



BACKSHEET MONOCRYSTALLINE MODULE

PRODUCT: TSM-DE19R

PRODUCT RANGE: 565-585W

585W

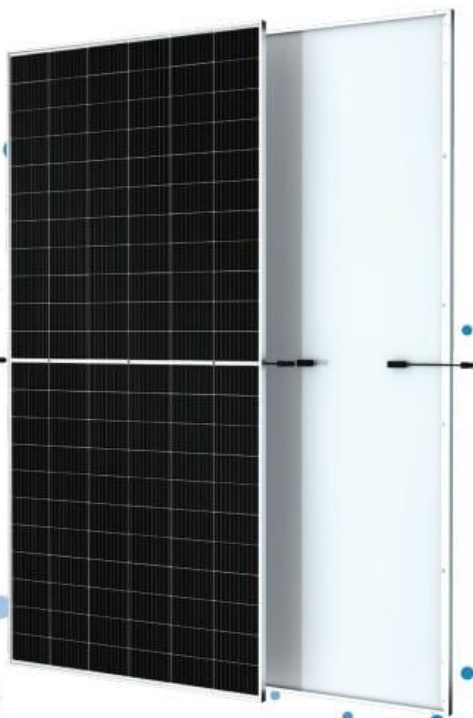
MAXIMUM POWER OUTPUT

0~+5W

POSITIVE POWER TOLERANCE

21.6%

MAXIMUM EFFICIENCY



High customer value

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance of System) cost, shorter payback time
- Lower first year and annual degradation
- Designed for compatibility with existing mainstream system components
- Higher return on Investment



High power up to 585W

- Up to 21.6% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



High reliability

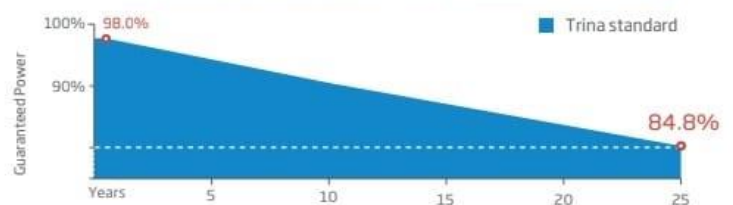
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



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



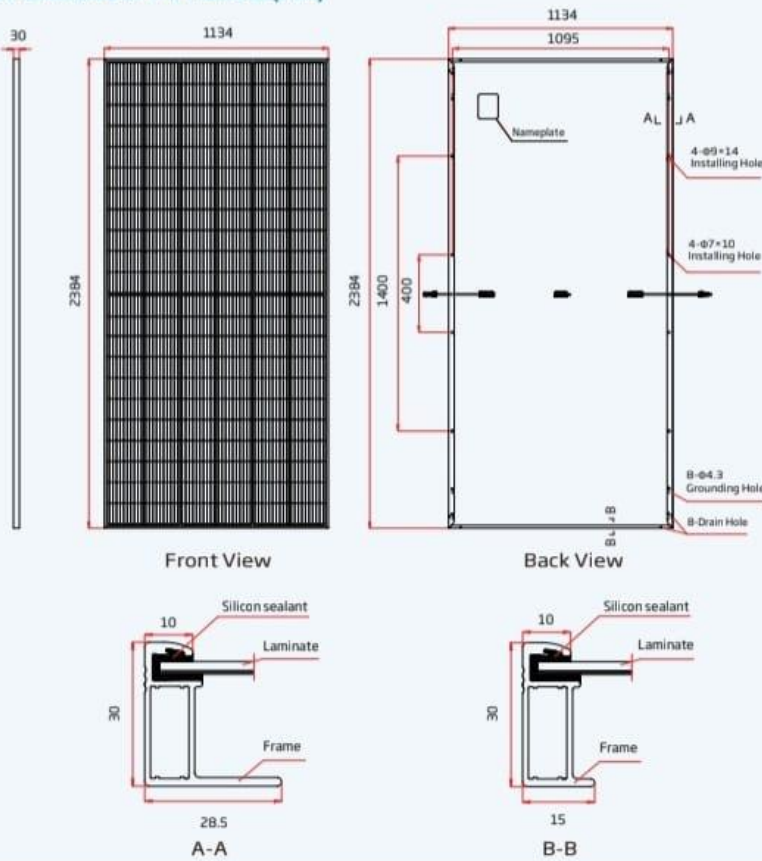
Comprehensive Products and System Certificates



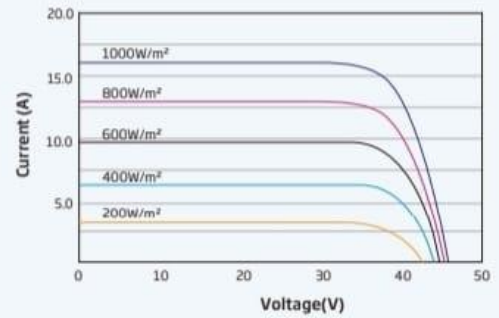
IEC61215/IEC61730/IEC61701/IEC62716
 ISO 9001: Quality Management System
 ISO 14001: Environmental Management System
 ISO14064: Greenhouse Gases Emissions Verification
 ISO45001: Occupational Health and Safety Management System



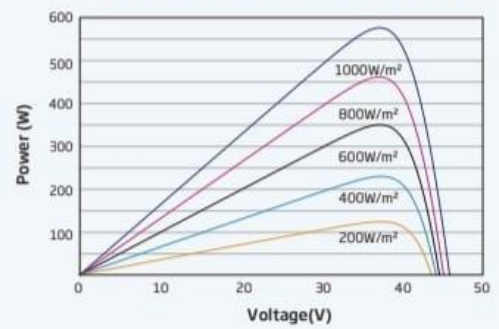
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(575 W)



P-V CURVES OF PV MODULE(575W)



ELECTRICAL DATA (STC)

Parameter	565	570	575	580	585
Peak Power Watts- P_{MAX} (Wp)*	565	570	575	580	585
Power Tolerance- P_{MAX} (W)	0 ~ +5				
Maximum Power Voltage- V_{MPP} (V)	38.3	38.5	38.8	39.0	39.3
Maximum Power Current- I_{MPP} (A)	14.76	14.79	14.83	14.86	14.90
Open Circuit Voltage- V_{oc} (V)	45.6	45.8	46.1	46.3	46.6
Short Circuit Current- I_{sc} (A)	15.81	15.85	15.90	15.94	15.99
Module Efficiency η_m (%)	20.9	21.1	21.3	21.5	21.6

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

ELECTRICAL DATA (NOCT)

Parameter	428	431	435	439	443
Maximum Power- P_{MAX} (Wp)	428	431	435	439	443
Maximum Power Voltage- V_{MPP} (V)	35.3	35.5	35.8	35.9	36.2
Maximum Power Current- I_{MPP} (A)	12.10	12.13	12.17	12.20	12.24
Open Circuit Voltage- V_{oc} (V)	42.9	43.1	43.4	43.6	43.9
Short Circuit Current- I_{sc} (A)	12.74	12.77	12.81	12.84	12.88

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

MECHANICAL DATA

Solar Cells	Monocrystalline
No. of cells	132 cells
Module Dimensions	2384 × 1134 × 30 mm (93.86 × 44.65 × 1.18 inches)
Weight	28.8kg (63.49 lb)
Glass	3.2 mm (0.13 inches), High Transmission, Tempered Glass
Encapsulant material	EVA/POE
Backsheet	White
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized
Connector	MC4 EVO2 / TS4 Plus/ 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)
Max Series Fuse Rating	30A

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