

# THE TALLMAX<sup>M</sup>

## FRAMED 144 HALF-CELL MODULE

### 144-Cell MONOCRYSTALLINE MODULE

### 380-410W POWER OUTPUT RANGE

### 20.2% 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

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	COLOR OF FRAME	POWER RANGE
TSM-DE15H(II)	Silver	385-410W



#### High power output

- Reduce BOS cost with high power bin and 1500V system voltage
- New cell string layout and split J-box location reduces the energy loss caused by inter-row shading
- Lower resistance of half-cut cells ensures higher power



#### High energy generation, low LCOE

- Excellent 3rd party validated IAM and low light performance with cell process and module material optimization
- Integrated LRF(Light Redirecting Film) to enhance power
- Low  $P_{max}$  temp coefficient (-0.36%) increases energy production
- Better anti-shading performance and lower operating temperature



#### Certified to perform in highly challenging environments

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

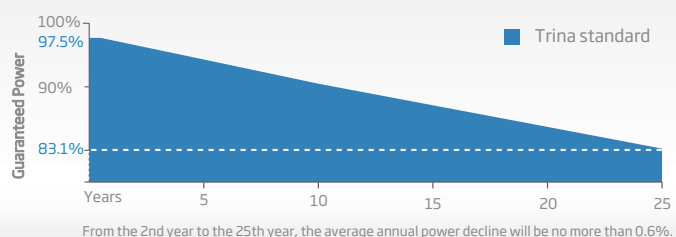


#### Easy to install, wide application

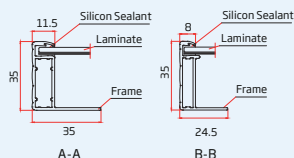
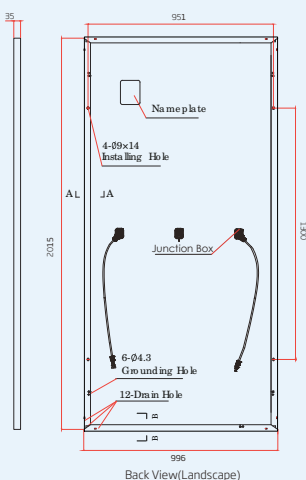
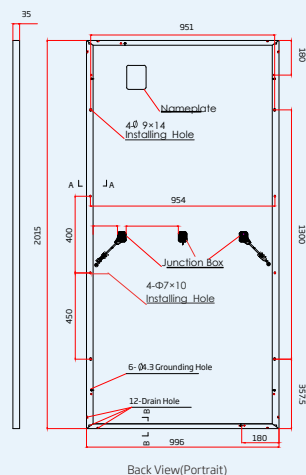
- Frame design enables compatibility with standard installation methods
- Deployable for ground mounted and rooftop projects
- Safe and easy to transport, handle, and install

#### PERFORMANCE WARRANTY

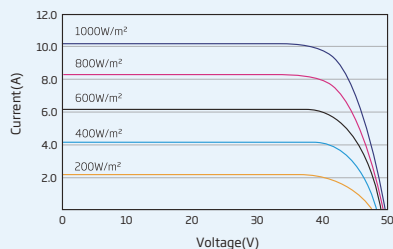
12 Year Product Warranty · 25 Year Power Warranty



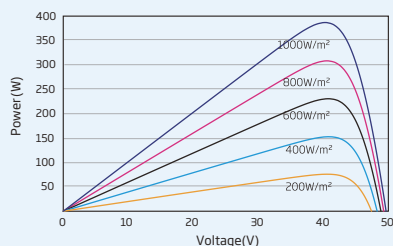
### DIMENSIONS OF PV MODULE (mm)



### I-V CURVES OF PV MODULE(390W)



### P-V CURVES OF PV MODULE(390W)



### ELECTRICAL DATA (STC)

Peak Power Watts- $P_{MAX}$ (Wp)*	380	385	390	395	400	405	410
Power Output Tolerance- $P_{MAX}$ (W)	0 ~ +5						
Maximum Power Voltage- $V_{MPP}$ (V)	39.6	40.1	40.5	40.8	41.1	41.4	41.7
Maximum Power Current- $I_{MPP}$ (A)	9.59	9.61	9.64	9.69	9.74	9.79	9.84
Open Circuit Voltage- $V_{OC}$ (V)	48.1	48.5	49.7	50.1	50.4	50.8	51.2
Short Circuit Current- $I_{SC}$ (A)	9.99	10.03	10.08	10.13	10.18	10.23	10.29
Module Efficiency $\eta_m$ (%)	18.7	18.9	19.2	19.4	19.7	19.9	20.2

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

\*Measurement tolerance:  $\pm 3\%$ .

### ELECTRICAL DATA (NMOT)

Maximum Power- $P_{MAX}$ (Wp)	287	291	296	299	303	307	311
Maximum Power Voltage- $V_{MPP}$ (V)	37.6	37.9	38.6	38.9	39.1	39.4	39.7
Maximum Power Current- $I_{MPP}$ (A)	7.64	7.68	7.66	7.70	7.74	7.78	7.82
Open Circuit Voltage- $V_{OC}$ (V)	45.4	45.8	46.9	47.3	47.6	47.9	48.3
Short Circuit Current- $I_{SC}$ (A)	8.05	8.08	8.12	8.16	8.20	8.24	8.29

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

### MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2015 × 996 × 35 mm (79.33 × 39.21 × 1.38 inches)
Weight	22.0kg (48.5lb)
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 (5.51/11.22 inches) Landscape: N 1400 mm / P 1400 mm (55.12/55.12 inches)
Connector	Trina TS4/MC4-Evo2

### TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	41°C ( $\pm 3^\circ\text{C}$ )
Temperature Coefficient of $P_{MAX}$	- 0.36%/°C
Temperature Coefficient of $V_{OC}$	- 0.26%/°C
Temperature Coefficient of $I_{SC}$	0.04%/°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

12 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: 660 pieces

Pallet dimensions (L x W x H): 2055 x 1120 x 1154 mm

Pallet weight: 701kg (1,546lb)