# THE DUOMAX

**DUAL GLASS 60-CELL MODULE** 



**MULTICRYSTALLINE MODULE** 

270-285W

**POWER OUTPUT RANGE** 

**17.3% MAXIMUM EFFICIENCY** 

# 0~+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

























# Highly reliable due to stringent quality control

- PID resistant and free of snail trails
- Increased module robustness to minimize micro-cracks
- 100% EL double inspection



# **Enhanced safety**

- Fire class A certified by TUV Rheinland according to fire test IEC 61730-2/MST 23
- Certified for fire type13 (UL 1703)



#### Increased value

- Higher maximum system voltage reduces BOS costs
- 30 year linear warranty
- 0.5% annual degradation
- Low thermal coefficents for more energy production at higher temperatures



# Certified to withstand the most challenging environmental conditions

- Module coating resistant to sand, acid, and alkali
- 2400 Pa wind load
- 5400 Pa snow load
- 35 mm hail stones at 97 km/h

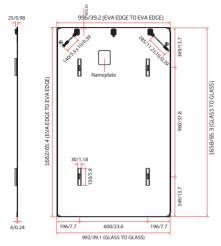
#### Trina Solar's DUOMAX Linear Performance Warranty



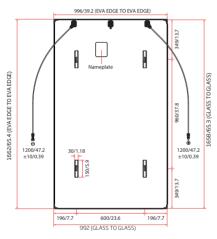


PRODUCTS	INSTALLATION METHOD	POWER RANGE
TSM-PEG5	Clamp	270-285W
TSM-PEG5.40	Gecko Grip	270-285W
TSM-PEG5.07	Clamp	265-280W
TSM-PEG5.47	Gecko Grip	265-280W

#### DIMENSIONS OF PV MODULE (mm/inches)

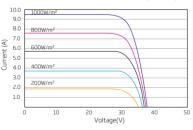


Back View (Portrait)

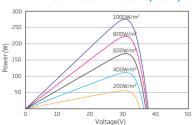


Back View (Landscape)

#### I-V CURVES OF PV MODULE(280W)



#### P-V CURVES OF PV MODULE(280W)



#### **ELECTRICAL DATA (STC)**

Peak Power Watts-PMAX (Wp)*	270	275	280	285
Power Output Tolerance-PMAX (W)		0 ~	+5	
Maximum Power Voltage-VMPP (V)	31.1	31.3	31.6	32.0
Maximum Power Current-IMPP (A)	8.69	8.78	8.87	8.91
Open Circuit Voltage-V∞ (V)	38.0	38.2	38.4	38.6
Short Circuit Current-Isc (A)	9.28	9.31	9.32	9.36
Module Efficiency η™ (%)	16.4	16.7	17.0	17.3

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5. \*Measuring tolerance: ±3%.

#### **ELECTRICAL DATA (NOCT)**

Maximum Power-PMAX (Wp)	200	204	208	211
Maximum Power Voltage-V <sub>MPP</sub> (V)	28.8	29.0	29.2	29.6
Maximum Power Current-Impp (A)	6.97	7.04	7.11	7.14
Open Circuit Voltage-Voc (V)	35.2	35.4	35.6	35.8
Short Circuit Current-Isc (A)	7.49	7.52	7.52	7.56

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

#### **MECHANICAL DATA**

Solar Cells	Multicrystalline 156.75 × 156.75 mm (6 inches)
Cell Orientation	60 cells (6 × 10)
	1658 × 992 × 6 mm (65.3 × 39.1 × 0.236 inches)
Module Dimensions	1662 × 996 × 6 mm with edge banding (65.4 × 39.2 × 0.236 inches)
	1664 × 998 × 7.6 mm with corner protector (65.5 × 39.3 × 0.299 inches)*
Weight	23.5 kg (51.8 lb)
Front Glass	2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
EVA	White (PEG5, PEG5.40); Transparent (PEG5.07, PEG5.47)
Back Glass	2.5 mm (0.10 inches), Heat Strengthened Glass
Frame	Frameless
J-Box	IP 67 or IP 68 rated
	Photovoltaic Technology Cable 4.0 mm² (0.006 inches²)
Cables	Portrait: 140/285 mm (5.5/11.2 inches)
	Landscape: 1200/1200 mm (47.2/47.2 inches)
Connector	Trina TS4 (1500V)
Fire Type	Type 13

#### **TEMPERATURE RATINGS**

NOCT (Nominal Operating Cell Temperature)	44°C (±2°C)
Temperature Coefficient of PMAX	- 0.41%/°C
Temperature Coefficient of Voc	- 0.32%/°C
Temperature Coefficient of Isc	0.05%/°C

## MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum SystemVoltage	1500V DC (IEC)
	1000V DC (UL)
Max Series Fuse Rating	15A

<sup>(</sup>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: 858 pieces

## MORE OPTIONS

□ 2.0mm Glass: 19.7 kg (43.4 lb) (Only for PEG5.40/PEG5.47)
 More Options
 □ Compact AR Coating
 □ POE (Polyolefin Elastomer) Adhesive

\*Not applicable to slide-in racking solution\*

\*\*Not applicable solution\*

\*\*Not applicable

