

THE

ALLMAX^M plus⁺

FRAMED 120 HALF-CELL MODULE

120-Cell
MONOCRYSTALLINE MODULE285-320W
POWER OUTPUT RANGE19.3%
MAXIMUM EFFICIENCY0~+5W
POSITIVE POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy. We believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. Trina is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

Comprehensive Products
And System Certificates

IEC61215/IEC61730/UL1703/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System



PRODUCTS	BACKSHEET COLOR	POWER RANGE
TSM-DD05H.08(II)	White	285-320W
TSM-DD05H.05(II)	Black	285-320W
FRAME COLOR: Black		



Increased value

- Reduce BOS cost with high power bin
- Low thermal coefficients for greater energy production at higher temperature



Half-cell design brings higher efficiency

- New cell string layout and split J-box location to reduce the energy loss caused by inter-row shading
- Integrated LRF (Light Redirecting Film) to enhance power, specially for ground-mount applications (optional)
- Lower cell connection power losses due to half-cell layout (120 monocrystalline)



Highly reliable due to stringent quality control

- Over 30 in-house tests (UV, TC, HF etc)
- Increased module robustness to minimize micro-cracks
- PID resistant and free of snail trails
- Internal test requirement of Trina more stringent than certification authority

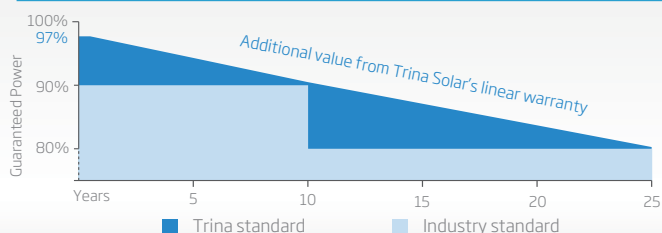


Certified to withstand the most challenging environmental conditions

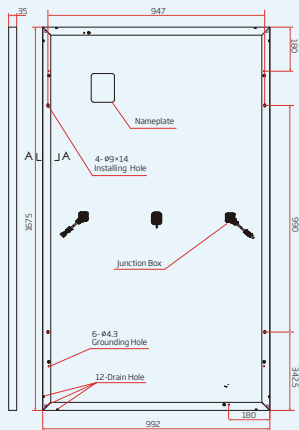
- 2400 Pa negative load
- 5400 Pa positive load

LINEAR PERFORMANCE WARRANTY

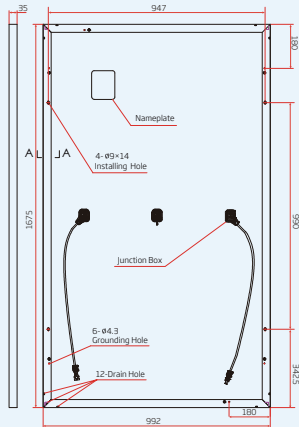
10 Year Product Warranty • 25 Year Linear Power Warranty



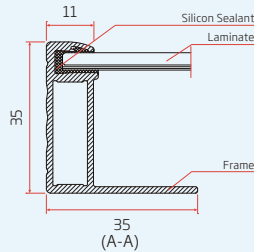
DIMENSIONS OF PV MODULE(mm)



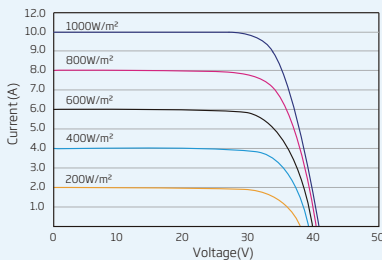
String Inverter Configuration



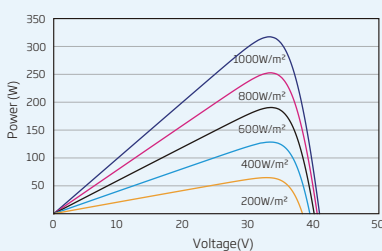
Microinverter or Optimizer Configuration



I-V CURVES OF PV MODULE(315W)



P-V CURVES OF PV MODULE(315W)



ELECTRICAL DATA (STC)

Peak Power Watts- P_{MAX} (Wp)*	285	290	295	300	305	310	315	320
Power Output Tolerance- P_{MAX} (W)	0 ~ +5							
Maximum Power Voltage- V_{MPP} (V)	31.6	31.9	32.1	32.4	32.6	32.9	33.1	33.3
Maximum Power Current- I_{MPP} (A)	9.01	9.09	9.19	9.27	9.36	9.43	9.51	9.60
Open Circuit Voltage- V_{OC} (V)	38.9	39.1	39.5	39.7	40.0	40.2	40.4	40.6
Short Circuit Current- I_{SC} (A)	9.45	9.55	9.65	9.70	9.75	9.83	9.93	10.00
Module Efficiency η_m (%)	17.2	17.5	17.8	18.1	18.4	18.7	19.0	19.3

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.

*Measuring tolerance: $\pm 3\%$.

ELECTRICAL DATA (NOCT)

Maximum Power- P_{MAX} (Wp)	212	216	220	224	228	231	235	238
Maximum Power Voltage- V_{MPP} (V)	29.6	29.8	30.0	30.3	30.6	30.8	30.9	31.2
Maximum Power Current- I_{MPP} (A)	7.17	7.26	7.32	7.39	7.44	7.51	7.58	7.64
Open Circuit Voltage- V_{OC} (V)	36.3	36.5	36.8	37.0	37.3	37.5	37.6	37.8
Short Circuit Current- I_{SC} (A)	7.63	7.71	7.79	7.83	7.87	7.94	8.02	8.08

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	White [DD05H.08(II)]; Black [DD05H.05(II)]
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 ($\pm 2^\circ\text{C}$)
Temperature Coefficient of P_{MAX}	- 0.37%/°C
Temperature Coefficient of V_{OC}	- 0.29%/°C
Temperature Coefficient of I_{SC}	0.05%/°C

(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)

MAXIMUM RATINGS

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

PACKAGING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 780 pieces

