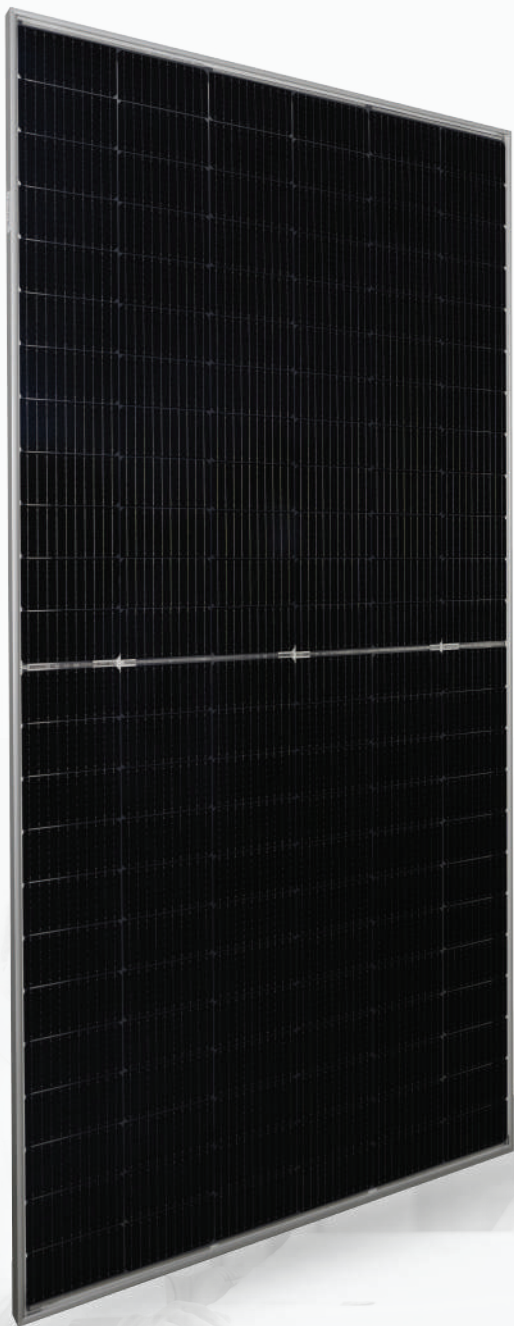


TP SOLAR LIMITED

TP580HG10NB (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.



Product warranty on material and workmanship.



Linear power output warranty

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

TP SOLAR LIMITED

22.45%

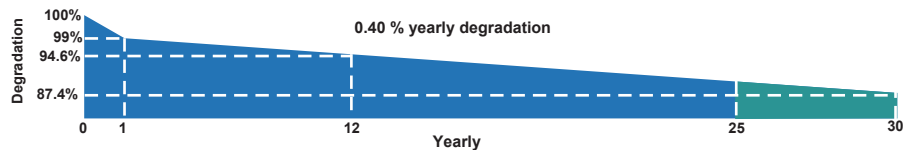
Max Module Efficiency

580Wp

Max Power Output

0 ~ +5

Power Tolerance



Electrical parameters at STC

Maximum power - Pmax (W)	550	555	560	565	570	575	580
Power tolerance (W)	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5	0 ~ +5
Module efficiency (η%)	21.29	21.48	21.68	21.87	22.07	22.26	22.45
Voltage at maximum power - Vmp (V)	42.60	42.79	42.98	43.16	43.37	43.53	43.71
Current at maximum power - Imp (A)	12.91	12.97	13.03	13.09	13.15	13.21	13.27
Open circuit voltage - Voc (V)	51.11	51.31	51.51	51.71	51.91	52.11	52.31
Short circuit current - Isc (A)	13.69	13.76	13.83	13.90	13.97	14.04	14.11

STC : Irradiance 1000 W/m², AM 1.5 and Cell temperature 25°C

Electrical Parameters at 10% Bifacial gain

Maximum power - Pmax (W)	605	611	616	622	627	633	638
Voltage at maximum power - Vmp (V)	42.63	42.82	43.01	43.19	43.40	43.56	43.74
Current at maximum power - Imp (A)	14.19	14.26	14.32	14.39	14.45	14.52	14.59
Open circuit voltage - Voc (V)	51.14	51.34	51.54	51.74	51.94	52.14	52.34
Short circuit current - Isc (A)	14.98	15.05	15.13	15.21	15.28	15.36	15.43

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

Electrical Parameters at NOCT

Maximum power - Pmax (W)	413	416	420	424	428	431	435
Voltage at maximum power - Vmp (V)	40.05	40.22	40.40	40.57	40.77	40.92	41.09
Current at maximum power - Imp (A)	10.20	10.38	10.42	10.47	10.52	10.57	10.62
Open circuit voltage - Voc (V)	48.55	48.74	48.93	49.12	49.31	49.50	49.69
Short circuit current - Isc (A)	11.09	11.15	11.20	11.26	11.32	11.37	11.43

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

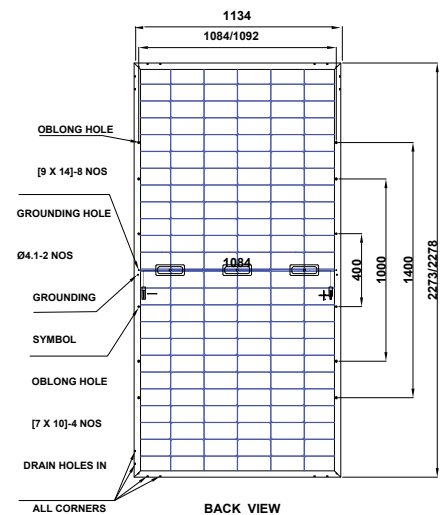
Operating Conditions

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

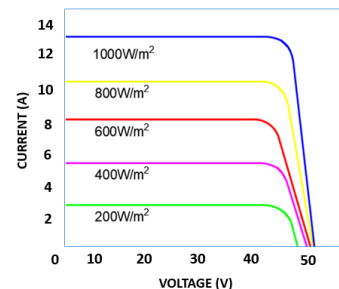
Module dimensions L X W X H(mm)	2278 x 1134 x 35 / 2278 x 1134 x 30
Module weight (approx) (Kg)	33±1
No of cells & size	144 Nos/[182 x91]mm
Frame materials	Anodized Aluminium
Front glass/ Back glass	2mm each side
Junction box	IP68
Cable connector	MC4/MC4 Compatible

Dimensions (mm)

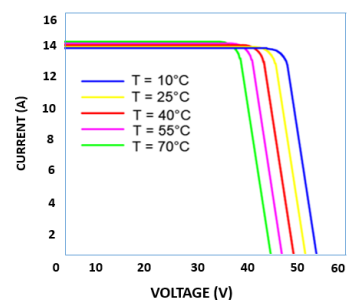


IV Characteristics

IV CURVE AT MULTIPLE IRRADIANCE



IV CURVE AT MULTIPLE TEMPERATURE



Packaging Details

No. of Modules per pallet	31
No. of Boxes per 40ft Container	20
Box Weight (Kg)	1100
Box Dimensions L X W X H(mm)	2337 x 1145 x 1280

Testing and Tolerances

*Irradiance of 1000W/m², Spectrum of AM 1.5 and Cell temperature of 25 °C.

** Measurement tolerance on Pmax±3%

- Tolerance for dimensions±3mm and Tolerance for cable length 0/ +50mm.
- Bi-facial factor [80±5]%
- BSTC: Bi-facial power gain depends on the plant design and location
- Frame : width & flange 30mm/35m
- Box dimensions are subject to change & Box Dimension Tolerance ±10mm Listed specifications are subject to change without prior notice.