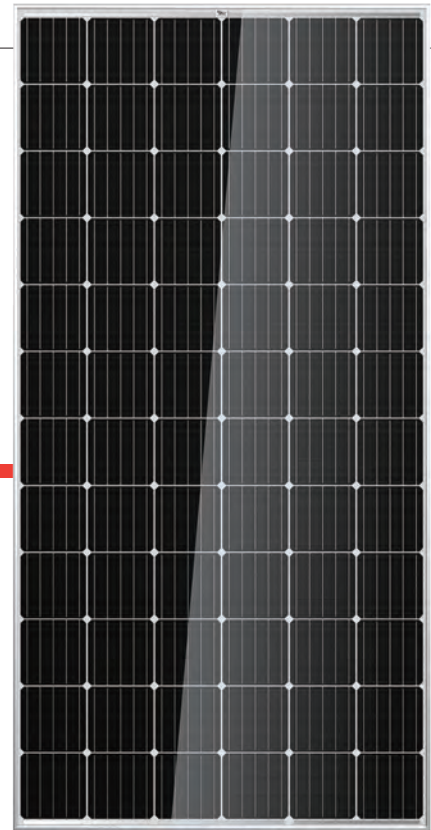


THE

TALLMAX^M plus⁺

FRAMED 72-CELL MODULE (1500V)



72 CELL MONOCRYSTALLINE MODULE

340-380W POWER OUTPUT RANGE

19.5% MAXIMUM EFFICIENCY

0~+5W POSITIVE POWER TOLERANCE

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

ISO 14064: Greenhouse gases Emissions Verification

OHSAS 18001: Occupation Health and Safety Management System



Ideal for large scale installations

- Reduce BOS cost by connecting more modules in a string
- 1500V UL/1500V IEC certified



Maximize limited space with top-end efficiency

- Up to 193 W/m² power density
- Low thermal coefficients for greater energy production at high operating temperatures



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

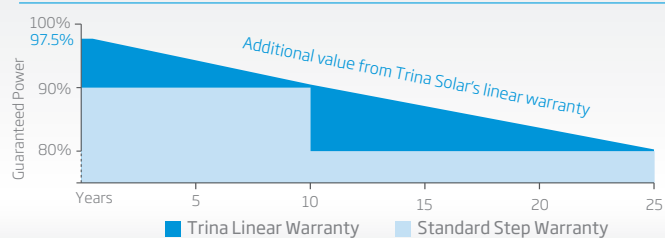


Certified to withstand the most challenging environmental conditions

- 2400 Pa negative load
- 5400 Pa positive load

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty · 25 Year Linear Power Warranty

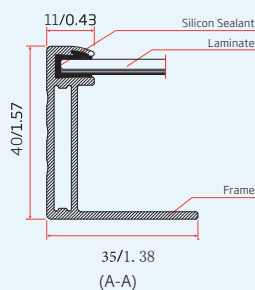
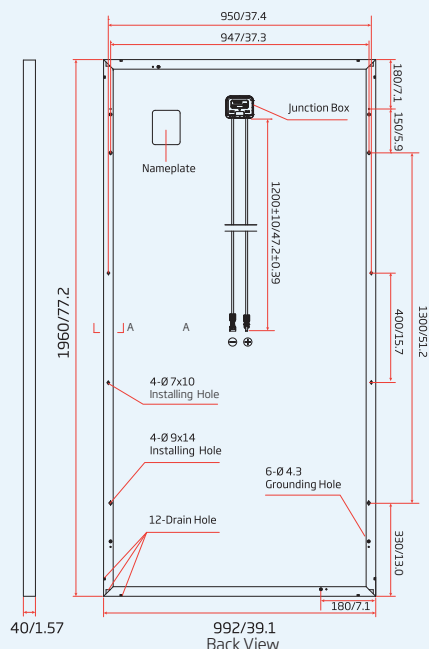


PRODUCTS

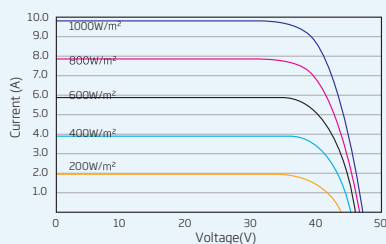
POWER RANGE

TSM-DE14A(II) STD MONO 340 - 365W
TSM-DE14A(II) PERC MONO 370 - 380W

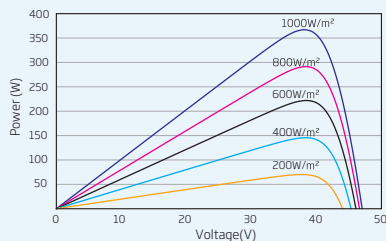
DIMENSIONS OF PV MODULE(mm/inches)



I-V CURVES OF PV MODULE(365W)



P-V CURVES OF PV MODULE(365W)



ELECTRICAL DATA (STC)

Peak Power Watts-P _{MAX} (Wp)*	340	345	350	355	360	365	370	375	380
Power Output Tolerance-P _{MAX} (W)	0 ~ +5								
Maximum Power Voltage-V _{MPP} (V)	38.2	38.5	38.7	38.8	39.0	39.3	39.7	40.0	40.3
Maximum Power Current-I _{MPP} (A)	8.90	8.96	9.04	9.14	9.24	9.30	9.33	9.37	9.43
Open Circuit Voltage-V _{OC} (V)	46.2	46.7	47.0	47.4	47.7	48.0	48.3	48.5	48.8
Short Circuit Current-I _{SC} (A)	9.50	9.55	9.60	9.65	9.70	9.77	9.83	9.88	9.94
Module Efficiency η _m (%)	17.5	17.7	18.0	18.3	18.5	18.8	19.0	19.3	19.5

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

ELECTRICAL DATA (NOCT)

Maximum Power-P _{MAX} (Wp)	253	257	261	264	268	272	276	279	283
Maximum Power Voltage-V _{MPP} (V)	35.4	35.7	35.9	36.0	36.2	36.4	36.8	37.1	37.2
Maximum Power Current-I _{MPP} (A)	7.15	7.20	7.26	7.34	7.42	7.47	7.50	7.53	7.60
Open Circuit Voltage-V _{OC} (V)	42.9	43.4	43.7	44.1	44.3	44.6	44.9	45.1	45.3
Short Circuit Current-I _{SC} (A)	7.67	7.71	7.75	7.79	7.83	7.89	7.94	7.98	8.03

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

MECHANICAL DATA

Solar Cells	Monocrystalline 156.75 × 156.75 mm (6 inches)
Cell Orientation Module	72 cells (6 × 12)
Dimensions	1960 × 992 × 40 mm (77.2 × 39.1 × 1.57 inches)
Weight	22.5 kg (49.6 lb)
Glass	3.2 mm (0.13 inches) , High Transmission, AR Coated Tempered Glass
Encapsulant Material	EVA (White/Transparent)
Backsheet	White
Frame	Silver Anodized Aluminium Alloy
J-Box	IP 67 or IP 68 rated
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²) 1200 mm (47.2 inches)
Connector	Trina TS4
Fire Type	Type 1 or Type 2

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	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) 1500V DC (UL)
Max Series Fuse Rating	15A (Power ≤ 350W) 20A (Power ≥ 355W)

(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: 27 pieces
Modules per 40' container: 648 pieces

SG125HV

String Inverter for 1500 Vdc System



High Yield

- Patent five-level topology, max. efficiency 98.9 %, European efficiency 98.7 %, CEC efficiency 98.5 %
- Full power operation without derating at 50 °C



Easy O&M

- Virtual central solution, easy for O&M
- Compact design and light weight for easy installation



Saved Investment

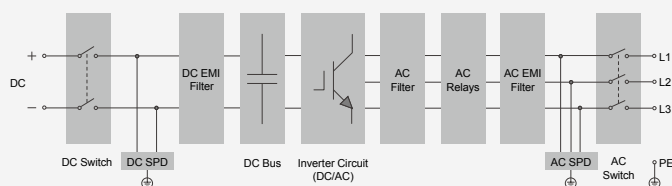
- DC 1500 V, AC 600 V, low system initial investment
- 1 to 5 MW power block design for lower MV transformer and labor cost
- Max. DC/AC ratio up to 1.5



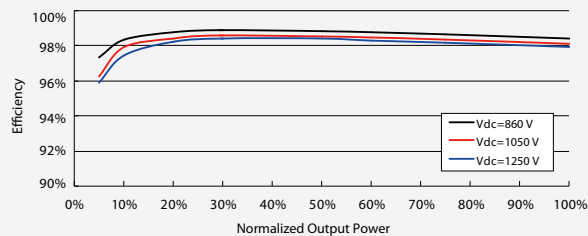
Grid Support

- Compliance with both IEC and UL safety, EMC and grid support regulations
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

Circuit Diagram



Efficiency Curve



Input (DC)**SG125HV**

Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	860 V / 920 V
Nominal input voltage	1050 V
MPP voltage range	860 – 1450 V
MPP voltage range for nominal power	860 – 1250 V
No. of independent MPP inputs	1
No. of DC inputs	1
Max. PV input current	148 A
Max. DC short-circuit current	240 A

Output (AC)

AC output power	125000 VA @ 50 °C
Max. AC output current	120 A
Nominal AC voltage	3 / PE, 600 V
AC voltage range	480 – 690 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I _n
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3

Efficiency

Max. efficiency / Euro. efficiency / CEC efficiency	98.9 % / 98.7 % / 98.5 %
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Protection

DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch / AC switch	Yes / Yes
Overvoltage protection	DC Type II / AC Type II

General Data

Dimensions (W*H*D)	670*902*296 mm 26.4"*35.5"*11.7"
Weight	76 kg 167.5 lb
Isolation method	Transformerless
Degree of protection	IP 65 NEMA 4X
Night power consumption	< 4 W
Operating ambient temperature range	-25 to 60 °C (> 50 °C derating) -13 to 140 °F (> 122 °F derating)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) 13123 ft (> 9843 ft derating)
Display / Communication	LED, Bluetooth+APP / RS485
DC connection type	OT or DT terminal (Max. 185 mm ² 350 Kcmil)
AC connection type	OT or DT terminal (Max. 185 mm ² 350 Kcmil)
Compliance	CE, IEC 62109-1/-2, IEC 61000-6-2/-4, IEC 61727, IEC 62116, IEC 61000-3-11/-12, UL 1741, UL 1741 SA, IEEE 1547, IEEE 1547.1, CSA C22.2 107.1-01 and California Rule 21
Grid support	LVRT, HVRT, active & reactive power control and power ramp rate control
Type designation	SG125HV-10

