THE



FRAMED 120 HALF-CELL BOB MODULE

120-Cell

MONOCRYSTALLINE MODULE

310 W

POWER OUTPUT RANGE

18.7%

MAXIMUM EFFICIENCY

-5~+3%W

POWER TOLERANCE

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy, we believe ciose 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













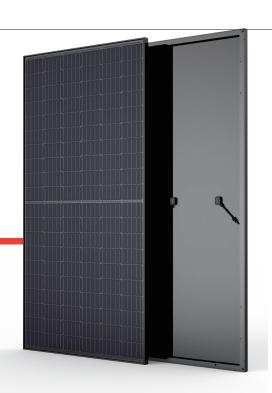








POWER 310W





Increased value

- Reduce BOS cost with high power bin
- Low thermal coefficients for greater energy production at higher temperature
- Extended temperature range enables operational efficiencies



Half-cell design brings higher efficiency

- New cell string layout and split J-box location reduces 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



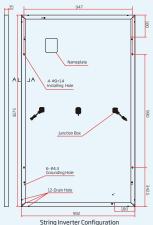
Certified to withstand the most challenging environmental conditions

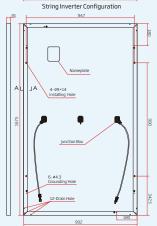
- 2400 Pa negative load
- 5400 Pa positive load



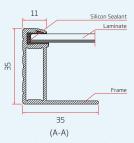


DIMENSIONS OF PV MODULE(mm)

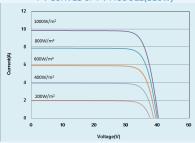




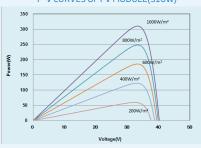
Microinverter or Optimizer Configuration



I-V CURVES OF PV MODULE(310W)



P-V CURVES OF PV MODULE(310W)



ELECTRICAL DATA (STC) TSM-DD05H.05(II)

Peak Power Watts-PMAX (Wp)*	310	
Power Output Tolerance-PMAX (W)	-5 ~ +3%	
Maximum Power Voltage-VMPP (V)	32.9	
Maximum Power Current-IMPP (A)	9.43	
Open Circuit Voltage-Voc (V)	40.2	
Short Circuit Current-Isc (A)	9.83	
Module E°ciency ηπ (%)	18.7	

STC: Irradiance 1000W/m $_{\mbox{\tiny c}}$, 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-Impp (A)	7.51
Open Circuit Voltage-Voc (V)	37.5
Short Circuit Current-Isc (A)	7.94

NOCT: Irradiance at $800 \text{W/m}_{\text{\tiny c}}$, Ambient Temperature 20°C , Wind Speed 1 m/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°cient of P MAX	- 0.37%/°C
Temperature Coe°cient of V oc	- 0.29%/°C
Temperature Coe°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)

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



