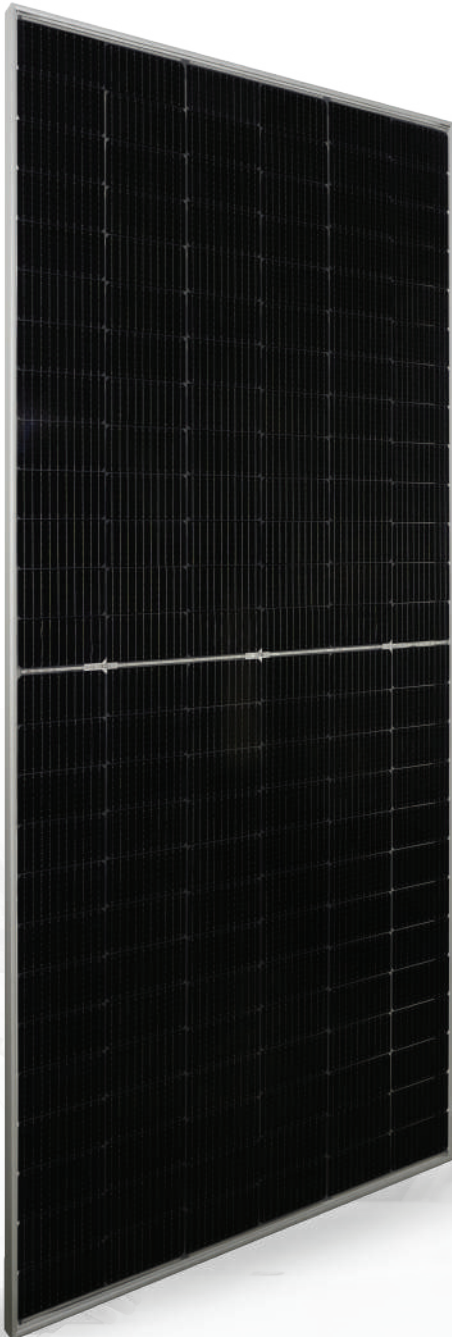


# TP SOLAR LIMITED

## 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.

# TP SOLAR LIMITED

22.62%

Max Module Efficiency

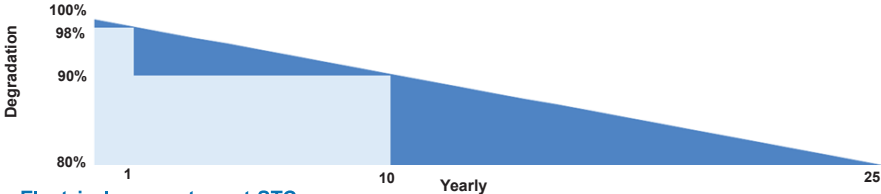
630Wp

Max Power Output

0 ~ +5

Power Tolerance

Yearly Degradation Chart



### Electrical parameters at STC

|                                    |        |        |        |        |        |        |        |
|------------------------------------|--------|--------|--------|--------|--------|--------|--------|
| 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 (η%)             | 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/m², AM 1.5 and Cell temperature 25°C

### Electrical Parameters at 10% Bifacial gain

|                                    |       |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| 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

|                                    |       |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| 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/m², AM 1.5 , Ambient temperature 20°C and Wind speed 1m/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 |

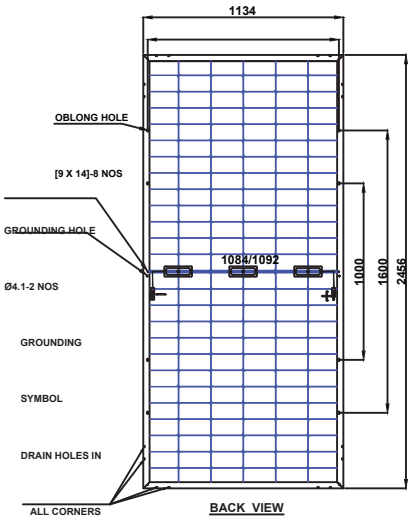
### Operating Conditions

|                                    |            |
|------------------------------------|------------|
| 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

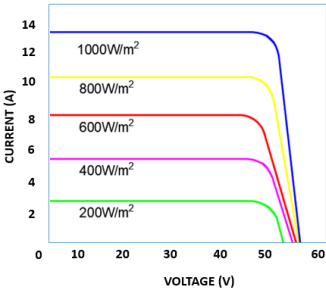
|                                 |                                     |
|---------------------------------|-------------------------------------|
| Module dimensions L X W X H(mm) | 2456 x 1134 x 35 / 2456 x 1134 x 30 |
| Module weight (approx ) (Kg)    | 36±1                                |
| No 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)

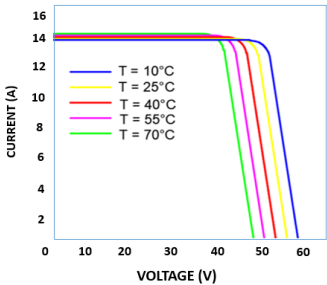


### IV Characteristics

#### 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.