**Vertex**

**BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE**

**PRODUCT:** TSM-DEG19C.20  
**PRODUCT RANGE:** 535-555W

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**555W**

**MAXIMUM POWER OUTPUT**

**0~+5W**

**POSITIVE POWER TOLERANCE**

**21.2%**

**MAXIMUM EFFICIENCY**

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**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 555W**

- Up to 21.2% 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

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

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**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
**BIFACIAL DUAL GLASS MONOCRYSTALLINE MODULE**

**DIMENSIONS OF PV MODULE (mm)**

- **Height**: 1096 mm
- **Width**: 2384 mm
- **Depth**: 35 mm

**I-V CURVES OF PV MODULE (540W)**

**P-V CURVES OF PV MODULE (540W)**

**ELECTRICAL DATA (STC)**

- **Peak Power Watts - Pmax (Wp)**: 535
- **Power Tolerance - Pmax (W)**: 0% to +5%
- **Maximum Power Voltage - Vmp (V)**: 31.2
- **Maximum Power Current - Imp (A)**: 17.16
- **Open Circuit Voltage - Voc (V)**: 37.5
- **Short Circuit Current - Isc (A)**: 18.24
- **Module Efficiency (ηm (%))**: 20.5%

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

- **Total Equivalent power - Pmax (Wp)**
- **Maximum Power Voltage - Vmp (V)**
- **Maximum Power Current - Imp (A)**
- **Open Circuit Voltage - Voc (V)**
- **Short Circuit Current - Isc (A)**
- **Irradiance ratio (near/forward)**

**MECHANICAL DATA**

- **No. of cells**: 110 cells
- **Module Dimensions**: 2384 x 1096 x 35 mm (93.86 x 43.15 x 1.38 in)
- **Weight**: 32.3 kg (71.2 lb)
- **Front Glass**: 2.0 mm (0.08 in), High Transmission, All Coated/White Strengthened Glass
- **Encapsulant material**: EVA/POE
- **Back Glass**: 2.0 mm (0.08 in), Heat Strengthened Glass (White Grid Glass)
- **Frame**: 35mm (1.38 in) Anodized Aluminum Alloy
- **J-Box**: IP 68 rated
- **Cables**: Photovoltaic Technology Cable 4.0mm² (0.006 in²)
- **Portrait**: 350/280 mm (13.78/11.02 in)**
- **Landscape**: 1400/1400 mm (55.1/55.1 in)**

**Connector**: MC4 EVO2 / TS4

*Lengths can be customized.

**MAXIMUM RATINGS**

- **Operational Temperature**: -40°C to +85°C
- **Maximum System Voltage**: 1500V DC (IEC)
- **Maximum System Voltage**: 1500V DC (UL)

**PACKAGING CONFIGURATION**

- Modules per box: 31 pieces
- Modules per 40’ container: 527 pieces

**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*

**CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.**

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