



BACKSHEET MONOCRYSTALLINE MODULE

PRODUCT TSM-DE19R  
PRODUCT RANGE 565-585W

585W

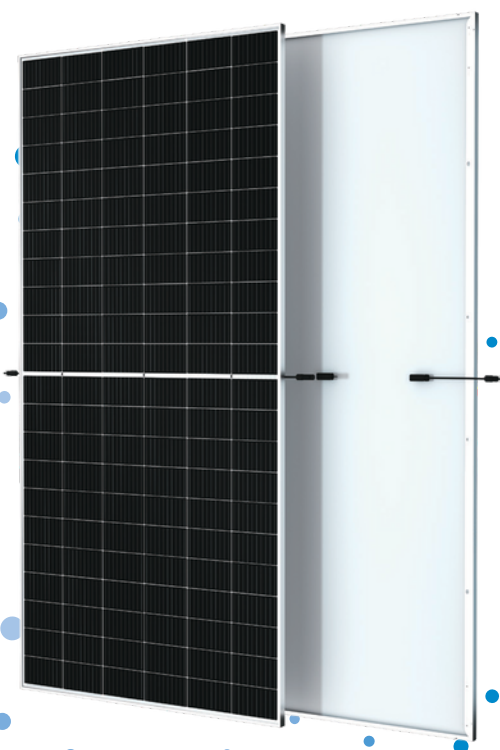
MAXIMUM POWER OUTPUT

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 1st 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

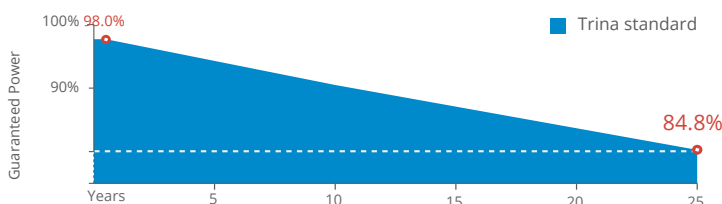
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



### 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



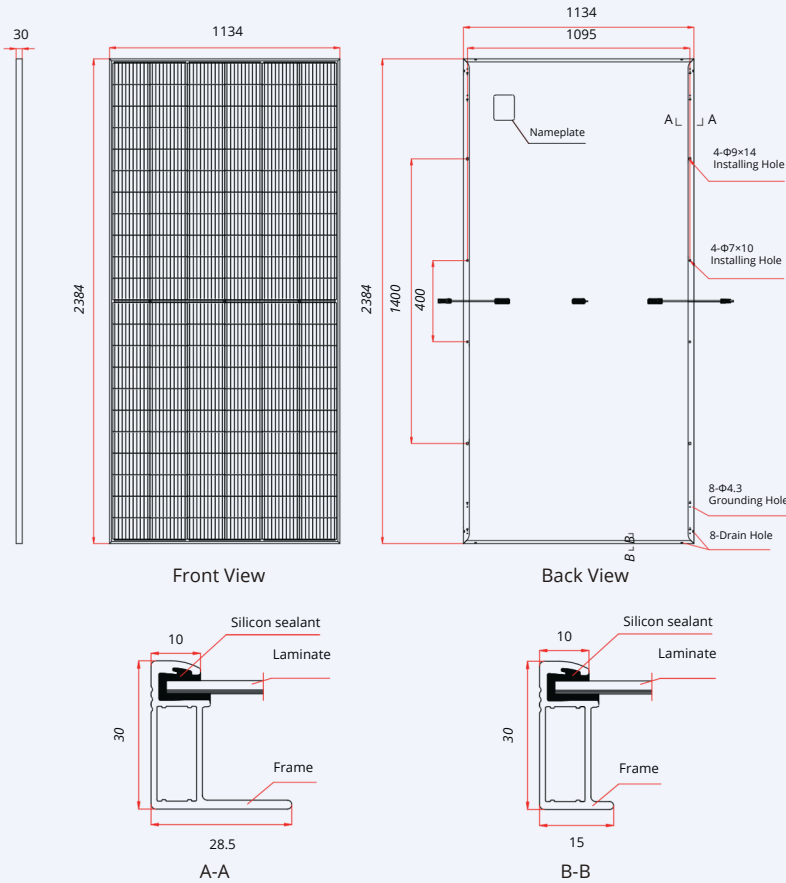
### Comprehensive Products and System Certificates



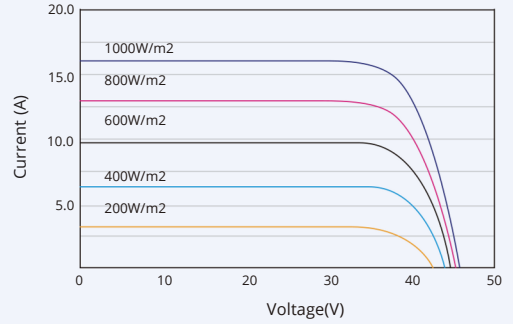
IEC61215/IEC61730/IEC61701/IEC62716/UL61730  
 ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System  
 ISO14064: Greenhouse Gases Emissions Verification  
 ISO45001: Occupational Health and Safety Management System



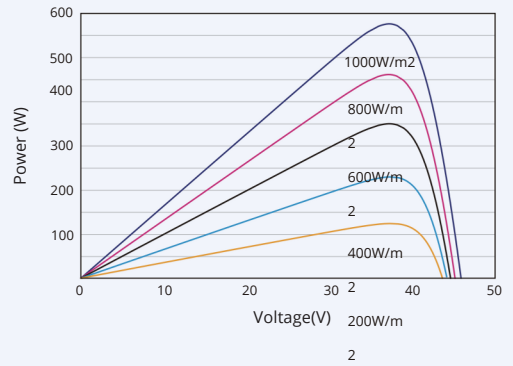
## DIMENSIONS OF PV MODULE(mm)



## I-V CURVES OF PV MODULE(575 W)



## P-V CURVES OF PV MODULE(575W)



## ELECTRICAL DATA (STC)

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 $\eta_m$ (%)	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)

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	EVA/POE
material Backsheet	White
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm2 (0.006 inches2), 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 $R_{MAX}$	-0.34%/°C
Temperature Coefficient of $V_{OC}$	0.25%/°C
Temperature Coefficient of $I_{SC}$	0.04%/°C

## MAXIMUM RATINGS

Operational	-40~+85°C
Temperature Maximum	1500V DC (IEC)
System Voltage Max	30A
Series Fuse Rating	

## 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

## Comprehensive Products and System Certificates

