








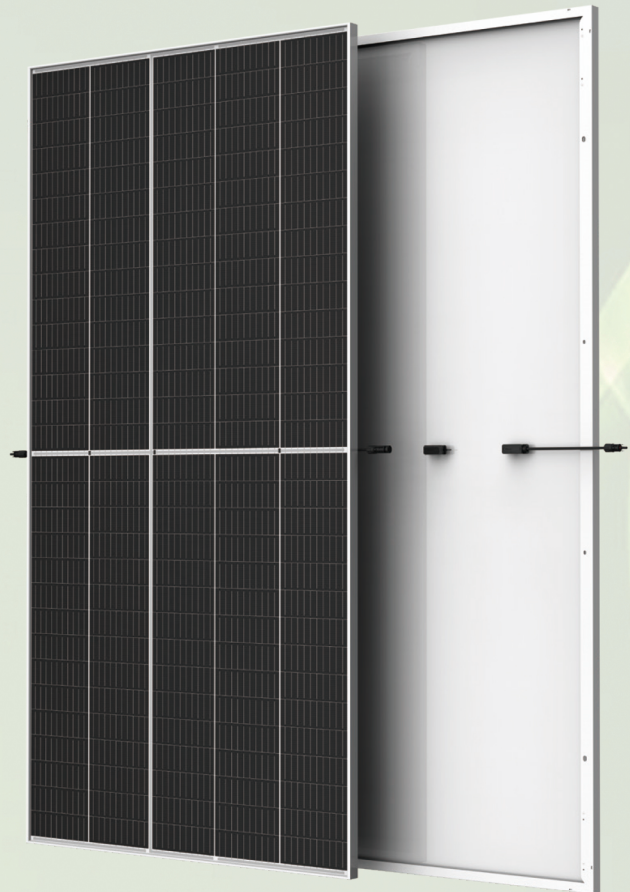




■ P-Type Solar Module

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



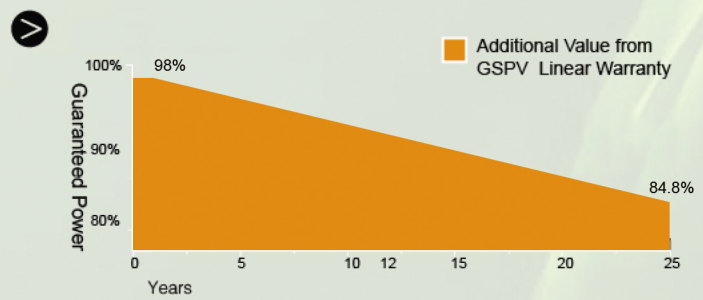
GSPV-M12/150H-490W-515W 490~515 Watt

➤ 210mm 150 Cells PV Solar Module

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

➤

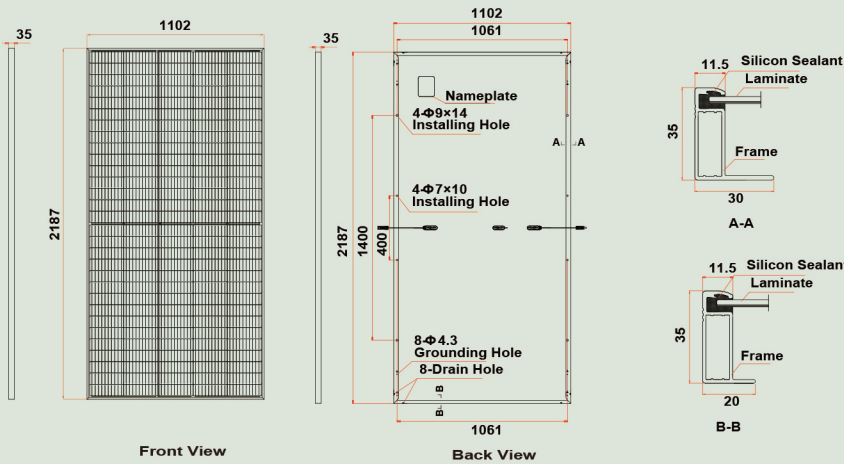
12 Years Product Warranty	25 Years Linear Power Warranty	0.55 % Annual Power Attenuation	
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IEC61215
IEC61730
UL61215
UL61730



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	20A

WARRANTY

12 year Product Workmanship Warranty
25 year Power Warranty
2% first year degradation
0.55% Annual Power Attenuation
(Please refer to product warranty for details)

PACKAGING CONFIGURATION

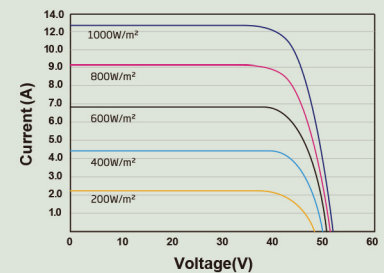
Modules per box: 31 pieces
Modules per 40' container: 620 pieces

ELECTRICAL DATA (STC)

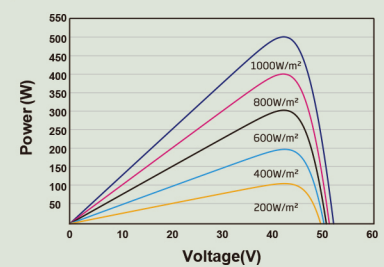
Peak Power Watts-P _{MAX} (Wp)*	490	495	500	505	510	515
Power Tolerance-P _{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V _{MPP} (V)	42.4	42.6	42.8	43.0	43.2	43.4
Maximum Power Current-I _{MPP} (A)	11.56	11.63	11.69	11.75	11.81	11.87
Open Circuit Voltage-V _{OC} (V)	51.3	51.5	51.7	51.9	52.1	52.3
Short Circuit Current-I _{SC} (A)	12.14	12.21	12.28	12.35	12.42	12.49
Module Efficiency η _m (%)	20.3	20.5	20.7	21.0	21.2	21.4

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

I-V CURVES OF PV MODULE(500W)



P-V CURVES OF PV MODULE(500W)



ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	369	373	377	381	385	388
Maximum Power Voltage-V _{MPP} (V)	40.0	40.2	40.4	40.6	40.5	40.7
Maximum Power Current-I _{MPP} (A)	9.22	9.28	9.33	9.38	9.50	9.53
Open Circuit Voltage-V _{OC} (V)	48.2	48.4	48.6	48.8	49.0	49.2
Short Circuit Current-I _{SC} (A)	9.78	9.84	9.90	9.95	10.01	10.06

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	26.3 kg (58.0 lb)
Glass	3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA
Backsheet	White
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: N 280mm/P 280mm(11.02/11.02inches) Length can be customized
Connector	MC4 EVO2 / TS4*

*Please refer to regional datasheet for specified connector.