








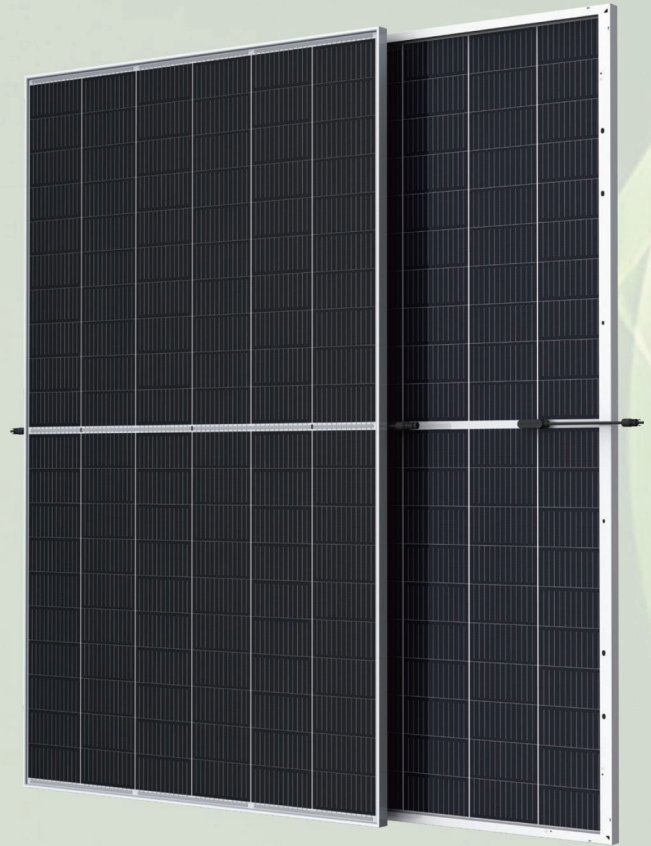




■ N-Type Solar Module

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



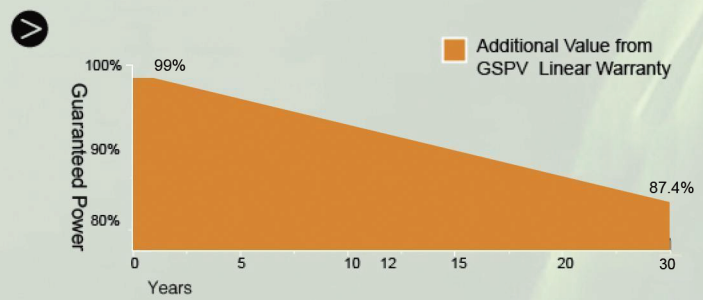
GSPV-M12/120H-620W-645W 620~645 Watt

➤ 210mm 120 Cells PV Solar Module

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

➤

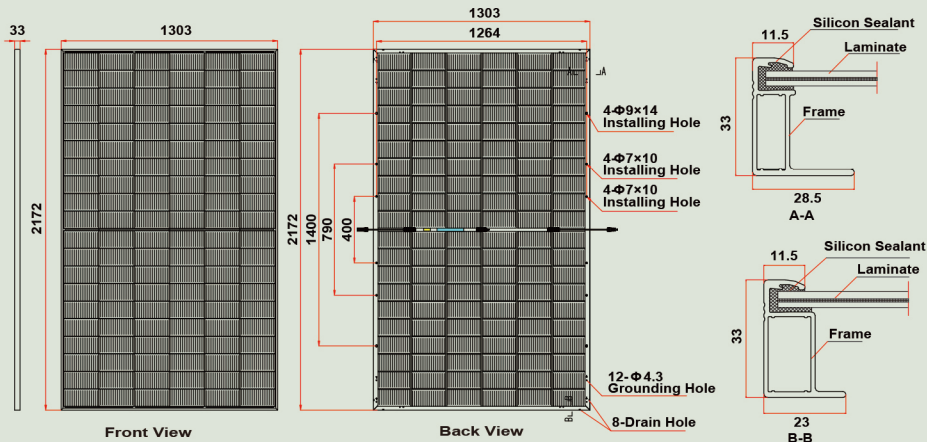
| | | | |
|---|-----------------------------------|---|---|
| 12 Years Product Workmanship Warranty | 30 Years Power Warranty | 0.40 % Annual Power Attenuation |  |
|---|-----------------------------------|---|---|



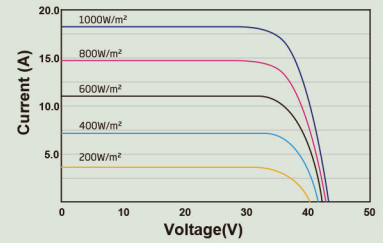
IEC61215
IEC61730
UL61215
UL61730



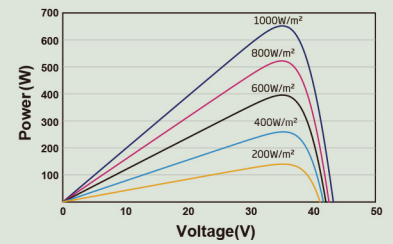
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(630W)



P-V CURVES OF PV MODULE(630W)



ELECTRICAL DATA (STC & NOCT)

| Testing Condition | STC | | NOCT | | STC | | NOCT | | STC | | NOCT | | STC | | NOCT | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|--|------|--|
| Peak Power Watts-P _{MAX} (Wp)* | 620 | 473 | 625 | 478 | 630 | 482 | 635 | 486 | 640 | 490 | 645 | 493 | | | | |
| Power Tolerance-P _{MAX} (W) | 0~+5 | | | | | | | | | | | | | | | |
| Maximum Power Voltage-V _{MPP} (V) | 36.1 | 33.9 | 36.4 | 34.3 | 36.6 | 34.5 | 36.8 | 34.7 | 37.0 | 35.0 | 37.2 | 35.2 | | | | |
| Maximum Power Current-I _{MPP} (A) | 17.16 | 13.94 | 17.19 | 13.95 | 17.22 | 13.96 | 17.26 | 13.98 | 17.30 | 14.00 | 17.34 | 14.03 | | | | |
| Open Circuit Voltage-V _{OC} (V) | 43.2 | 41.0 | 43.5 | 41.3 | 43.9 | 41.6 | 44.2 | 41.9 | 44.5 | 42.2 | 44.8 | 42.5 | | | | |
| Short Circuit Current-I _{SC} (A) | 18.18 | 14.65 | 18.21 | 14.68 | 18.24 | 14.70 | 18.27 | 14.73 | 18.30 | 14.75 | 18.33 | 14.77 | | | | |
| Module Efficiency η _m (%) | 21.9 | | 22.1 | | 22.3 | | 22.4 | | 22.6 | | 22.8 | | | | | |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s. *Measuring tolerance: ±3%.

Electrical characteristics with different power bin(reference to 5%&10% backside power gain)

| Backside Power Gain | 5% | | 10% | | 5% | | 10% | | 5% | | 10% | | 5% | | 10% | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|--|-----|--|
| Total Equivalent power -P _{MAX} (Wp) | 651 | 682 | 656 | 688 | 662 | 693 | 667 | 699 | 672 | 704 | 677 | 710 | | | | |
| Maximum Power Voltage-V _{MPP} (V) | 36.1 | 36.1 | 36.4 | 36.4 | 36.6 | 36.6 | 36.8 | 36.8 | 37.0 | 37.0 | 37.2 | 37.2 | | | | |
| Maximum Power Current-I _{MPP} (A) | 18.02 | 18.88 | 18.05 | 18.91 | 18.08 | 18.94 | 18.12 | 18.99 | 18.17 | 19.03 | 18.21 | 19.07 | | | | |
| Open Circuit Voltage-V _{OC} (V) | 43.2 | 43.2 | 43.5 | 43.5 | 43.9 | 43.9 | 44.2 | 44.2 | 44.5 | 44.5 | 44.8 | 44.8 | | | | |
| Short Circuit Current-I _{SC} (A) | 19.09 | 20.00 | 19.12 | 20.03 | 19.15 | 20.06 | 19.18 | 20.10 | 19.22 | 20.13 | 19.25 | 20.16 | | | | |

Power Bifaciality: 80±5%.

MECHANICAL DATA

| | | | |
|----------------------|--|--|---|
| Solar Cells | N-type Monocrystalline | Frame | 33mm(1.30 inches) Anodized Aluminium Alloy |
| No. of cells | 120 cells | J-Box | IP 68 rated |
| Module Dimensions | 2172×1303×33 mm (85.51×51.30×1.30 inches) | Cables | Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized |
| Weight | 34.9 kg (76.9 lb) | Connector | MC4 EVO2 / TS4 PIUS/TS4* |
| Front Glass | 2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass | *Please refer to regional datasheet for specified connector. | |
| Encapsulant material | POE/EVA | | |
| Back Glass | 2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass) | | |

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 | 35A |

WARRANTY

| |
|--|
| 12 year Product Workmanship Warranty |
| 30 year Power Warranty |
| 1% first year degradation |
| 0.40% Annual Power Attenuation |
| (Please refer to product warranty for details) |

PACKAGING CONFIGURATION

| |
|---|
| Modules per box: 26/39 pieces |
| Modules per 40' container: 234/351 pieces |