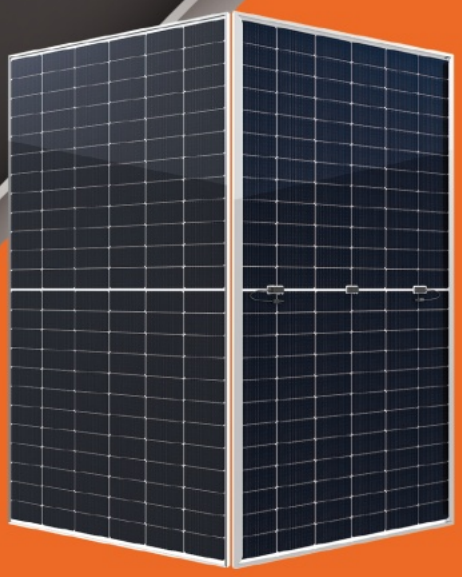
GPSOLAR

Global Smart Solar Energy Service Provider

N-Type

182 Mono-Bifacial Module
GPM10TG-600(144)

580W-600W



Maximum output power	Maximum efficiency	Power tolerance
600W	23.22%	0~+3%

Key Features

SMBB Technology
Better light trapping and current collection to improve module power output and reliability.

Hot 2.0 Technology
The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.

Duplex power generation
The power gain on both sides increases with the light received on the back, up to 25%.

Enhanced Mechanical Load
2400 Pa
5400 Pa
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).

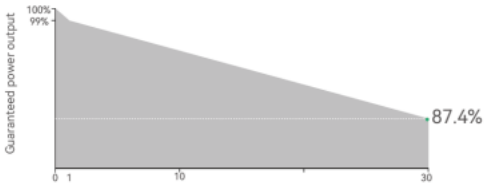
Quality System

IEC 61215-1:2021,IEC 61730-1:2023
IEC61701 / IEC62716 / IEC62804
ISO9001:2015:Quality Management System
ISO14001:2015:Environment Management System
ISO45001:2018:Occupational Health and Safety Management Systems

Product Certifications

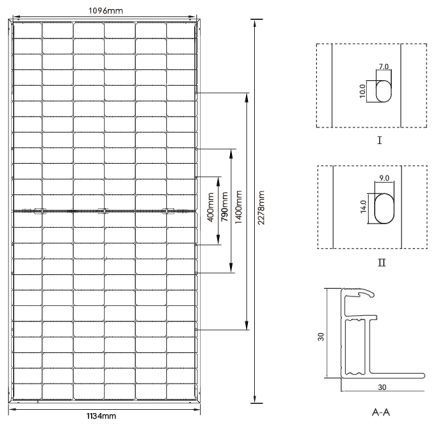
Linear performance warranty

12 Year Product Warranty
30 Year Linear Warranty
0.4% Annual Degradation Over 30 Years

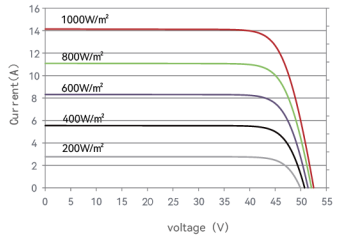


ZHEJIANG G&P SUN ENERGY TECHNOLOGY CO.,LTD.
Add:NO.2888, JINDING ROAD, JINDONG DISTRICT, JINHUA CITY, ZHEJIANG PROVINCE,321000,China
+86 15397519637 / bell@eurosolargp.com / www.gpsolarpv.com

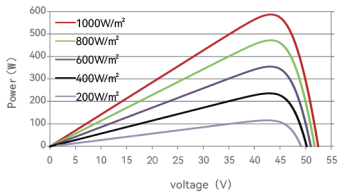
Engineering Drawings



Electical Performance(590W)



I-V curve



P-V curve

Electrical Parameters (STC*)

Maximum Power(W)	580	585	590	595	600
Maximum Power Voltage(V)	44.02	44.22	44.43	44.63	44.83
Maximum Power Current(A)	13.18	13.23	13.28	13.33	13.38
Open Circuit Voltage(V)	51.95	52.16	52.37	52.59	52.81
Short Circuit Current(A)	13.84	13.89	13.94	13.99	14.03
Module Efficiency(%)	22.45	22.65	22.84	23.03	23.22
Power tolerance			0~+3%		

*Irradiance 1000W/m², Module Temperature 25℃, Air Mass 1.5

Mechanical Parameters

Cell Type	182×91mm N-Type
Number of Cells	144cells (2x72)
Dimensions	2278×1134×30mm
Weight	30KG
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Silver, anodized aluminium alloy
J-Box	IP68 Rated, MC4 Compatible
Output cable	4 mm²,300 mm standard

Electrical Parameters (NOCT*)

Maximum Power(W)	432.1	435.8	439.6	443.3	447.0
Maximum Power Voltage(V)	40.74	40.92	41.12	41.30	41.49
Maximum Power Current(A)	10.61	10.65	10.69	10.73	10.77
Open Circuit Voltage(V)	48.08	48.27	48.47	48.67	48.87
Short Circuit Current(A)	11.14	11.18	11.22	11.26	11.29

* Irradiance 800W/m², Ambient Temperature 20℃, Wind Speed 1m/s

Temperature Coefficient

Nominal Operating Cell Temperature (NOCT)	45±2℃
Temperature Coefficient of Isc	0.045%/℃
Temperature Coefficient of Voc	-0.25%/℃
Temperature Coefficient of Pmax	-0.29%/℃

Backside Power Gain (For 590W)

Backside Power Gain(%)	10%	15%	20%	25%	30%
Maximum Power(Pmax/W)	649.0	678.5	708.0	737.5	767.0
Open Circuit Voltage(Voc/V)	52.37	52.37	52.41	52.41	52.43
Short Circuit Current(Isc/A)	15.36	16.06	16.75	17.44	18.13
Maximum Power Voltage(Vmp/V)	44.43	44.43	44.50	44.50	44.52
Maximum Power Current(Imp/A)	14.61	15.27	15.91	16.57	17.23

Application Parameters

Operational Temperature(℃)	-40℃~+85℃
Maximum System Voltage	1500V DC
Max Series Fuse Rating	25A
Wind/ Snow Load	2400Pa/5400Pa
Packaging Configuration	37PCS/PLT,740PCS/40HQ

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Add:NO.2888, JINDING ROAD, JINDONG DISTRICT, JINHUA CITY, ZHEJIANG PROVINCE,321000,China

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