



■ 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



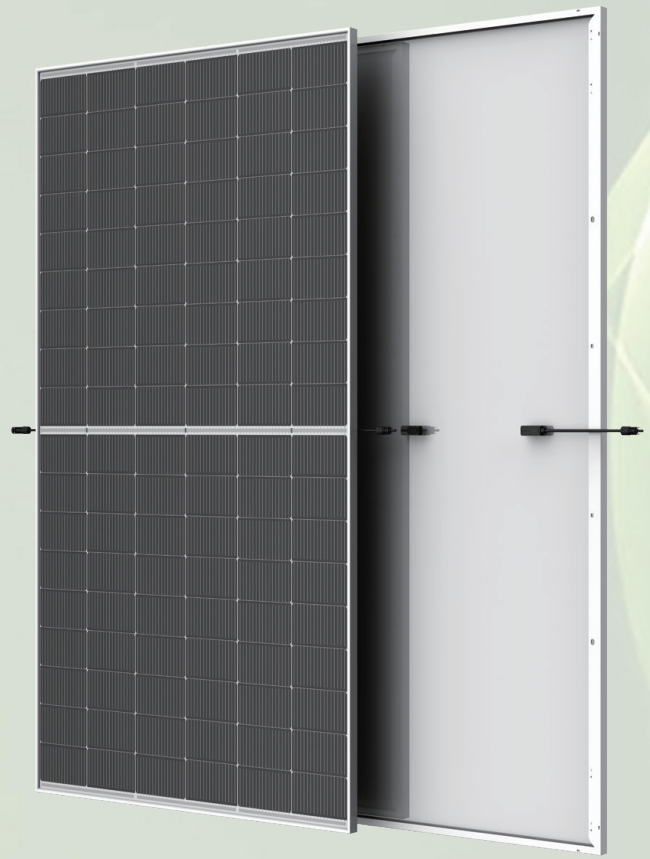
Perfect for sandy, snowy and high latitude regions



Lower operating temperature, more reliable



Cutcell, Less internal power loss, Less mismatch loss



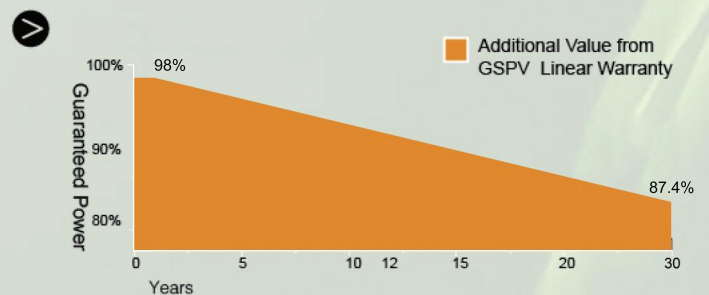
GSPV-M12/108H-475W-505W 475~505 Watt

➤ 210mm 108 Cells PV Solar Module

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

➤

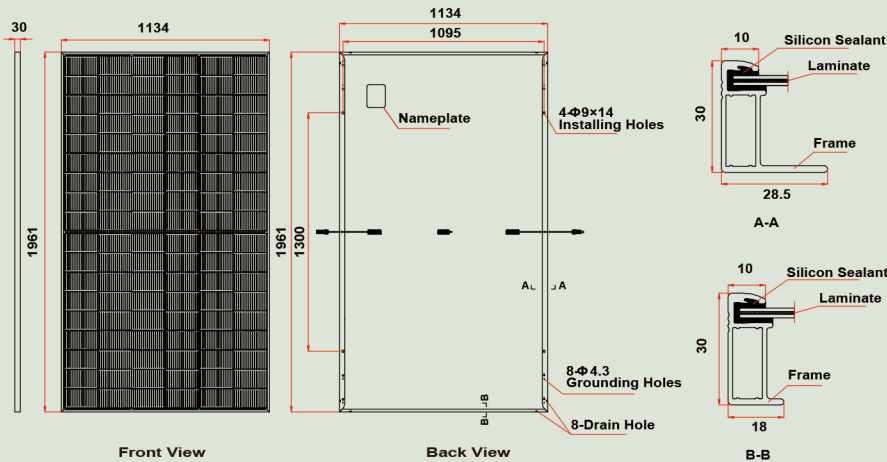
15 Years Product Workmanship Warranty	30 Years Power Warranty	0.40 % Annual Power Attenuation	CPIC CERTIFIED
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IEC61215
IEC61730
UL61215
UL61730



DIMENSIONS OF PV MODULE(mm)



TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P _{MAX}	- 0.29%/°C
Temperature Coefficient of V _{OC}	- 0.24%/°C
Temperature Coefficient of I _{SC}	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	30A

WARRANTY

15 year Product Workmanship Warranty
30 year Power Warranty
1% first year degradation
0.4% Annual Power Attenuation
(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 36 pieces
Modules per 40' container: 864 pieces

ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)*	475	480	485	490	495	500	505
Power Tolerance-P _{MAX} (W)	0 ~ +5						
Maximum Power Voltage-V _{MPP} (V)	32.3	32.5	32.7	32.9	33.1	33.3	33.5
Maximum Power Current-I _{MPP} (A)	14.72	14.77	14.84	14.91	14.97	15.03	15.09
Open Circuit Voltage-V _{OC} (V)	39.0	39.2	39.4	39.6	39.8	40.1	40.3
Short Circuit Current-I _{SC} (A)	15.68	15.72	15.76	15.80	15.83	15.86	15.89
Module Efficiency η _m (%)	21.4	21.6	21.8	22.0	22.3	22.5	22.7

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

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	363	367	371	375	378	382	386
Maximum Power Voltage-V _{MPP} (V)	30.4	30.6	30.8	31.0	31.3	31.5	31.8
Maximum Power Current-I _{MPP} (A)	11.94	11.98	12.02	12.06	12.08	12.11	12.15
Open Circuit Voltage-V _{OC} (V)	36.9	37.2	37.4	37.6	37.7	38.0	38.3
Short Circuit Current-I _{SC} (A)	12.64	12.67	12.70	12.74	12.76	12.78	12.81

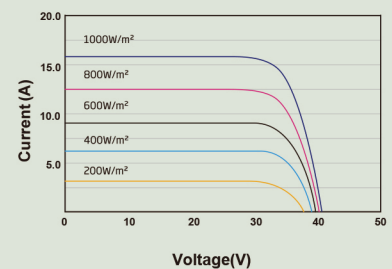
NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	108 cells
Module Dimensions	1961×1134×30 mm (77.20×44.65×1.18 inches)
Weight	23.5kg (51.8 lb)
Glass	1.6 mm High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE/EVA
Back Glass	1.6mm (0.06 inches), Heat Strengthened Glass
Frame	30mm(0.06 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: 280/350 mm(11.02/13.78 inches) Length can be customized
Connector	MC4 EVO2 / TS4 Plus / TS4*

*Please refer to regional datasheet for specified connector.

I-V CURVES OF PV MODULE(490W)



P-V CURVES OF PV MODULE(490W)

