### THE

# **TALMAX®** BACKSHEET MONOCRYSTALLINE MODULE

560W

PRODUCTS TSM-DE18 POWER RANGE 540-560W



21.7%

## 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/IEC61701/IEC62716 ISO 9001: Quality Management System ISO 14001: Environmental Management System ISO14064: Greenhouse Gases Emissions Verification ISO45001: Occupational Health and Safety Management System





High power up to 560W

Up to 21.7% module efficiency with high density interconnect technology
Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection

#### **High reliability**

- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load

## High energy yield

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions
- Lower temperature coefficient (-0.34%) and operating temperature

#### **Trina Solar's Backsheet Performance Warranty**





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#### DIMENSIONS OF PV MODULE(mm)







I-V CURVES OF PV MODULE(550 W)



P-V CURVES OF PV MODULE(550W)





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

Peak Power Watts-P <sub>MAX</sub> (Wp)*	540	545	550	555	560
Power Tolerance-P <sub>MAX</sub> (W)			0 ~ +5		
Maximum Power Voltage-V <sub>MPP</sub> (V)	41.2	41.4	41.6	41.9	42.2
Maximum Power Current-Impp (A)	13.12	13.16	13.21	13.25	13.29
Open Circuit Voltage-Voc (V)	49.3	49.5	49.8	50.0	50.2
Short Circuit Current-Isc (A)	13.92	13.97	14.02	14.07	14.12
Module Efficiency $\eta_m$ (%)	20.9	21.1	21.3	21.5	21.7

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5. \*Measuring tolerance: ±3%.

#### ELECTRICAL DATA (NOCT)

Maximum Power-P <sub>MAX</sub> (Wp)	408	411	415	418	422
Maximum Power Voltage-V <sub>MPP</sub> (V)	38.3	38.5	38.7	38.9	39.1
Maximum Power Current-Impp (A)	10.65	10.69	10.72	10.75	10.79
Open Circuit Voltage-Voc (V)	46.4	46.6	46.9	47.1	47.2
Short Circuit Current-Isc (A)	11.22	11.26	11.30	11.34	11.38

NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s.

IECHANICAL DATA	
Solar Cells	Monocrystalline
Cell Orientation	144 cells
Module Dimensions	2278×1134×30 mm (89.69×44.65×1.38 inches)
Weight	27.5 kg (60.6 lb)
Glass	3.2 mm (0.13 inches), High Transmission, Tempered Glass
Encapsulant Material	EVA/POE
Backsheet	White
Backsheet Frame	White 30 mm (1.38 inches) Anodized Aluminium Alloy
Frame	30 mm (1.38 inches) Anodized Aluminium Alloy

\*Please refer to regional datasheet for specified connector.

#### **TEMPERATURE RATINGS**

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of PMAX	- 0.34%/°C
Temperature Coefficient of Voc	- <b>0.25%/</b> °C
Temperature Coefficient of Isc	<b>0.04%/</b> C

MAXI	MUM	RAT	NGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	25 A

#### WARRANTY

- 12 year Product Workmanship Warranty
- 25 year Power Warranty
- 2% first year degradation
- 0.55% Annual Power Attenuation

(Please refer to product warranty for details)

#### PACKAGING CONFIGURATION

Modules per box: 36 pieces

Modules per 40' container: 720 pieces

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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