 80 ± 5% and bi-facial power gain depends on the plant design, location and albedo.

### Electrical Parameters at NOCT

	450	454	458	461	465	469	473
Maximum power - Pmax (W)	450	454	458	461	465	469	473
Voltage at maximum power - Vmp (V)	43.43	43.59	43.75	43.91	44.06	44.22	44.37
Current at maximum power - Imp (A)	10.26	10.44	10.49	10.53	10.58	10.63	10.68
Open circuit voltage - Voc (V)	52.26	52.45	52.64	52.83	53.02	53.21	53.40
Short circuit current - Isc (A)	11.15	11.21	11.27	11.32	11.38	11.44	11.49

NOCT : Irradiance 800 W/m<sup>2</sup>, AM 1.5, Ambient temperature 20°C and Wind speed 1 m/s

### Temperature Coefficient Characteristics

NOCT(°C)	45±2
Temperature Coefficient of Pmax (% / °C)	-0.31
Temperature coefficient of Voc (% / °C)	-0.26
Temperature coefficient of Isc (% / °C)	0.046

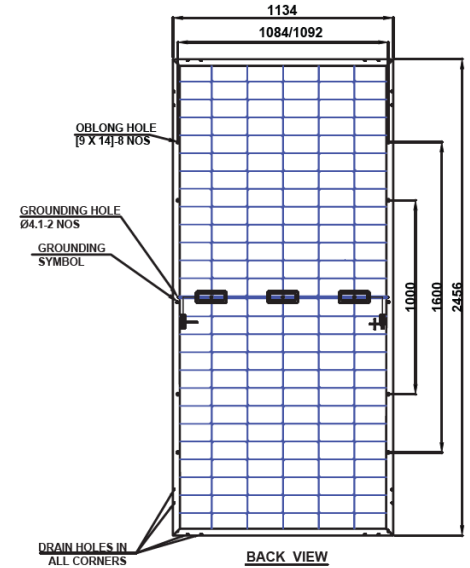
### Operating Conditions

Maximum system voltage (V)	1500
Application class	A
Maximum series fuse rating (A)	25
Limited reverse current (A)	25
Operating temperature range (°C)	-40 to 85
Maximum static load (Wind/Snow) Pa	2400 /5400

### Module General Characteristics

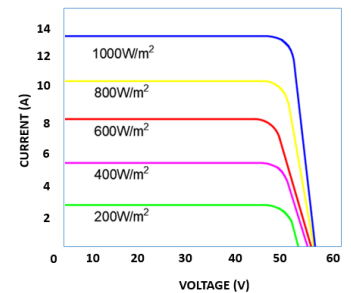
Module dimensions L X W X H(mm)	2456 x 1134 x 35 / 2456 x 1134 x 30
Module weight (approx ) (Kg)	36±1
No of cells & size	156 Nos/[182 x91]mm
Frame materials	Anodized Aluminium
Front glass/ Back glass	2mm each side
Junction box	IP68
Cable connector	MC4/MC4 Compatible

### Dimensions (mm)

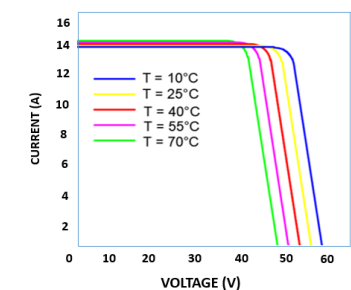


### IV Characteristics

#### IV CURVE AT MULTIPLE IRRADIANCE



#### IV CURVE AT MULTIPLE TEMPERATURE



### Packaging Details

No. of Modules per pallet	31
No. of Boxes per 40ft Container	16
Box Weight (Kg)	1250
Box Dimensions L X W X H(mm)	2520 x 1145 x 1280

### Testing and Tolerances

- Module dimension tolerance is ±2 mm, and junction box cable length tolerance is 0/+50 mm.
- Electrical data measurement uncertainty is ±3%.
- The bi-facial factor is 80% ±5%.
- Bi-facial power gain depends on the plant design and location.
- Box dimensions are subject to change, with a tolerance of ±10 mm.
- All specifications are subject to change without prior notice.