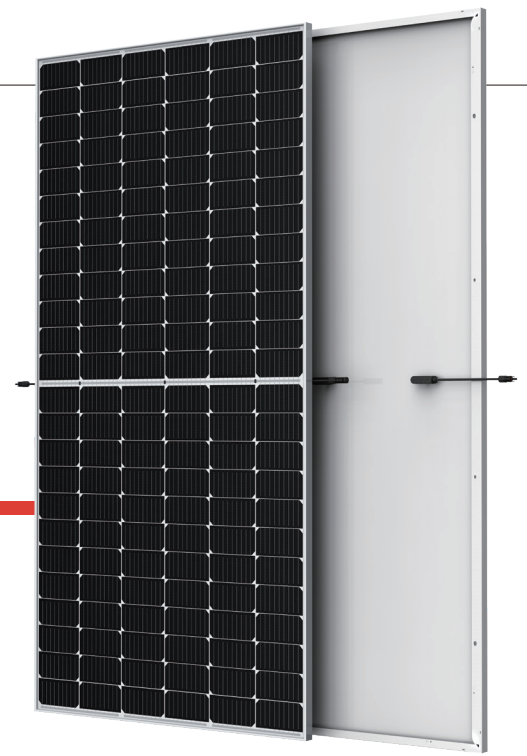


THE Vertex

BACKSHEET MONOCRYSTALLINE MODULE



550W

MAXIMUM POWER OUTPUT

21.5%

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/IEC61701/IEC62716/UL61730
 ISO 9001: Quality Management System
 ISO 14001: Environmental Management System
 ISO14064: Greenhouse Gases Emissions Verification
 ISO45001: Occupational Health and Safety Management System



PRODUCTS
TSM-DE18

POWER RANGE
530-550W



High power up to 550W

- Up to 21.5% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



High reliability

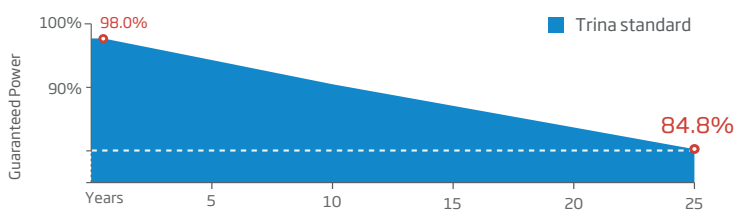
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



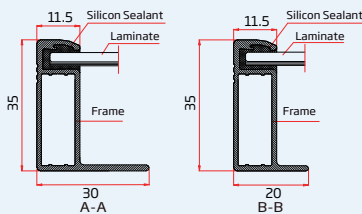
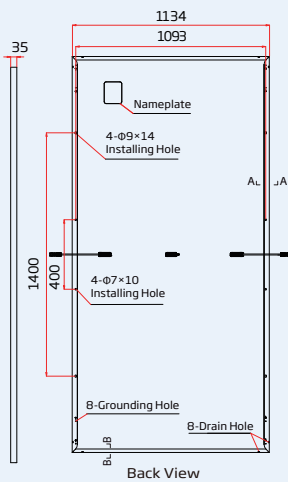
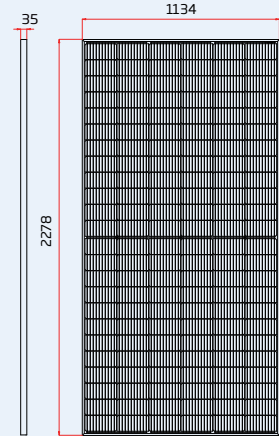
High energy yield

- 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

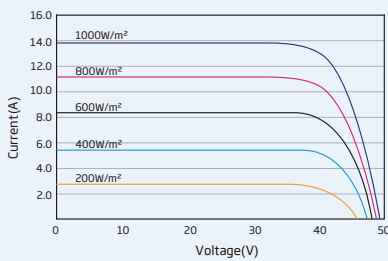
Trina Solar's Backsheet Performance Warranty



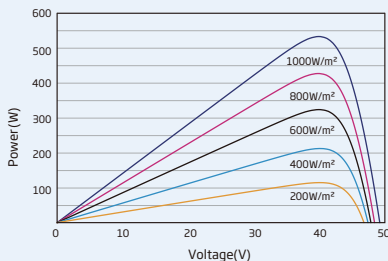
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(535 W)



P-V CURVES OF PV MODULE(535W)



ELECTRICAL DATA (STC)

Parameter	530	535	540	545	550
Peak Power Watts- P_{MAX} (Wp)*	530	535	540	545	550
Power Tolerance- P_{MAX} (W)	0 ~ +5				
Maximum Power Voltage- V_{MPP} (V)	40.7	40.9	41.2	41.4	41.6
Maximum Power Current- I_{MPP} (A)	13.03	13.07	13.12	13.16	13.21
Open Circuit Voltage- V_{OC} (V)	48.9	49.1	49.3	49.5	49.8
Short Circuit Current- I_{SC} (A)	13.82	13.87	13.92	13.97	14.02
Module Efficiency η_m (%)	20.7	20.9	21.1	21.3	21.5

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

*Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

Parameter	401	404	409	413	416
Maximum Power- P_{MAX} (Wp)	401	404	409	413	416
Maximum Power Voltage- V_{MPP} (V)	37.9	38.0	38.3	38.5	38.7
Maximum Power Current- I_{MPP} (A)	10.60	10.63	10.68	10.72	10.74
Open Circuit Voltage- V_{OC} (V)	46.1	46.2	46.4	46.6	46.9
Short Circuit Current- I_{SC} (A)	11.14	11.18	11.22	11.26	11.30

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	150 cells
Module Dimensions	2256×1133×35 mm (88.82×44.61×1.38 inches)
Weight	27.8 kg (61.3 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 4.0mm ² (0.006 inches ²), Portrait: N 280mm/P 280mm(11.02/11.02inches) Length can be customized
Connector	MC4 EVO2 / TS4*

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P_{MAX}	-0.34%/°C
Temperature Coefficient of V_{OC}	-0.25%/°C
Temperature Coefficient of I_{SC}	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
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: 31 pieces
Modules per 40' container: 620 pieces