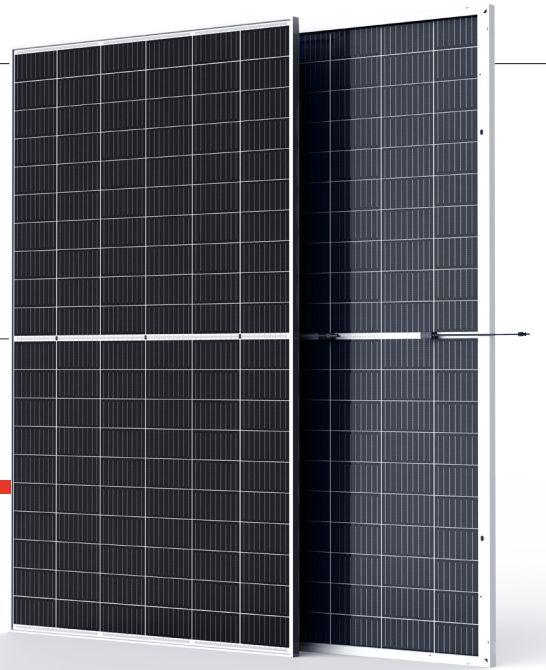


THE

# DUOMAX twin

BIFACIAL DUAL GLASS 120 HALF-CELL MODULE



**120-Cell**  
MONOCRYSTALLINE MODULE

**315-340W**  
POWER OUTPUT RANGE

**19.7%**  
MAXIMUM EFFICIENCY

**0~+5W**  
POSITIVE POWER TOLERANCE

**PRODUCTS**

TSM-DEG6MC.20(II)

**POWER RANGE**

315-340W

Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

**Comprehensive Products and System Certificates**

IEC61215/IEC61730/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



**High power output**

- Up to 405W front power and 19.7% module efficiency with half-cut technology enabling higher BOS savings
- Lower resistance of half-cut cells ensures higher power



**Certified to perform in highly challenging environments**

- High PID resistance through cell process and module material control
- Resistant to salt, acid, sand, and ammonia
- Proven to be reliable in high temperature and humidity areas
- Certified to the best fire class A
- Minimizes micro-crack and snail trails
- Certified to 5400 Pa positive load and 2400 Pa negative load



**High energy generation, low LCOE**

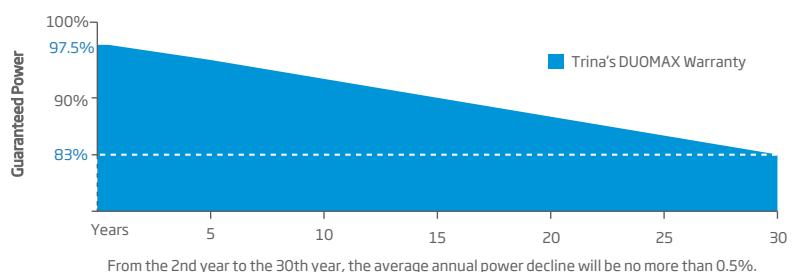
- Up to 25% additional power gain from back side, depending on the albedo
- Excellent 3rd party validated IAM and low light performance with cell process and module material optimization
- Low temp coefficient (-0.35%) and NMOT increases energy production
- Better anti-shading performance and lower operating temperature
- Higher power from same installation footprint as standard modules



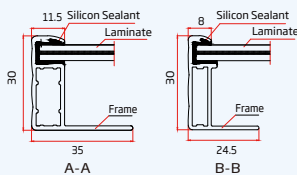
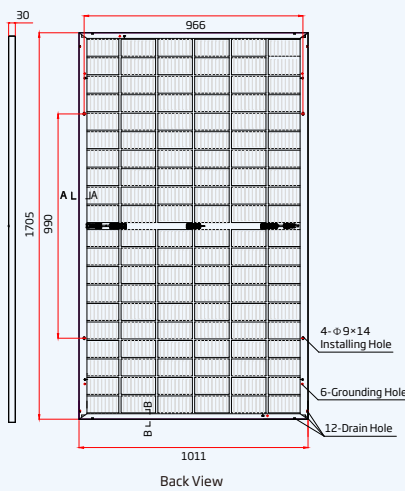
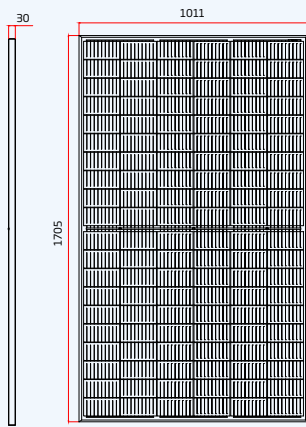
**Easy to install, wide application**

- Frame design enables compatibility with standard installation methods
- Deployable for ground mounted utility, carports, and agricultural projects
- Safe and easy to transport, handle, and install like normal framed modules

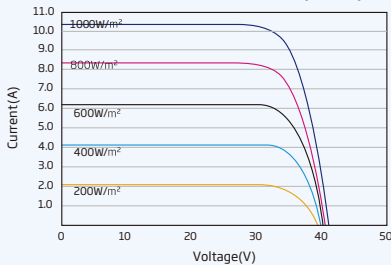
Trina Solar's DUOMAX Performance Warranty



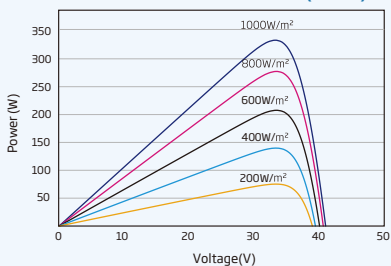
### DIMENSIONS OF PV MODULE(mm)



### I-V CURVES OF PV MODULE(335W)



### P-V CURVES OF PV MODULE(335W)



### ELECTRICAL DATA (STC)

Parameter	315	320	325	330	335	340
Peak Power Watts- $P_{MAX}$ (Wp)*	315	320	325	330	335	340
Power Output Tolerance- $P_{MAX}$ (W)	0 ~ +5					
Maximum Power Voltage- $V_{MPP}$ (V)	32.9	33.2	33.5	33.8	34.1	34.4
Maximum Power Current- $I_{MPP}$ (A)	9.58	9.64	9.71	9.77	9.83	9.89
Open Circuit Voltage- $V_{OC}$ (V)	40.0	40.2	40.4	40.6	40.8	41.0
Short Circuit Current- $I_{SC}$ (A)	10.15	10.20	10.25	10.30	10.35	10.40
Module Efficiency $\eta_m$ (%)	18.3	18.6	18.9	19.1	19.4	19.7

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.

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

### ELECTRICAL DATA (NMOT)

Parameter	239	242	246	250	254	257
Maximum Power- $P_{MAX}$ (Wp)	239	242	246	250	254	257
Maximum Power Voltage- $V_{MPP}$ (V)	31.1	31.4	31.7	31.9	32.2	32.4
Maximum Power Current- $I_{MPP}$ (A)	7.67	7.72	7.77	7.83	7.89	7.93
Open Circuit Voltage- $V_{OC}$ (V)	37.8	38.0	38.2	38.4	38.6	38.7
Short Circuit Current- $I_{SC}$ (A)	8.17	8.21	8.25	8.29	8.33	8.37

NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

### Electrical characteristics with different rear side power gains (referenced specific to 335 Wp front)\*\*

Parameter	352	369	385	402	419
Maximum Power- $P_{MAX}$ (Wp)	352	369	385	402	419
Maximum Power Voltage- $V_{MPP}$ (V)	34.1	34.1	34.1	34.1	34.1
Maximum Power Current- $I_{MPP}$ (A)	10.32	10.81	11.30	11.80	12.29
Open Circuit Voltage- $V_{OC}$ (V)	40.9	41.0	41.0	41.1	41.2
Short Circuit Current- $I_{SC}$ (A)	10.87	11.39	11.9	12.42	12.94
Pmax gain	5%	10%	15%	20%	25%

Power Bifaciality: 70 $\pm$ 5%.

### MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	120 cells (6 $\times$ 20)
Module Dimensions	1705 $\times$ 1011 $\times$ 30 mm (67.13 $\times$ 39.80 $\times$ 1.18 inches)
Weight	22.6 kg (49.8lb)
Front Glass	2.0mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	POE/EVA
Back Glass	2.0mm (0.08 inches), Heat Strengthened Glass (white Grid Glass)
Frame	30 mm (1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ) Portrait: N 280mm/P 280mm(11.02/11.02 inches) Landscape: N 1700 mm/P 1700 mm (66.93/66.93 inches)
Connector	Trina TS4/MC4

### TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	41°C ( $\pm$ 3°C)
Temperature Coefficient of $P_{MAX}$	-0.35%/°C
Temperature Coefficient of $V_c$	-0.25%/°C
Temperature Coefficient of $I_{SC}$	0.04%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

### MAXIMUM RATINGS

Operational Temperature	-40~ +85°C
Maximum System Voltage	1500V DC (IEC) 1500V DC (UL)
Max Series Fuse Rating	20A

### WARRANTY

10 year Product Workmanship Warranty
30 year Power Warranty

(Please refer to product warranty for details)

### PACKAGING CONFIGURATION

Modules per box: 32 pieces
Modules per 40' container: 832 pieces

\*\* Back-side power gain varies depending upon the specific project albedo