THE
TALLMAX ⓜ plus⁺

FRAMED 144 HALF-CELL MODULE

144-Cell
MONOCRYSTALLINE MODULE

385-400W
POWER OUTPUT RANGE

19.7%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

PRODUCTS	COLOR OF FRAME	POWER RANGE
TSM-DE15H(II)	Silver	385-400W

Founded in 1997, Trina Solar is the world's leading comprehensive solutions provider for solar energy. we believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. 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.
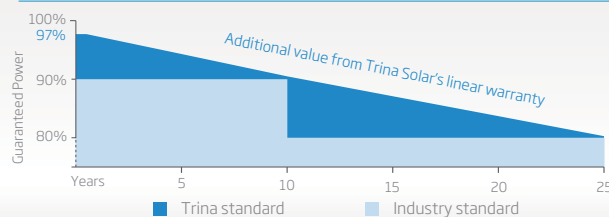
Comprehensive Products And System Certificates

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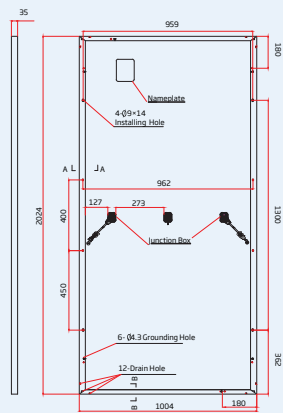   Management System

Increased value
• Reduce BOS cost with high power bin and 1500V system voltage
• Low thermal coefficients for greater energy production at higher temperature

Half-cell design brings higher efficiency
• New cell string layout and split J-box location to reduce the energy loss caused by inter-row shading
• Integrated LRF(Light Redirecting Film) to enhance power, specially for ground-mount applications
• Lower cell connection power losses due to half-cell layout (144 monocrystalline)

Highly reliable due to stringent quality control
• Over 30 in-house tests (UV, TC, HF etc)
• Increased module robustness to minimize micro-cracks
• PID resistant and free of snail trails
• Internal test requirement of Trina more stringent than certification authority

Certified to withstand the most challenging environmental conditions
• 2400 Pa negative load
• 5400 Pa positive load

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty · 25 Year Linear Power Warranty

Additional value from Trina Solar's linear warranty

■ Trina standard   ■ Industry standard

Trinasolar

DIMENSIONS OF PV MODULE(mm)

Back View(Portrait)

Nameplate
4-Ø9×14 Installing Hole
Junction Box
6-Ø4.3 Grounding Hole
12-Drain Hole

Back View(Landscape)

Nameplate
4-Ø9×14 Installing Hole
Junction Box
6-Ø4.3 Grounding Hole
12-Drain Hole

Silicon Sealant
Laminate
Frame
(A-A)
(B-B)
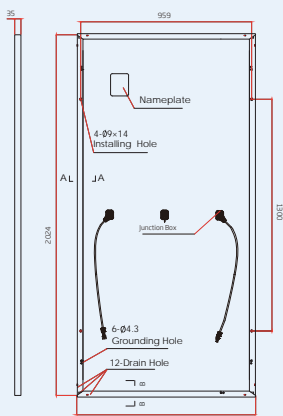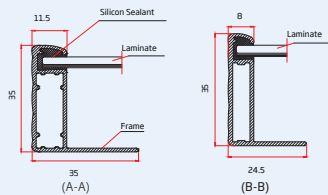
I-V CURVES OF PV MODULE(390W)
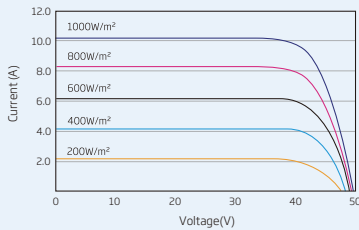
P-V CURVES OF PV MODULE(390W)
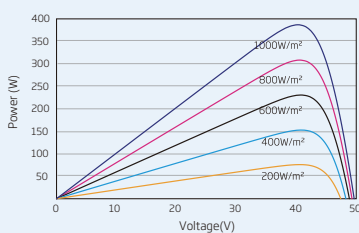
ELECTRICAL DATA (STC)

Peak Power Watts-P$_{MAX}$ (Wp)*	385	390	395	400
Power Output Tolerance-P$_{MAX}$ (W)	0 ~ +5			
Maximum Power Voltage-V$_{MPP}$ (V)	40.1	40.5	40.8	41.1
Maximum Power Current-I$_{MPP}$ (A)	9.61	9.64	9.69	9.74
Open Circuit Voltage-V$_{OC}$ (V)	48.5	49.7	50.1	50.4
Short Circuit Current-I$_{SC}$ (A)	10.03	10.08	10.13	10.18
Module Efficiency η$_m$ (%)	18.9	19.2	19.4	19.7

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

ELECTRICAL DATA (NMOT)

Maximum Power-P$_{MAX}$ (Wp)	291	295	298	302
Maximum Power Voltage-V$_{MPP}$ (V)	37.9	38.4	38.7	38.9
Maximum Power Current-I$_{MPP}$ (A)	7.66	7.68	7.71	7.76
Open Circuit Voltage-V$_{OC}$ (V)	45.6	46.8	47.2	47.4
Short Circuit Current-I$_{SC}$ (A)	8.09	8.13	8.17	8.21

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

MECHANICAL DATA

Solar Cells	Monocrystalline 158.75 × 158.75 mm
Cell Orientation	144 cells (6 × 24)
Module Dimensions	2024 × 1004 × 35 mm (79.69 × 39.53 × 1.38 inches)
Weight	22.8 kg (50.3 lb)
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 w/ 400 m Mounting Holes
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: N 140 mm/P 285 mm(5.51/11.22 inches) Landscape: N 1400 mm /P 1400 mm (55.12/55.12 inches)
Connector	Trina TS4

TEMPERATURE RATINGS

NMOT(Nominal Module OperatingTemperature)	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