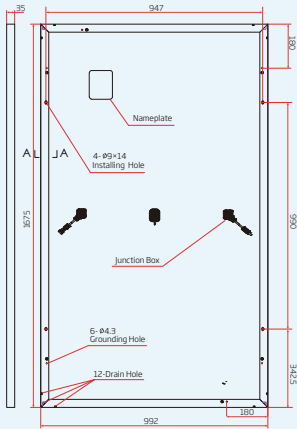
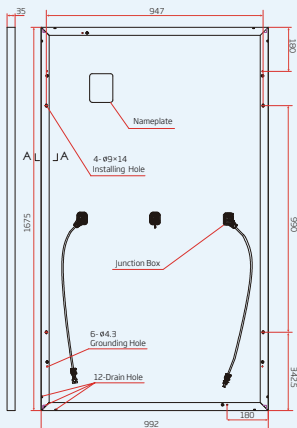


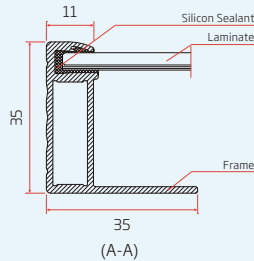
DIMENSIONS OF PV MODULE(mm)



String Inverter Configuration

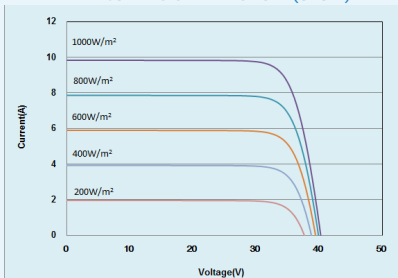


Microinverter or Optimizer Configuration

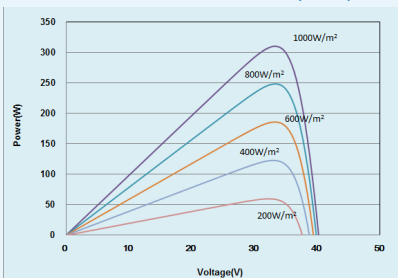


(A-A)

I-V CURVES OF PV MODULE(310W)



P-V CURVES OF PV MODULE(310W)



ELECTRICAL DATA (STC)

TSM-DD05H.05(II)

Peak Power Watts- P_{MAX} (Wp)*	310
Power Output Tolerance- P_{MAX} (W)	-5 ~ +3%
Maximum Power Voltage- V_{MPP} (V)	32.9
Maximum Power Current- I_{MPP} (A)	9.43
Open Circuit Voltage- V_{OC} (V)	40.2
Short Circuit Current- I_{SC} (A)	9.83
Module Efficiency η_m (%)	18.7

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

ELECTRICAL DATA (NOCT)

Maximum Power- P_{MAX} (Wp)	231
Maximum Power Voltage- V_{MPP} (V)	30.8
Maximum Power Current- I_{MPP} (A)	7.51
Open Circuit Voltage- V_{OC} (V)	37.5
Short Circuit Current- I_{SC} (A)	7.94

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

MECHANICAL DATA

Solar Cells	Monocrystalline 156.75 × 78.375 mm (6.17× 3.09 inches)
Cell Orientation	120 cells (6 × 20)
Module Dimensions	1675 × 992 × 35 mm (65.94 × 39.06 × 1.38 inches)
Weight	18.8 kg (41.4 lb)
Glass	3.2 mm (0.13 inches)
Encapsulant Material	EVA
Backsheet	Black
Frame	35 mm (1.38 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: N 140mm/P 285mm(5.51/11.22inches), Landscape: N 1200 mm /P 1200 mm (47.24/47.24 inches)
Connector	MC4

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	44°C (± 2°C)
Temperature Coe ^o cient of P_{MAX}	- 0.37% /°C
Temperature Coe ^o cient of V_{OC}	- 0.29% /°C
Temperature Coe ^o cient of I_{SC}	0.05% /°C

MAXIMUM RATINGS

Operational Temperature	-40~ +85°C
Maximum System Voltage	1000V DC (IEC) 1000V DC (UL)
Max Series Fuse Rating	20A

(DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)

WARRANTY

10 year Product Workmanship Warranty
25 year Linear Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 30 pieces
Modules per 40' container: 780 pieces

