**Draft** 

THE



# **60 LAYOUT**

**MULTICRYSTALLINE** 

285-300W

**POWER OUTPUT RANGE** 

17.8%
MAXIMUM EFFICIENCY

# 0~+5W POSITIVE POWER TOLARANCE

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/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

















PRODUCTS | POWER RANGE
TSM-PE06H | 285-300W



# **High power**

- Up to 300W front power and 17.8% module efficiency with half-cut technology bringing more BOS savings
- Lower resistance of half-cut ensure high power



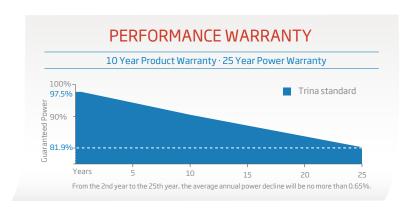
# High reliability

- Ensured PID resistance through cell process and module material control
- Resistant to salt, acid and ammonia
- Certified to 5400 Pa positive load and 2400 Pa negative load



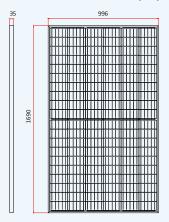
# High energy generation

- Excellent IAM and low light performance validated by 3rd party with cell process and module material optimization
- Lower NMOT bring more energy leading to lower LCOE
- Better anti-shading performance and lower operating temperature

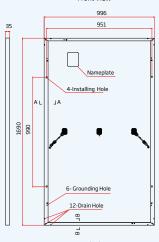


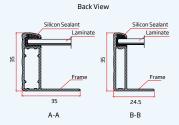


#### DIMENSIONS OF PV MODULE(mm)

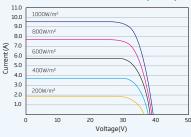




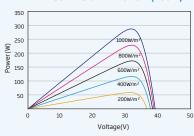




### I-V CURVES OF PV MODULE(290W)



## P-V CURVES OF PV MODULE(290W)



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

| Peak Power Watts-PMAX (Wp)*                | 285  | 290  | 295  | 300  |
|--------------------------------------------|------|------|------|------|
| Power Output Tolerance-PMAX (W)            | 0~+5 |      |      |      |
| Maximum Power Voltage-V <sub>MPP</sub> (V) | 31.5 | 31.8 | 32.1 | 32.3 |
| Maximum Power Current-I <sub>MPP</sub> (A) | 9.05 | 9.12 | 9.19 | 9.29 |
| Open Circuit Voltage-Voc (V)               | 38.8 | 39.2 | 39.5 | 39.8 |
| Short Circuit Current-Isc (A)              | 9.53 | 9.60 | 9.67 | 9.77 |
| Module Efficiency η m (%)                  | 16.9 | 17.2 | 17.5 | 17.8 |

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

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

| • • •                                      |      |      |      |      |
|--------------------------------------------|------|------|------|------|
| Maximum Power-PMAX (Wp)                    | 216  | 219  | 223  | 227  |
| Maximum Power Voltage-V <sub>MPP</sub> (V) | 29.8 | 30.1 | 30.4 | 30.6 |
| Maximum Power Current-IMPP (A)             | 7.24 | 7.29 | 7.35 | 7.42 |
| Open Circuit Voltage-Voc (V)               | 36.5 | 36.9 | 37.2 | 37.4 |
| Short Circuit Current-Isc (A)              | 7.69 | 7.74 | 7.80 | 7.88 |

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

#### **MECHANICAL DATA**

| Solar Cells          | Multicrystalline                                                                                                                                       |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cell Orientation     | 120 cells (6 × 20)                                                                                                                                     |
| Module Dimensions    | 1690 × 996 × 35 mm (66.54 × 39.21 × 1.38 inches)                                                                                                       |
| Weight               | 18.0 kg (39.7 lb)                                                                                                                                      |
| Glass                | 3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass                                                                             |
| Encapsulant Material | EVA                                                                                                                                                    |
| Backsheet            | White                                                                                                                                                  |
| Frame                | 35 mm (1.38 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 1200 mm /P 1200 mm (47.24/47.24 inches) |
| Connector            | MC4 EVO2 / TS4*                                                                                                                                        |

<sup>\*</sup>Please refer to regional datasheet for specified connector.

#### **TEMPERATURE RATINGS**

| $NMOT ({\sf Nominal\ Module\ Operating Temperature})$ | 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            |  |

<sup>(</sup>Do not connect Fuse in Combiner Box with two or more strings in  $\,$  parallel connection)

# WARRANTY

10 year Product Workmanship Warranty
25 year Power Warranty

(Please refer to product warranty for details)

# PACKAGING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 780 pieces

