THE

# DUOMAXtwin

HALF-CELL DUAL GLASS 60 LAYOUT MODULE

# **60 LAYOUT**

**MONOCRYSTALLINE MODULE** 

315-340W

**POWER OUTPUT RANGE** 

19.9%

**MAXIMUM EFFICIENCY** 

## 0~+5W

#### **POSITIVE POWER TOLERANCE**

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

IECG1215/IECG1730/IECG1701/IECG2716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
OHSAS 18001: Occupation Health and Safety
Management System

















PRODUCTS
TSM-DEG6MC(II)

POWER RANGE 315-340W



### High power output

- Combined with MBB technology, maximum 340W
- Reduce BOS cost with higher power bin and 1500V system voltage



### Half-cell design brings higher efficiency

- Half-cell layout (120 monocrystalline)
- Low thermal coefficients for greater energy production at high operating temperature
- Low cell connection power loss due to half-cell layout (120 monocrystalline)



### Highly reliable due to stringent quality control

- Over 30 in-house tests (UV, TC, HF etc)
- Internal test requirement of Trina more stringent than certification authority
- PID resistant
- 100% EL double inspection



# Certified to withstand the most challenging environmental conditions

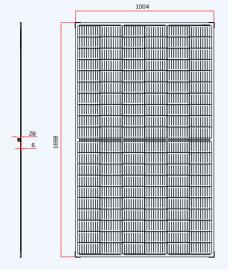
- Resistant to sand, acid, alkaline
- 2400 Pa negative load
- 2400 Pa positive load
- \* 2400/2400 is the measured load, and the safety factor is 1.5 times

#### Trina Solar's DUOMAX Linear Performance Warranty

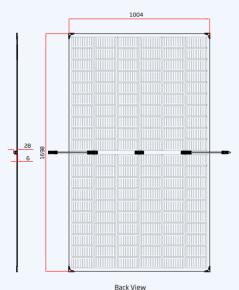




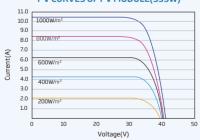
#### **DIMENSIONS OF PV MODULE(mm)**



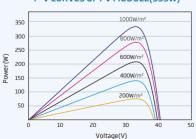
Front View



I-V CURVES OF PV MODULE(335W)



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



#### ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)*	315	320	325	330	335	340
Power Output Tolerance-PMAX (W)	0~+5					
Maximum Power Voltage-VMPP (V)	32.9	33.2	33.5	33.8	34.1	34.4
Maximum Power Current-IMPP (A)	9.58	9.64	9.71	9.77	9.83	9.89
Open Circuit Voltage-VOC (V)	40.0	40.2	40.4	40.6	40.8	41.0
Short Circuit Current-ISC (A)	10.15	10.20	10.25	10.30	10.35	10.40
Module Efficiency $\eta$ m (%)	18.5	18.8	19.1	19.4	19.7	19.9

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

#### BI-FACIAL OUTPUT - Backside Power Gain

100/	Power Output(W)	347	352	358	363	369	374	
	10% <sub>M</sub>	Module Efficiency(%)	20.3	20.6	21.0	21.3	21.6	21.9
	150/	Power Output(W)	362	368	374	380	385	391
15%	Module Efficiency(%)	21.2	21.6	21.9	22.3	22.6	22.9	
	250/	Power Output(W)	394	400	406	413	419	425
	25%	Module Efficiency(%)	23.1	23.5	23.8	24.2	24.6	24.9

#### **ELECTRICAL DATA (NMOT)**

Maximum Power-PMAX (Wp)	238	241	245	249	253	256
Maximum Power Voltage-V <sub>MPP</sub> (V)	31.1	31.4	31.6	31.9	32.2	32.5
Maximum Power Current-IMPP (A)	7.64	7.69	7.75	7.80	7.84	7.89
Open Circuit Voltage-Voc (V)	38.1	38.3	38.5	38.7	38.9	39.1
Short Circuit Current-Isc (A)	8.18	8.23	8.27	8.31	8.35	8.39

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

#### **MECHANICAL DATA**

Solar Cells	Monocrystalline		
Cell Orientation	120 cells (6 × 20)		
Module Dimensions	1698 × 1004 × 6 mm (66.85 × 39.53 × 0.24 inches),		
	$1702\times1008\times6$ mm with edgebanding ( $67.01\times39.69\times0.24$ inches),		
	$1704 \times 1010 \times 7.6$ mm with corner ( $67.09 \times 39.76 \times 0.30$ inches),		
Weight	24.6 kg (54.2 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	Frameless		
J-Box	IP 68 rated		
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²),		
	Portrait: 280/280 mm(11.02/11.02inches),		
	Landscape: 1700/1700 mm(66.93/66.93 inches)		
Connector	MC4 EVO2 / TS4		

#### TEMPERATURE RATINGS

NMOT(Nominal Module Operating Temperature)	41°C (±3°C)
Temperature Coefficient of PMAX	- 0.37%/°C
Temperature Coefficient of Voc	- 0.29%/℃
Temperature Coefficient of Isc	0.05%/℃

MAXIMUM RATINGS	
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Operational Temperature	-40~+85°C
Maximum System Voltage	1500V 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

30 year Linear Power Warranty

(Please refer to product warranty for details)

### PACKAGING CONFIGURATION

Modules per box: 33 pieces

Modules per 40'container: 792 pieces

