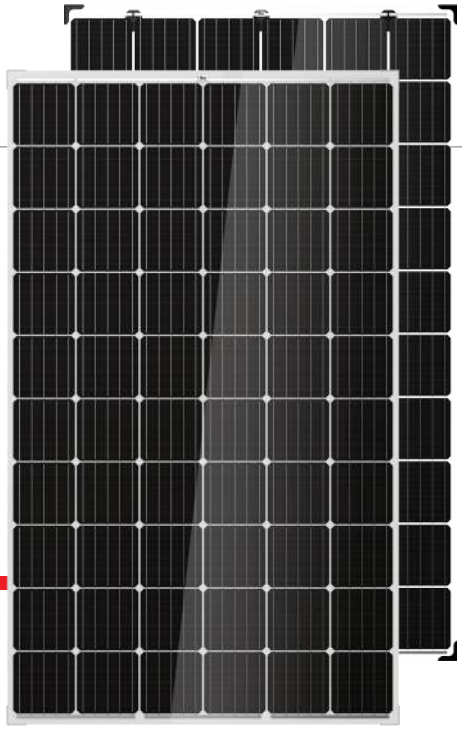
Mono Multi Solutions

THE DUOMAX M PLUS MODULE



60 CELL
MONOCRYSTALLINE MODULE

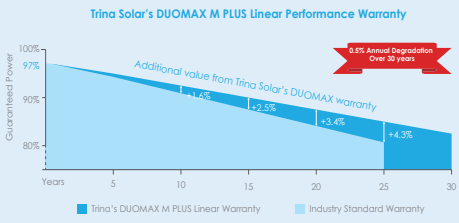
270-295W
POWER OUTPUT RANGE

17.9%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

As a leading global manufacturer of next generation photovoltaic products, we believe close cooperation with our partners is critical to success. With local presence around the globe, Trina is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners as the backbone of our shared success in driving Smart Energy Together.

Trina Solar Limited
www.trinasolar.com



Trinasolar
Smart Energy Together

Highly reliable due to stringent quality control
- PID resistant and free of snail trails
- Increased module robustness to minimize micro-cracks
- 100% EL double inspection

Enhanced safety
- Fire class A certified by TUV Rheinland according to fire test IEC 61730-2 / MST 23
- Certified for fire type13 (UL 1703)

Increased value
- Higher maximum system voltage reduces BOS costs
- 30 year linear warranty
- 0.5% annual degradation
- Low thermal coefficients for more energy production at higher temperatures
- Available with transparent encapsulant, with higher light transmission for carport and greenhouse applications

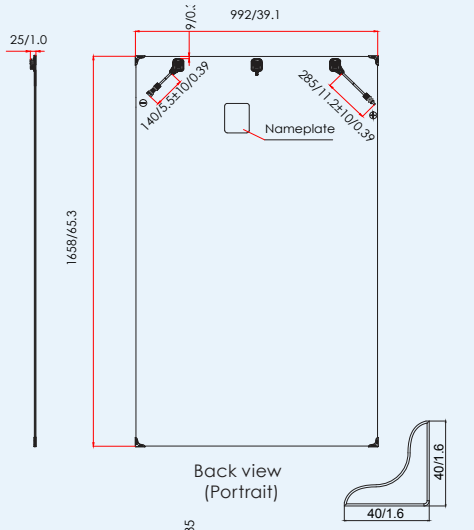
Certified to withstand the most challenging environmental conditions
- Module coating resistant to sand, acid, and alkali
- 2400 Pa wind load*
- 5400 Pa snow load*
- 35 mm hail stones at 97 km/h

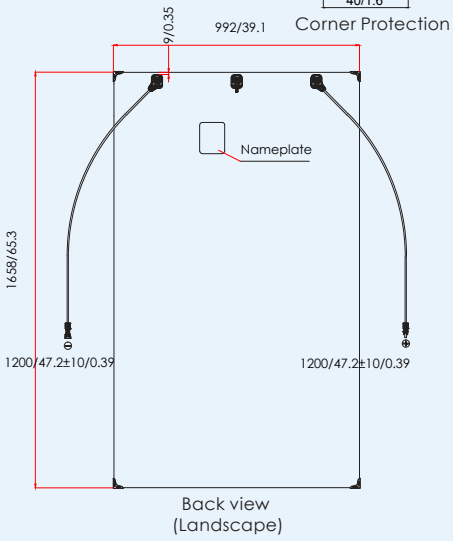
Comprehensive products and system certificates
- IEC 61215/ IEC 61730/ UL 1703/ IEC 61701/IEC 62716
- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO 14064: Greenhouse Gases Emissions Verification
- OHSAS 18001: Occupation Health and Safety Management System

THE DUOMAX PLUS MODULE

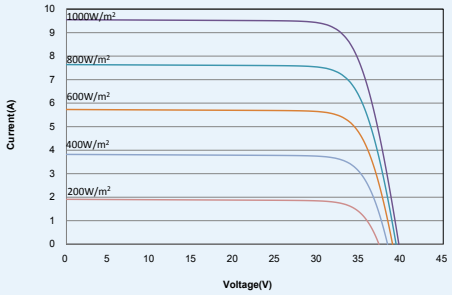
TSM-DEG5(II)

DIMENSIONS OF PV MODULE
unit:mm/inches

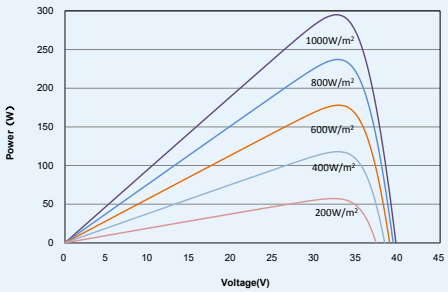




I-V CURVES OF PV MODULE(295W)



P-V CURVES OF PV MODULE(295W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	275	280	285	290	295
Power Output Tolerance-P_{MAX} (W)	0~+5				
Maximum Power Voltage-V_{MPP} (V)	31.4	31.7	31.8	32.2	32.5
Maximum Power Current-I_{MPP} (A)	8.76	8.84	8.97	9.01	9.08
Open Circuit Voltage-V_{OC} (V)	38.7	39.0	39.3	39.5	39.7
Short Circuit Current-I_{SC} (A)	9.26	9.35	9.45	9.50	9.55
Module Efficiency η_m (%)	16.7	17.0	17.3	17.6	17.9

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

ELECTRICAL DATA (NOCT)

Maximum Power-P_{MAX} (Wp)	205	209	212	216	220
Maximum Power Voltage-V_{MPP} (V)	29.2	29.4	29.6	29.9	30.2
Maximum Power Current-I_{MPP} (A)	7.02	7.10	7.17	7.23	7.28
Open Circuit Voltage-V_{OC} (V)	36.0	36.3	36.6	36.7	36.9
Short Circuit Current-I_{SC} (A)	7.48	7.55	7.63	7.67	7.71

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

MECHANICAL DATA

Solar Cells	Monocrystalline 156 × 156 mm (6 inches)
Cell Orientation	60 cells (6 × 10)
Module Dimensions	1658 × 992 × 6 mm (65.3 x 39.1 x 0.236 inches) 1664 x 998 x 7.6 mm with corner (65.5 x 39.3 x 0.299 inches) 1664 x 998 x 25 mm with corner and junction box (65.5 x 39.3 x 0.984 inches)
Weight	23 kg (51 lb)
Front Glass	2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
EVA	White
Back Glass	2.5 mm (0.10 inches), Heat Strengthened Glass
Frame	Frameless
J-Box	IP 67 or IP 68 rated
Cables	Photovoltaic Technology Cable 4.0 mm² (0.006 inches²) Portrait: 140/285 mm (5.5/11.2 inches) Landscape: 1200/1200 mm (47.2/47.2 inches)
Connector	MC4 Compatible of Amphenol H4/ UTX (1500V)
Fire Type	Type 13

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2°C)
Temperature Coefficient of P_{MAX}	- 0.39%/°C
Temperature Coefficient of V_{OC}	- 0.29%/°C
Temperature Coefficient of I_{SC}	0.05%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC) 1000VDC (UL)
Max Series Fuse Rating	15A

WARRANTY

10 year Product Workmanship Warranty

30 year Linear Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 30 pieces

Modules per 40' container: 780 pieces

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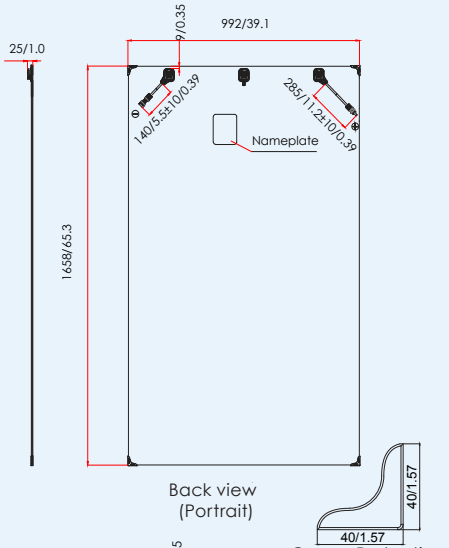
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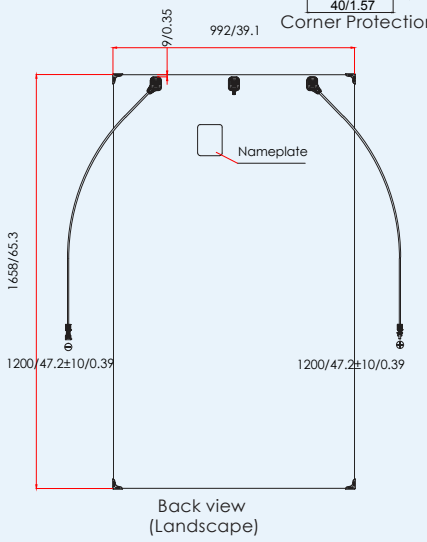
CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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THE DUOMAX PLUS MODULE

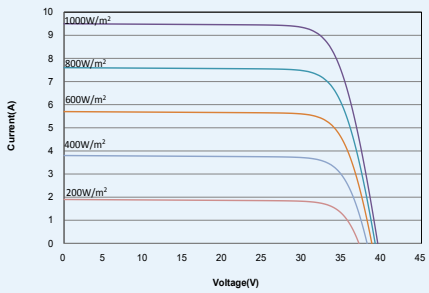
TSM-DEG5.07(II)

DIMENSIONS OF PV MODULE
unit:mm/inches

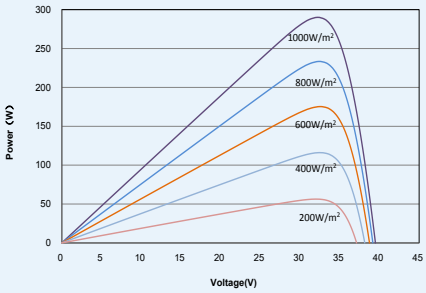




I-V CURVES OF PV MODULE(290W)



P-V CURVES OF PV MODULE(290W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	270	275	280	285	290
Power Output Tolerance-P_{MAX} (W)	0~+5				
Maximum Power Voltage-V_{MPP} (V)	31.2	31.4	31.7	31.8	32.2
Maximum Power Current-I_{MPP} (A)	8.66	8.76	8.84	8.97	9.01
Open Circuit Voltage-V_{OC} (V)	38.4	38.7	39.0	39.3	39.5
Short Circuit Current-I_{SC} (A)	9.18	9.26	9.35	9.45	9.50
Module Efficiency η_m (%)	16.4	16.7	17.0	17.3	17.6

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

ELECTRICAL DATA (NOCT)

Maximum Power-P_{MAX} (Wp)	201	205	209	212	216
Maximum Power Voltage-V_{MPP} (V)	28.9	29.2	29.4	29.6	29.9
Maximum Power Current-I_{MPP} (A)	6.96	7.02	7.10	7.17	7.23
Open Circuit Voltage-V_{OC} (V)	35.7	36.0	36.3	36.6	36.7
Short Circuit Current-I_{SC} (A)	7.41	7.48	7.55	7.63	7.67

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

MECHANICAL DATA

Solar Cells	Monocrystalline 156 × 156 mm (6 inches)
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