

THE TALLMAX^M PLUS[†]

FRAMED 144 HALF-CELL MODULE



144-Cell
MONOCRYSTALLINE MODULE

345-395W

POWER OUTPUT RANGE

19.9%

MAXIMUM EFFICIENCY

0~+5W

POSITIVE POWER TOLERANCE

PRODUCTS	COLOR OF FRAME	POWER RANGE
TSM-DE14H(II)	Silver	345-395W
TSM-DE14H.08(II)	Black	345-395W



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

- Excellent IAM and low light performance validated by 3rd party with cell process and module material optimization
- Better anti-shading performance and lower operating temperature



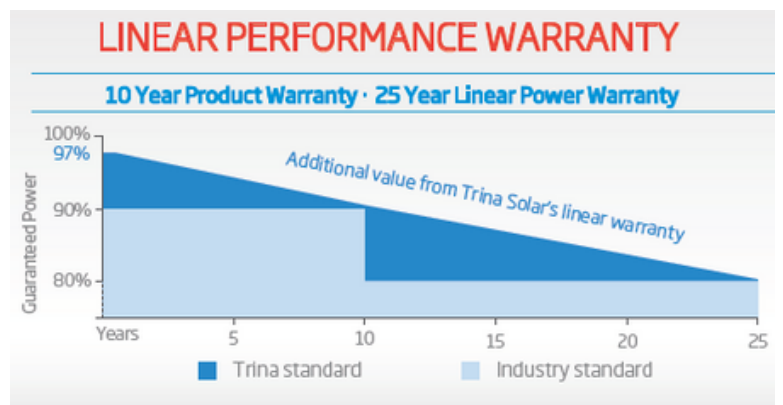
Certified to withstand the most challenging environmental conditions

- 2400 Pa negative load
- 5400 Pa positive load

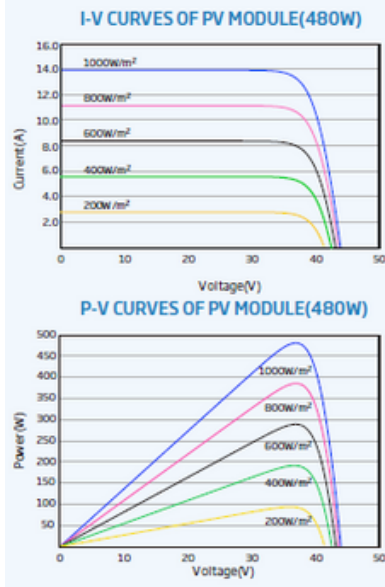
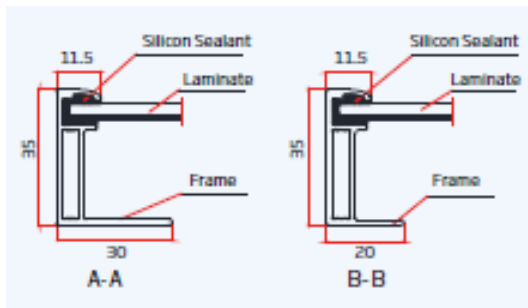
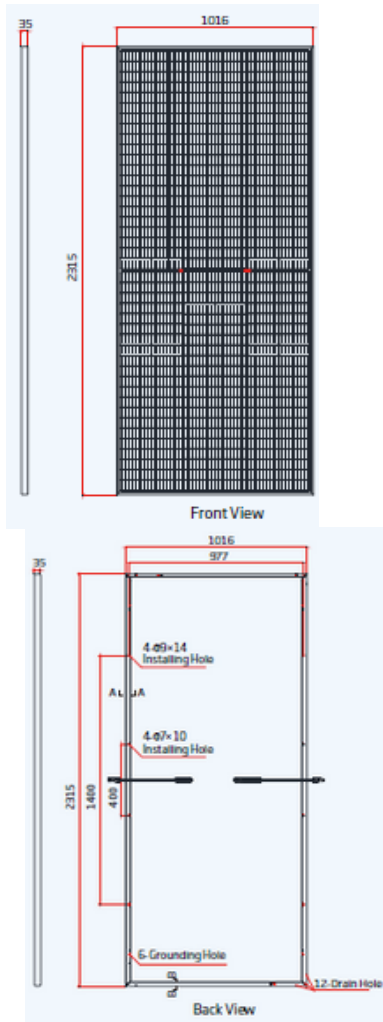
• Founded in 1997, Trina Solar is the world's leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, 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

UL 61730
IEC 61215 / IEC 61730 / IEC 61701 / IEC 62716
ISO 9001: Quality Management System I
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System



DIMENSIONS OF PV MODULE(mm)



ELECTRICAL DATA (STC)

Peak Power Watts-PMAX (Wp)*	470	475	480	485	490
Power Output Tolerance-PMAX (W)	0~+5				
Maximum Power Voltage-VMPP (V)	36.1	36.2	36.3	36.4	36.5
Maximum Power Current-IMPP (A)	13.02	13.12	13.23	13.33	13.43
Open Circuit Voltage-VOC (V)	43	43.1	43.2	43.3	43.4
Short Circuit Current-ISC (A)	13.73	13.8	13.92	13.97	14.07
Module Efficiency η (%)	20	20.2	20.4	20.6	20.8

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

ELECTRICAL DATA (NOCT)

Maximum Power-PMAX (Wp)	354	358	362	365	369
Maximum Power Voltage-VMPP (V)	33.6	33.8	33.9	34	34.1
Maximum Power Current-IMPP (A)	10.53	10.59	10.68	10.72	10.8
Open Circuit Voltage-VOC (V)	40.5	40.6	40.7	40.7	40.8
Short Circuit Current-ISC (A)	11.06	11.12	11.22	11.26	11.34

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

MECHANICAL DATA

Solar Cells	Monocrystalline PERC
Cell Orientation	252 cells (12 × 21)
Module Dimensions	2315 × 1016 × 35 mm (91.14 × 40 × 1.38 inches)
Weight	26.0 kg (57.3 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
J-Box	IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm (0.006 inches), Portrait: N 450 mm/P 450 mm (17.72/17.72 inches), Landscape: N 1400/P 1400 mm (55.12/55.12 inches)
Connector	MC4 EVO2 / TS4

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of PMAX	-0.34%/°C
Temperature Coefficient of VOC	-0.25%/°C
Temperature Coefficient of ISC	0.04%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC (IEC)
	1500V DC (UL)
Max Series Fuse Rating	25A

WARRANTY

12 year Product Workmanship Warranty
25 year Power Warranty

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 31 pieces
Modules per 40' container: 620 pieces