



THE DUOMAX MODULE

TSM-PEG14

72 CELL
MULTICRYSTALLINE MODULE

305-315W
POWER OUTPUT RANGE

16.1%
MAXIMUM EFFICIENCY

0/+5W
POSITIVE POWER TOLERANCE

TRINA SOLAR: A STRONG AND RELIABLE PARTNER

As a leading global manufacturer of next generation photovoltaic products, Trina Solar is committed to building mutually beneficial alliances with installers, developers, distributors and technological partners as the backbone of our shared goal to drive Smart Energy Together. Thanks to an extensive sales and service network with local sales and service teams throughout Europe, Trina Solar is perfectly positioned to support your needs. With Trina Solar as your strong, bankable partner you can rest assured knowing that you've made the right choice.

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Improved durability

- Anti PID
- Reduced soiling due to natural cleaning
- Cleaner aesthetics



Enhanced safety

- Fire class A certified by TUV Rheinland according to fire test IEC 61730-2 / MST 23
- Certified for fire type 13 (UL 1703)



Increased value

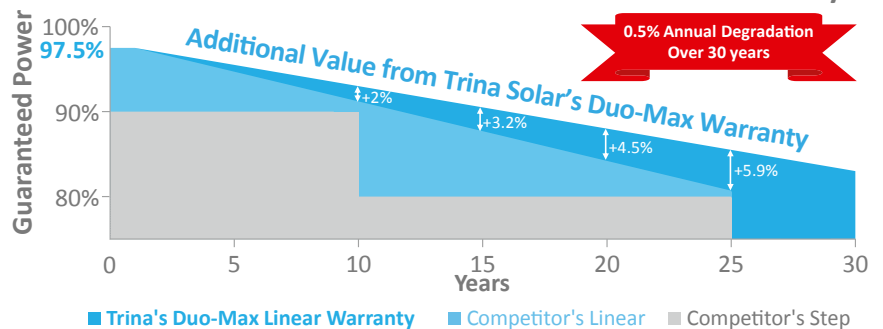
- 1,500 V system voltage reduces BOS costs by increased string length
- 30 year linear warranty
- 0.5% annual degradation



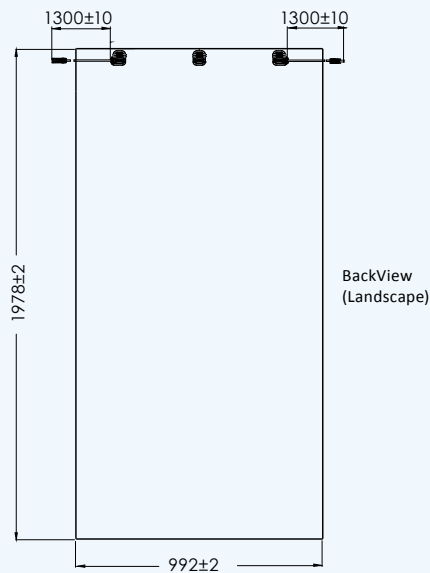
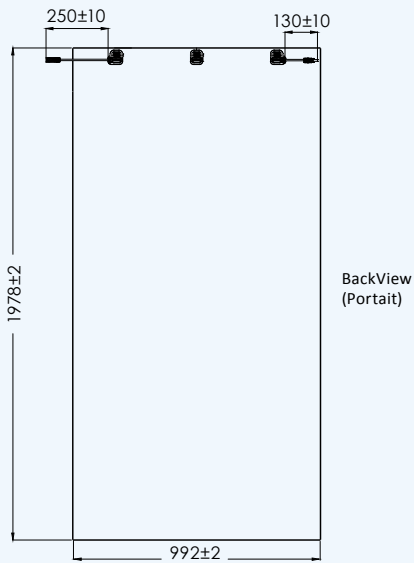
Certified to withstand the most challenging environmental conditions

- Module coating resistant to sand, acid, and alkali
- 2400 Pa wind load
- 5400 Pa snow load
- 35 mm hail stones at 97 km/h

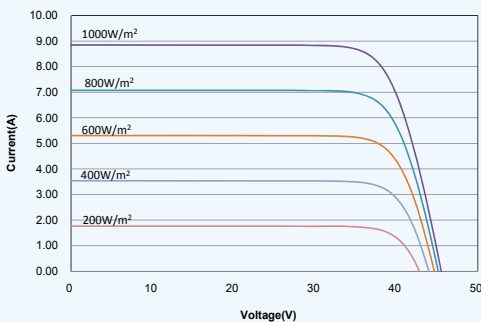
Trina Solar's Duo-Max Linear Performance Warranty



DIMENSIONS OF PV MODULE
(unit:mm)



I-V CURVES OF PV MODULE (310W)



CERTIFICATION



ELECTRICAL DATA @ STC	TSM-305 PEG14	TSM-310 PEG14	TSM-315 PEG14
Peak Power Watts- P_{MAX} (Wp)	305	310	315
Power Output Tolerance- P_{MAX} (W)	0/+5	0/+5	0/+5
Maximum Power Voltage- V_{MPP} (V)	36.6	36.8	37.0
Maximum Power Current- I_{MPP} (A)	8.33	8.42	8.51
Open Circuit Voltage- V_{OC} (V)	45.4	45.6	45.7
Short Circuit Current- I_{SC} (A)	8.82	8.91	8.99
Module Efficiency η_m (%)	15.5	15.8	16.1

STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5 according to EN 60904-3. Typical efficiency reduction of 4.5% at 200 W/m² according to EN 60904-1.

ELECTRICAL DATA @ NOCT	TSM-305 PEG14	TSM-310 PEG14	TSM-315 PEG14
Maximum Power- P_{MAX} (Wp)	222	226	230
Maximum Power Voltage- V_{MP} (V)	33.2	33.3	33.5
Maximum Power Current- I_{MPP} (A)	6.69	6.78	6.86
Open Circuit Voltage (V)- V_{OC} (V)	41.5	41.6	41.8
Short Circuit Current (A)- I_{SC} (A)	7.20	7.20	7.30

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

MECHANICAL DATA

Solar cells	Multicrystalline 156 × 156 mm
Cell orientation	72 cells (6 × 12)
Module dimensions	1978 × 992 × 6 mm (1978 x 992 x 25 mm with junction box)
Weight	28.6 kg
Front Glass	High Transmission, Low Iron, Heat Strengthened Glass, 2.5 mm
EVA	White
Back Glass	Heat Strengthened Glass, 2.5 mm
Frame	Frameless
J-Box	IP 65 rated or IP 67 rated
Cables	Photovoltaic Technology cable 4.0 mm ² , Portrait: 250/130 mm, Landscape: 1300/1300 mm.
Connector	MC4-EVO3 Compatible

TEMPERATURE RATINGS

Nominal Operating Cell Temperature (NOCT)	44°C (±2K)
Temperature Coefficient of P_{MAX}	- 0.41%/K
Temperature Coefficient of V_{OC}	- 0.32%/K
Temperature Coefficient of I_{SC}	0.05%/K

MAXIMUM RATINGS

Operational Temperature	-40 to +85°C
Maximum System Voltage	1500 V DC (IEC)
Max Series Fuse Rating	15A
Mechanical Load*	5400 Pa
Wind Load*	2400 Pa

WARRANTY

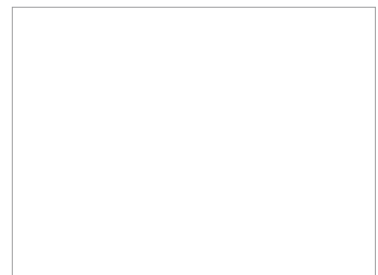
- 10 year Product Workmanship Warranty
- 30 year Linear Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

- Modules per box: 30 pieces
- Modules per 40' container: 660 pieces

*Max. mechanical loading values depend on the mounting method applied and only clamps approved by Trina Solar should be used.



TSM_EN_2015_C