



**BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE**

PRODUCT: TSM-DEG19RC.20

PRODUCT RANGE: 555-575W

**575W**

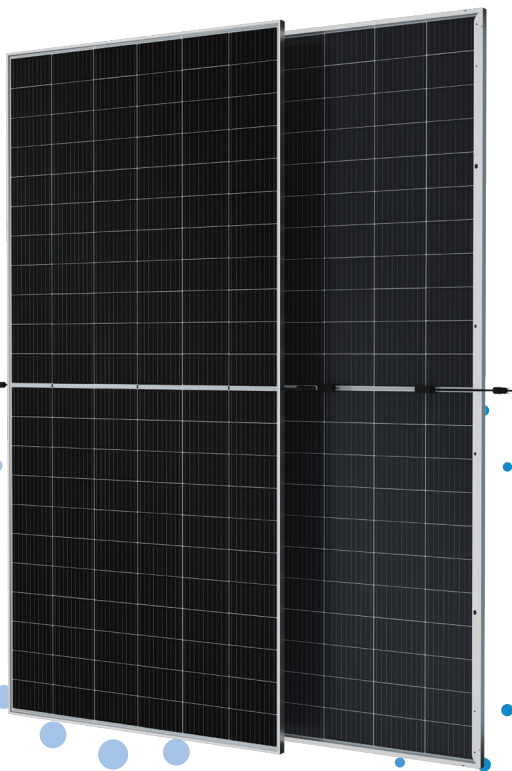
MAXIMUM POWER OUTPUT

**0~+5W**

POSITIVE POWER TOLERANCE

**21.3%**

MAXIMUM EFFICIENCY



**High customer value**

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



**High power up to 575W**

- Up to 21.3% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



**High reliability**

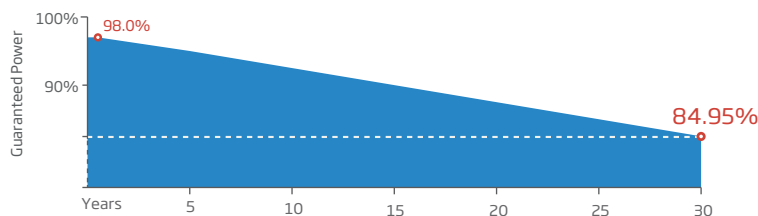
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive 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
- Up to 25% additional power gain from back side depending on albedo

**Trina Solar's Vertex Bifacial Dual Glass Performance Warranty**



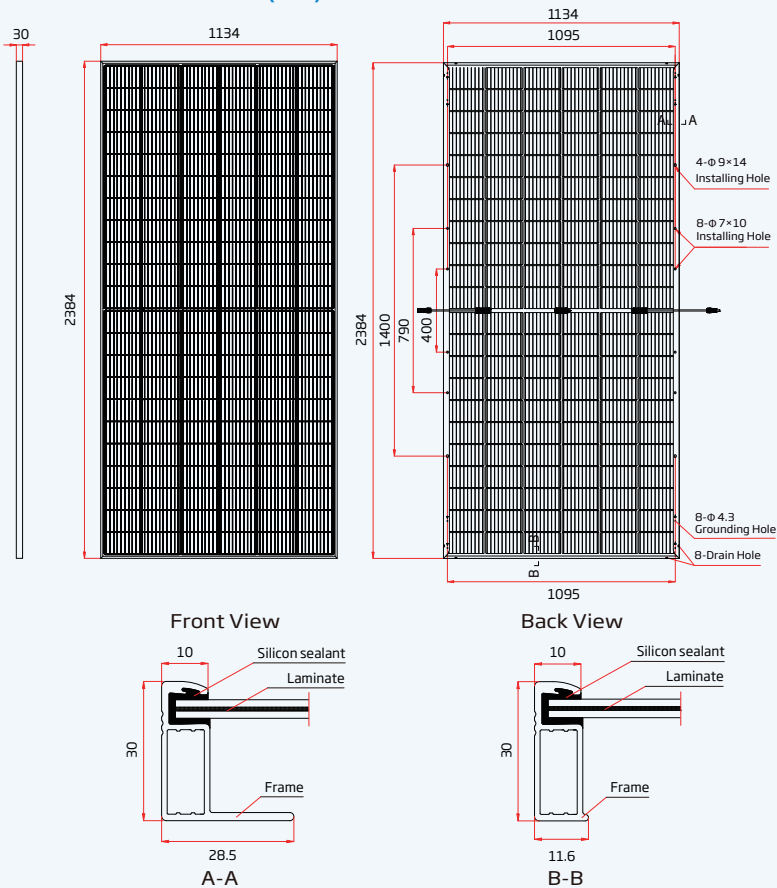
**Comprehensive Products and System Certificates**



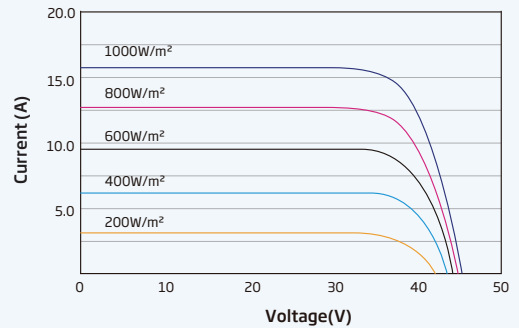
IEC61215/IEC61730/IEC61701/IEC62716  
 ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System  
 ISO14064: Greenhouse Gases Emissions Verification  
 ISO45001: Occupational Health and Safety Management System



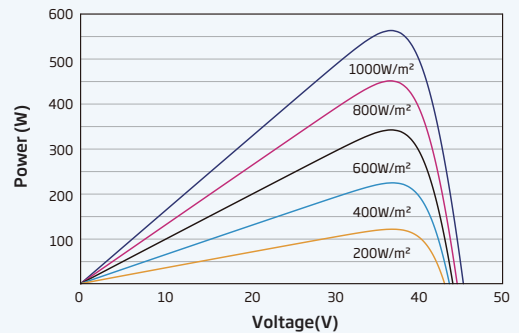
### DIMENSIONS OF PV MODULE(mm)



### I-V CURVES OF PV MODULE(565 W)



### P-V CURVES OF PV MODULE(565 W)



### ELECTRICAL DATA (STC)

Peak Power Watts - $P_{MAX}$ (Wp)*	555	560	565	570	575
Power Tolerance- $P_{MAX}$ (W)	0 ~ +5				
Maximum Power Voltage - $V_{MPP}$ (V)	37.7	37.9	38.2	38.4	38.7
Maximum Power Current - $I_{MPP}$ (A)	14.72	14.76	14.80	14.84	14.87
Open Circuit Voltage - $V_{OC}$ (V)	45.0	45.2	45.5	45.7	46.0
Short Circuit Current - $I_{SC}$ (A)	15.80	15.86	15.90	15.93	15.97
Module Efficiency $\eta_m$ (%)	20.5	20.7	20.9	21.1	21.3

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

### Electrical characteristics with different power bin (reference to 10% Irradiance ratio)

Total Equivalent power - $P_{MAX}$ (Wp)	594	599	605	610	615
Maximum Power Voltage - $V_{MPP}$ (V)	37.7	37.9	38.2	38.4	38.7
Maximum Power Current - $I_{MPP}$ (A)	15.75	15.81	15.83	15.88	15.90
Open Circuit Voltage - $V_{OC}$ (V)	45.0	45.2	45.5	45.7	46.0
Short Circuit Current - $I_{SC}$ (A)	16.91	16.97	17.01	17.05	17.09
Irradiance ratio (rear/front)	10%				

Power Bifaciality: 70±5%.

### ELECTRICAL DATA (NOCT)

Maximum Power - $P_{MAX}$ (Wp)	420	424	428	431	436
Maximum Power Voltage - $V_{MPP}$ (V)	34.8	34.9	35.2	35.4	35.7
Maximum Power Current - $I_{MPP}$ (A)	12.07	12.12	12.15	12.18	12.22
Open Circuit Voltage - $V_{OC}$ (V)	42.4	42.6	42.8	43.0	43.3
Short Circuit Current - $I_{SC}$ (A)	12.73	12.78	12.81	12.84	12.87

NOCT: Irradiance at 800W/m<sup>2</sup>, 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	33.7 kg (74.3 lb)
Front Glass	2.0 mm (0.08 inches), High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	EVA/POE
Back Glass	2.0 mm (0.08 inches), Heat Strengthened Glass (White Grid Glass)
Frame	30mm(1.18 inches) Anodized Aluminium Alloy
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> (0.006 inches <sup>2</sup> ) Portrait: 350/280 mm(13.78/11.02 inches) 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)
Max Series Fuse Rating	35A

### WARRANTY

12 year Product Workmanship Warranty  
30 year Power Warranty  
2% first year degradation  
0.45% Annual Power Attenuation

(Please refer to product warranty for details)

### PACKAGING CONFIGURATION

Modules per box: 36 pieces  
Modules per 40' container: 720 pieces