








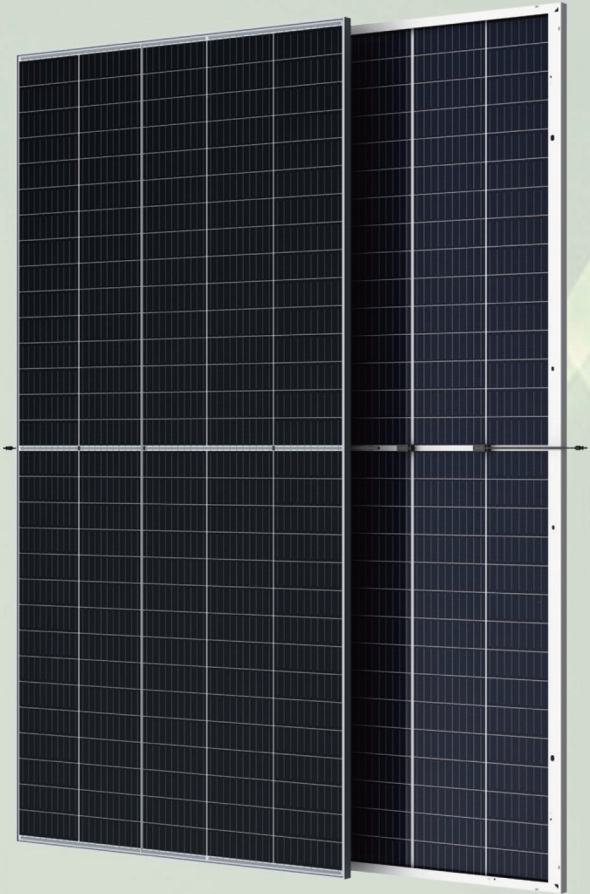




■ P-Type Solar Module

KEY FEATURES

-  Excellent performance in low-light environments
-  High quality junction box and connector systems
-  100% inspection, to guarantee the reliability of solar systems
-  Lower temperature
-  Anti PID
-  Enhanced safety by excellent fire resistance
-  Perfect for sandy, snowy and high latitude regions
-  Lower operating temperature, more reliable
-  Cutcell, Less internal power loss, Less mismatch loss



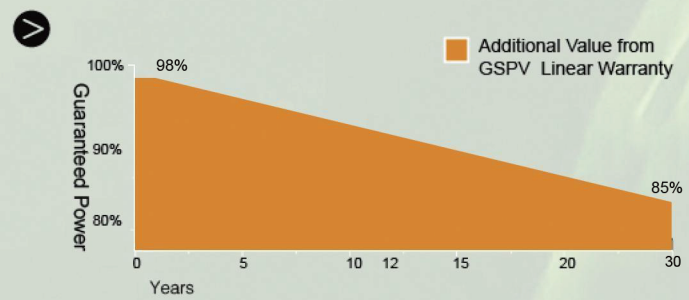
GSPV-M12/150H-480W-505W 480~505 Watt

➤ 210mm 150 Cells PV Solar Module

BLACK *BLACK FRAME/BLACK BACK-SHEET PRODUCTS ARE AVAILABLE UPON REQUEST

➤

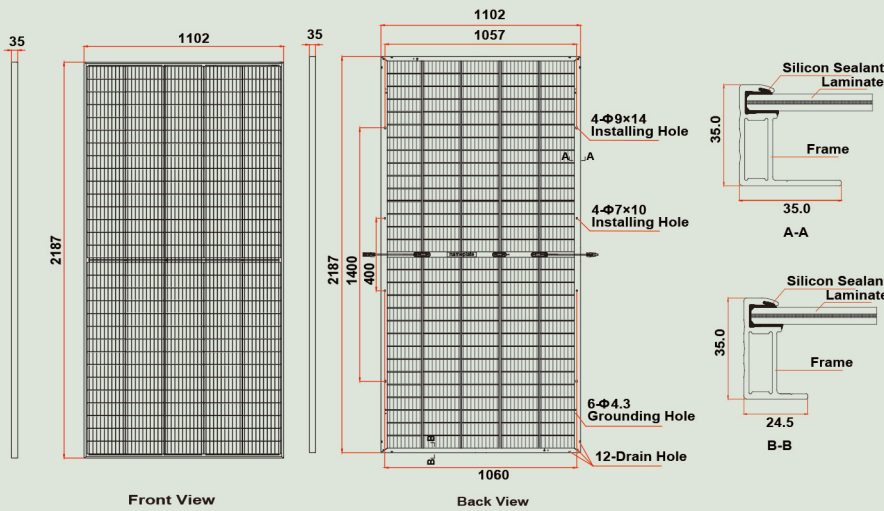
12 Years Product Warranty	30 Years Linear Power Warranty	0.45 % Annual Power Attenuation	
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IEC61215
IEC61730
UL61215
UL61730



DIMENSIONS OF PV MODULE(mm)



TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P _{MAX}	- 0.34%/°C
Temperature Coefficient of V _{OC}	- 0.25%/°C
Temperature Coefficient of I _{SC}	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
Max Series Fuse Rating	25A

WARRANTY

12 year Product Workmanship Warranty
30 year Power Warranty
2% first year degradation

0.45% Annual Power Attenuation

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 31 pieces
Modules per 40' container: 620 pieces

ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)*	480	485	490	495	500	505
Power Tolerance-P _{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V _{MPP} (V)	42.2	42.5	42.8	43.1	43.4	43.7
Maximum Power Current-I _{MPP} (A)	11.38	11.42	11.45	11.49	11.53	11.56
Open Circuit Voltage-V _{OC} (V)	50.7	50.9	51.1	51.3	51.5	51.7
Short Circuit Current-I _{SC} (A)	11.97	12.01	12.05	12.09	12.13	12.17
Module Efficiency η m (%)	19.9	20.1	20.3	20.5	20.7	21.0

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

Electrical characteristics with different power bin(reference to 10% Irradiance ratio)

Total Equivalent power -P _{MAX} (Wp)	514	519	524	530	535	540
Maximum Power Voltage-V _{MPP} (V)	42.2	42.5	42.8	43.1	43.4	43.6
Maximum Power Current-I _{MPP} (A)	12.18	12.22	12.24	12.29	12.34	12.39
Open Circuit Voltage-V _{OC} (V)	50.7	50.9	51.1	51.3	51.5	51.7
Short Circuit Current-I _{SC} (A)	12.81	12.85	12.89	12.94	12.98	13.02
Irradiance ratio (rear/front)	10%					

Power Bifaciality:70±5%.

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	362	366	369	373	377	381
Maximum Power Voltage-V _{MPP} (V)	38.7	40.0	40.2	40.5	40.7	41.0
Maximum Power Current-I _{MPP} (A)	9.11	9.15	9.18	9.22	9.26	9.29
Open Circuit Voltage-V _{OC} (V)	47.7	47.9	48.0	48.2	48.4	48.5
Short Circuit Current-I _{SC} (A)	9.65	9.68	9.71	9.74	9.78	9.81

NOCT:Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

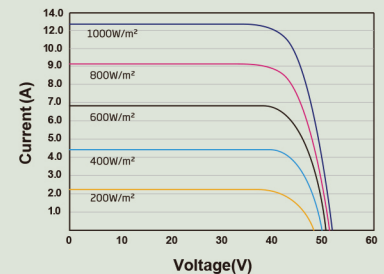
MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	150 cells
Module Dimensions	2187×1102×35 mm (86.10×43.39×1.38 inches)
Weight	30.1 kg (66.4 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE/EVA
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)

Frame	35mm(1.38 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: 280/280 mm(11.02/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4*

*Please refer to regional datasheet for specified connector.

I-V CURVES OF PV MODULE(500W)



P-V CURVES OF PV MODULE(500W)

