

# THE DUOMAX twin

BIFACIAL DUAL GLASS 60 LAYOUT MODULE



**60 LAYOUT**  
MONOCRYSTALLINE MODULE

**320-335W**  
POWER OUTPUT RANGE

**19.4%**  
MAXIMUM EFFICIENCY

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

PRODUCTS | POWER RANGE  
TSM-DEG6HC.20(II) | 320-335W



### High power output

- Increased total power output through generation from front and back side
- Backside power gain up to 25% depending on albedo
- Unique J-box design and installation method to avoid shading on the back side
- Passivated Emitter and Rear Cell (PERC Technology)



### Low LCOE

- Maximize limited space, savings in BOS and labour cost
- Higher power from same installation footprint as standard modules



### Wide application

- Deployable for ground mounted utility, greenhouse and agricultural projects
- Special application like sound barriers on expressways
- Compatible with major tracker systems



### Environmental conditions

- Resistant to sand, acid, alkaline
- 2400 Pa negative load
- 2400 Pa positive load (no back shading)

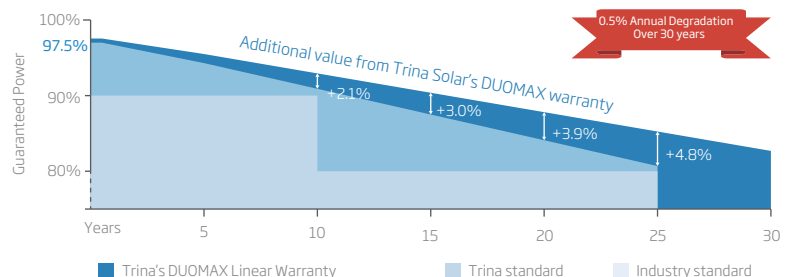
Founded in 1997, Trina Solar is the world's leading total solutions provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, 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

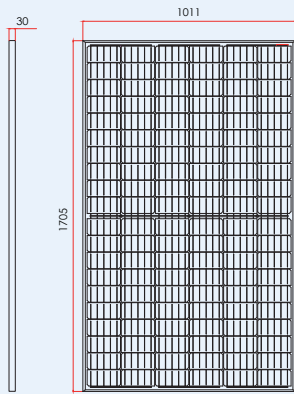
IEC61215/IEC61730/IEC61701/IEC62716  
 ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System  
 ISO14064: Greenhouse gases Emissions Verification  
 OHSAS 18001: Occupation Health and Safety Management System



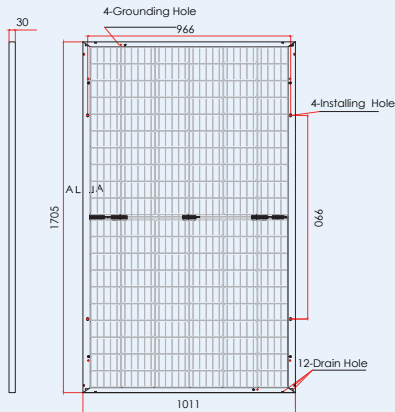
Trina Solar's DUOMAX Linear Performance Warranty



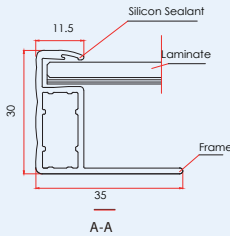
### DIMENSIONS OF PV MODULE(mm)



Front View

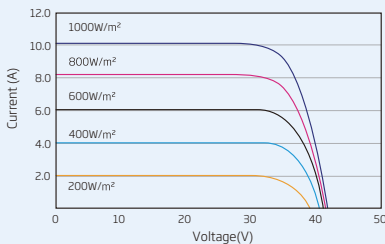


Back View

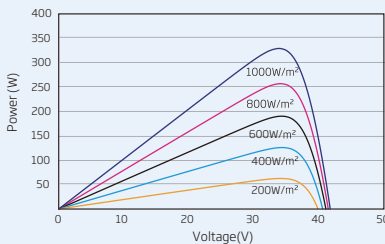


A-A

### I-V CURVES OF PV MODULE(330W)



### P-V CURVES OF PV MODULE(330W)



### ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)*	320	325	330	335
Power Output Tolerance-PMAX (W)	0 ~ +5			
Maximum Power Voltage-VMPP (V)	33.6	33.8	34.0	34.2
Maximum Power Current-IMPP (A)	9.53	9.61	9.70	9.79
Open Circuit Voltage-VOC (V)	41.4	41.6	41.9	42.1
Short Circuit Current-ISC (A)	10.04	10.12	10.21	10.30
Module Efficiency $\eta_m$ (%)	18.6	18.9	19.1	19.4

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.  
\*Measurement tolerance:  $\pm 3\%$ .

### BI-FACIAL OUTPUT - Backside Power Gain

10%	Power Output(W)	352	358	363	369
	Module Efficiency(%)	20.4	20.8	21.1	21.4
15%	Power Output(W)	368	374	380	385
	Module Efficiency(%)	21.3	21.7	22.0	22.3
25%	Power Output(W)	400	406	413	419
	Module Efficiency(%)	23.2	23.6	24.0	24.3

### ELECTRICAL DATA (NMOT)

Maximum Power-PMAX (Wp)	240	243	246	250
Maximum Power Voltage-VMPP (V)	31.1	31.3	31.4	31.6
Maximum Power Current-IMPP (A)	7.71	7.77	7.84	7.91
Open Circuit Voltage-VOC (V)	38.7	38.9	39.2	39.4
Short Circuit Current-ISC (A)	8.11	8.18	8.25	8.32

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

### MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	120 cells (6 × 20)
Module Dimensions	1705 × 1011 × 30 mm (67.13 × 39.80 × 1.18 inches),
Weight	26.4 kg (58.2 lb)
Front Glass	2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	POE / EVA
Back Glass	2.5 mm (0.10 inches), Heat Strengthened(White Grid Glass)
Frame	30 mm( 1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm <sup>2</sup> (0.006 inches <sup>2</sup> ) Portrait: 280/280 mm (11.02/11.02 inches), Landscape: 1700/1700 mm (66.93/66.93 inches)
Connector	MC4 EVO2/TS4

### TEMPERATURE RATINGS

NMOT(Nominal Module Operating Temperature)	41°C ( $\pm 3^\circ\text{C}$ )
Temperature Coefficient of PMAX	- 0.37%/°C
Temperature Coefficient of VOC	- 0.29%/°C
Temperature Coefficient of ISC	0.05%/°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 Linear Power Warranty

(Please refer to product warranty for details)

### PACKAGING CONFIGURATION

Modules per box: 32 pieces
Modules per 40' container: 768 pieces

