



BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE

PRODUCT: TSM-DEG19RC.20
PRODUCT RANGE: 555-580W

580W

MAXIMUM POWER OUTPUT

0~+5W

BINNING TOLERANCE

21.5%

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 580W

- 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

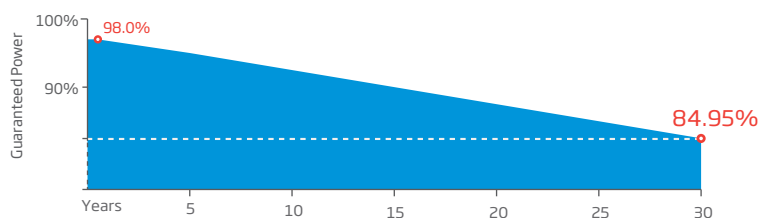
- Minimized micro-cracks with innovative non-destructive cutting technology
- Ensured PID resistance through cell process and module material control and fire class rating C
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance 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



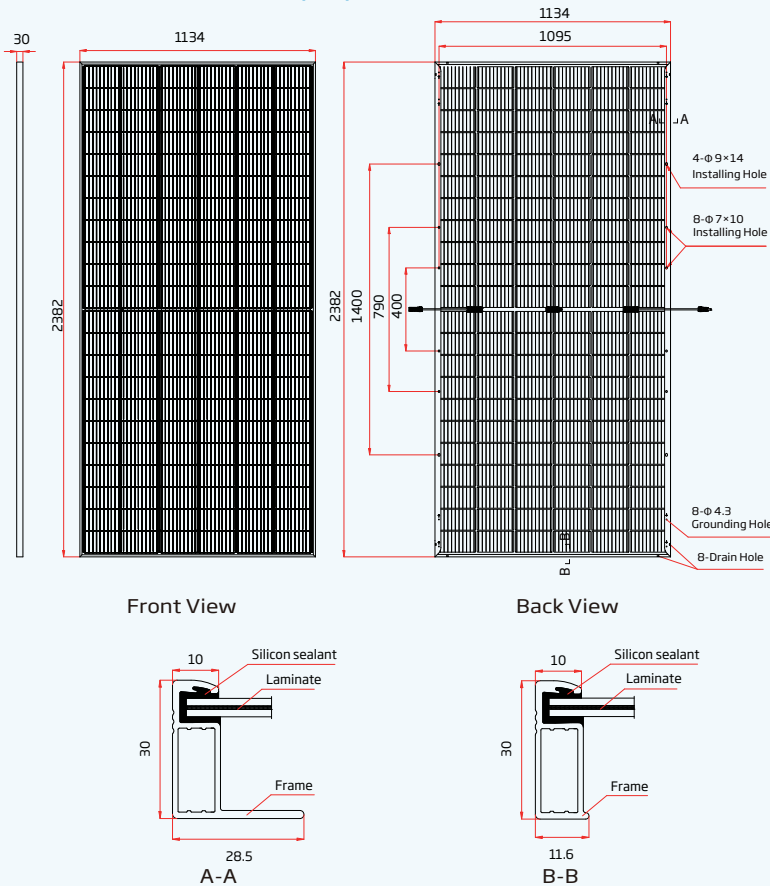
Comprehensive Products and System Certificates



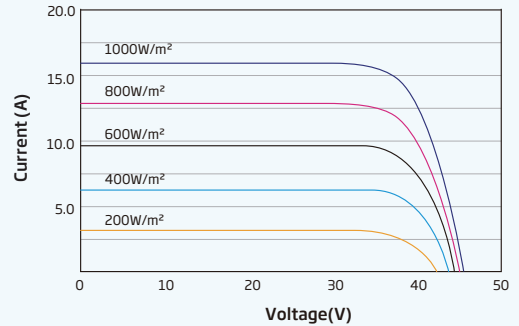
IEC61215/IEC61730/IEC61701/IEC62716
 ISO 9001: Quality Management System
 ISO 14001: Environmental Management System
 ISO14064: Greenhouse Gases Emissions Verification
 ISO45001: Occupational Health and Safety Management System



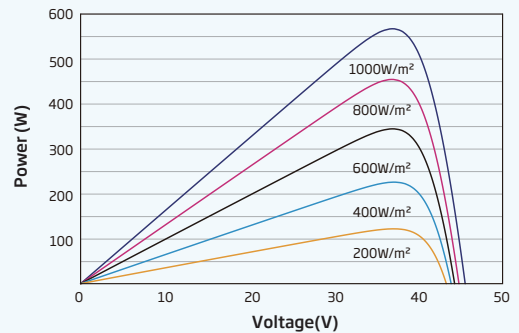
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(570 W)



P-V CURVES OF PV MODULE(570 W)



ELECTRICAL DATA (STC) TSM-XXXDEG19RC.20 (XXX=555-580)

Peak Power Watts -P _{MAX} (Wp)*	555	560	565	570	575	580
Binning Tolerance-P _{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V _{MPP} (V)	37.7	37.9	38.2	38.4	38.7	38.9
Maximum Power Current-I _{MPP} (A)	14.72	14.76	14.80	14.84	14.87	14.91
Open Circuit Voltage-V _{OC} (V)	45.0	45.2	45.5	45.7	46.0	46.2
Short Circuit Current-I _{SC} (A)	15.80	15.86	15.90	15.93	15.97	16.01
Module Efficiency η _m (%)	20.5	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 characteristics with different power bin (reference to 10% Irradiance ratio)

Total Equivalent power -P _{MAX} (Wp)	594	599	605	610	615	620
Maximum Power Voltage-V _{MPP} (V)	37.7	37.9	38.2	38.4	38.7	38.9
Maximum Power Current-I _{MPP} (A)	15.75	15.81	15.83	15.88	15.90	15.94
Open Circuit Voltage-V _{OC} (V)	45.0	45.2	45.5	45.7	46.0	46.2
Short Circuit Current-I _{SC} (A)	16.91	16.97	17.01	17.05	17.09	17.13
Irradiance ratio (rear/front)	10%					

Power Bifaciality:70±5%.

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	420	424	428	431	436	439
Maximum Power Voltage-V _{MPP} (V)	34.8	34.9	35.2	35.4	35.7	35.8
Maximum Power Current-I _{MPP} (A)	12.07	12.12	12.15	12.18	12.22	12.25
Open Circuit Voltage-V _{OC} (V)	42.4	42.6	42.8	43.0	43.3	43.5
Short Circuit Current-I _{SC} (A)	12.73	12.78	12.81	12.84	12.87	12.90

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	2382×1134×30 mm (93.78×44.65×1.18 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 ² (0.006 inches ²) Portrait: 350/280 mm(13.78/11.02 inches) Length can be customized
Connector	Staubli MC4 EVO2 / Trina Solar TS4 Plus / Trina Solar TS4

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P _{MAX}	-0.34%/°C
Temperature Coefficient of Voc	-0.25%/°C
Temperature Coefficient of Isc	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