

THE TALLMAX^M

FRAMED 72 LAYOUT MODULE



72 LAYOUT
MONOCRYSTALLINE MODULE

380-410W
POWER OUTPUT RANGE

20.2%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

PRODUCTS | POWER RANGE
TSM-DE15H(II) | 380-410W



Ideal for large scale installations

- Reduce BOS cost with higher power bin and 1500V system voltage



Half-cell design brings higher efficiency

- New cell string layout and split J-box location to reduce the energy loss caused by shading between modules
- Low thermal coefficients for greater energy production at high operating temperature
- Low cell connection power loss due to half-cell layout(144 monocrystalline)
- Passivated Emitter and Rear Cell (PERC Technology)



Highly reliable due to stringent quality control

- Over 30 in-house tests (UV, TC, HF etc)
- Internal test requirement of Trina more stringent than certification authority
- PID resistant
- 100% EL double inspection



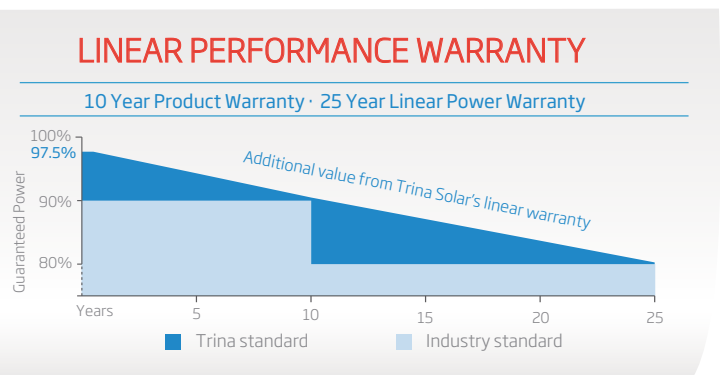
Certified to withstand the most challenging environmental conditions

- 2400 Pa negative load
- 5400 Pa positive load
- * 2400/5400 is the measured load, and the safety factor is 1.5 times

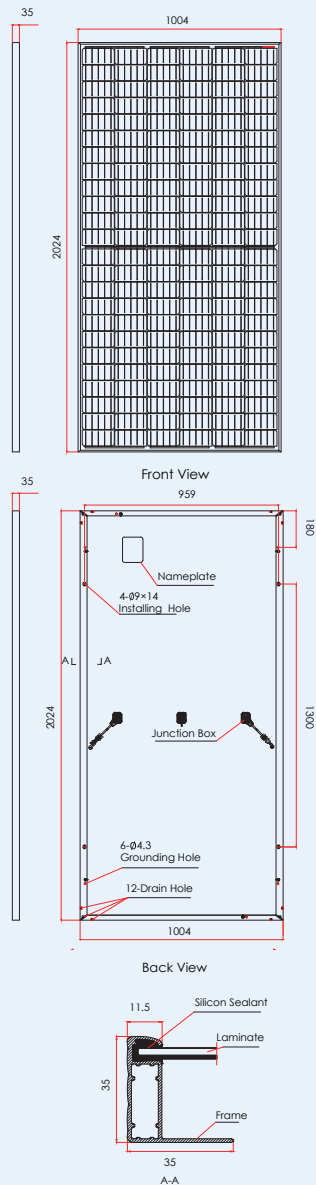
Founded in 1997, Trina Solar is the world's leading total solutions provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

Comprehensive Products And System Certificates

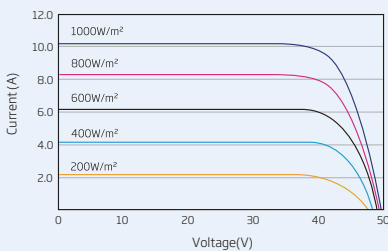
IEC61215/IEC61730/UL1703/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System



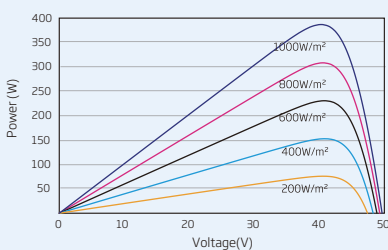
DIMENSIONS OF PV MODULE(mm)



I-V CURVES OF PV MODULE(390W)



P-V CURVES OF PV MODULE(390W)



ELECTRICAL DATA (STC)

| | | | | | | | |
|---------------------------------------|--------|-------|-------|-------|-------|-------|-------|
| Peak Power Watts- P_{MAX} (Wp)* | 380 | 385 | 390 | 395 | 400 | 405 | 410 |
| Power Output Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 39.6 | 40.1 | 40.5 | 40.8 | 41.1 | 41.4 | 41.7 |
| Maximum Power Current- I_{MPP} (A) | 9.59 | 9.61 | 9.64 | 9.69 | 9.74 | 9.79 | 9.84 |
| Open Circuit Voltage- V_{OC} (V) | 48.1 | 48.5 | 49.7 | 50.1 | 50.4 | 50.8 | 51.2 |
| Short Circuit Current- I_{SC} (A) | 9.99 | 10.03 | 10.08 | 10.13 | 10.18 | 10.23 | 10.29 |
| Module Efficiency η_m (%) | 18.7 | 18.9 | 19.2 | 19.4 | 19.7 | 19.9 | 20.2 |

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

ELECTRICAL DATA (NOCT)

| | | | | | | | |
|--------------------------------------|------|------|------|------|------|------|------|
| Maximum Power- P_{MAX} (Wp) | 287 | 291 | 295 | 298 | 302 | 306 | 310 |
| Maximum Power Voltage- V_{MPP} (V) | 37.4 | 37.9 | 38.4 | 38.7 | 38.9 | 39.1 | 39.3 |
| Maximum Power Current- I_{MPP} (A) | 7.66 | 7.67 | 7.68 | 7.71 | 7.76 | 7.81 | 7.86 |
| Open Circuit Voltage- V_{OC} (V) | 44.4 | 45.6 | 46.8 | 47.2 | 47.4 | 47.6 | 47.8 |
| Short Circuit Current- I_{SC} (A) | 8.05 | 8.09 | 8.13 | 8.17 | 8.21 | 8.25 | 8.29 |

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

MECHANICAL DATA

| | |
|----------------------|---|
| Solar Cells | Monocrystalline |
| Cell Orientation | 144 cells (6 × 24) |
| Module Dimensions | 2024 × 1004 × 35 mm (79.69 × 39.53 × 1.38 inches) |
| Weight | 22.8kg (50.3lb) |
| Glass | 3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant Material | EVA |
| Backsheet | White |
| Frame | 35 mm (1.38 inches) Anodized Aluminium Alloy |
| J-Box | IP 68 rated |
| Cables | Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²), Portrait: N 140mm/P 285mm(5.51/11.22inches) Landscape: N 1400 mm /P 1400 mm (55.12/55.12 inches) |
| Connector | MC4 EVO2/TS4 |

TEMPERATURE RATINGS

| | |
|--|-------------|
| NMOT(Nominal Module Operating Temperature) | 41°C (±3°C) |
| Temperature Coefficient of P_{MAX} | - 0.37%/°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) 1500V DC (UL) |
| Max Series Fuse Rating | 20A |

(DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)

WARRANTY

| |
|--------------------------------------|
| 10 year Product Workmanship Warranty |
| 25 year Linear Power Warranty |

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

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

