THE

# DUOMAX

HALF-CELL DUAL GLASS 72 LAYOUT MODULE

# **72 LAYOUT**

**MULTICRYSTALLINE MODULE** 

340-355W

**POWER OUTPUT RANGE** 

17.3% **MAXIMUM EFFICIENCY** 

# 0~+5W POSITIVE POWER TOLERANCE

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/UL1703/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











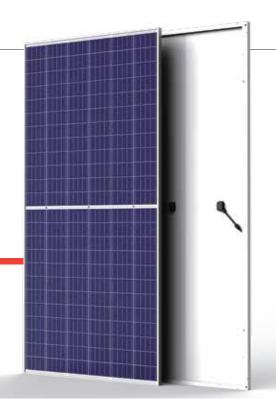








**PRODUCTS** TSM-PEG15H.20 **POWER RANGE** 340-355W





## Increased value

- Reduce BOS cost with higher power bin and 1500V system voltage
- 30 year linear warranty
- 0.5% annual degradation
- Low thermal coefficients for greater energy production at higher temperature



# Half-cell design brings higher efficiency

- New cell string layout and split I-box location to reduce the energy loss caused by shading between modules
- Lower cell connection power losses due to half-cell layout(144 multicrystalline)



## Highly reliable due to stringent quality control

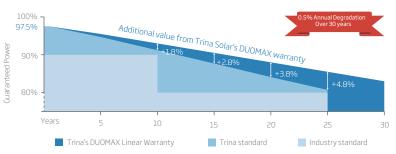
- Over 30 in-house tests (UV, TC, HF etc)
- Increased module robustness to minimize micro-cracks
- PID resistant and free of snail trails
- 100% EL double inspection



# Certified to withstand the most challenging environmental conditions

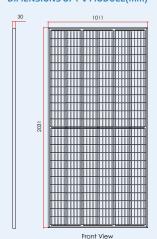
- 2400 Pa negative load
- 5400 Pa positive load
- 2400/5400 is the measured load, and the safety factor is 1.5 times

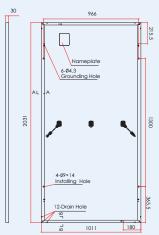
# Trina Solar's DUOMAX Linear Performance Warranty

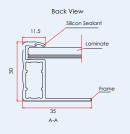




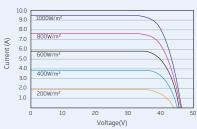
#### **DIMENSIONS OF PV MODULE(mm)**



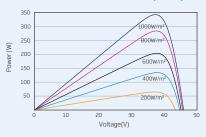




#### I-V CURVES OF PV MODULE(345W)



#### P-V CURVES OF PV MODULE(345W)



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

Peak Power Watts-PMAX (Wp)*	340	345	350	355
Power Output Tolerance-PMAX (W)	0~+5			
Maximum Power Voltage-VMPP (V)	37.5	37.7	37.9	38.1
Maximum Power Current-IMPP (A)	9.06	9.15	9.23	9.32
Open Circuit Voltage-Voc (V)	46.2	46.4	46.7	47.0
Short Circuit Current-Isc (A)	9.53	9.62	9.71	9.81
Module Efficiency ηπ (%)	16.6	16.8	17.0	17.3

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

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

Maximum Power-PMAX (Wp)	257	261	265	269
Maximum Power Voltage-VMPP (V)	35.5	35.7	35.9	36.1
Maximum Power Current-Impp (A)	7.24	7.31	7.37	7.45
Open Circuit Voltage-Voc (V)	43.5	43.7	44.0	44.2
Short Circuit Current-Isc (A)	7.69	7.76	7.83	7.91

NMOT: Irradiance at  $800 \text{W/m}^2$ , Ambient Temperature  $20^{\circ}\text{C}$ , Wind Speed 1 m/s.

#### **MECHANICAL DATA**

Solar Cells	Multicrystalline
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2031 × 1011× 30 mm (79.96×39.80 × 1.18 inches),
Weight	31.4 kg (69.2 lb)
Front Glass	2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Back Glass	2.5 mm (0.10 inches), Heat Strengthened Glass
Frame	30 mm( 1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²),
	Portrait: N 140mm/P 285mm((5.51/11.22inches)
	Landscape: N 1400 mm /P 1400 mm (55.12/55.12 inches)
Connector	MC4 EV02/TS4

#### TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	41°C (±3°C)
Temperature Coefficient of PMAX	- 0.38%/°C
Temperature Coefficient of Voc	- 0.31%/°C
Temperature Coefficient of Isc	0.05%/°C

#### MAXIMUM RATINGS

Operational Temperature	-40~+85°C	
Maximum System Voltage	1500V DC (IEC)	
	1500V 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: 32 pieces

Modules per 40' container: 704 pieces





<sup>\*</sup>Measuring tolerance: ±3%.