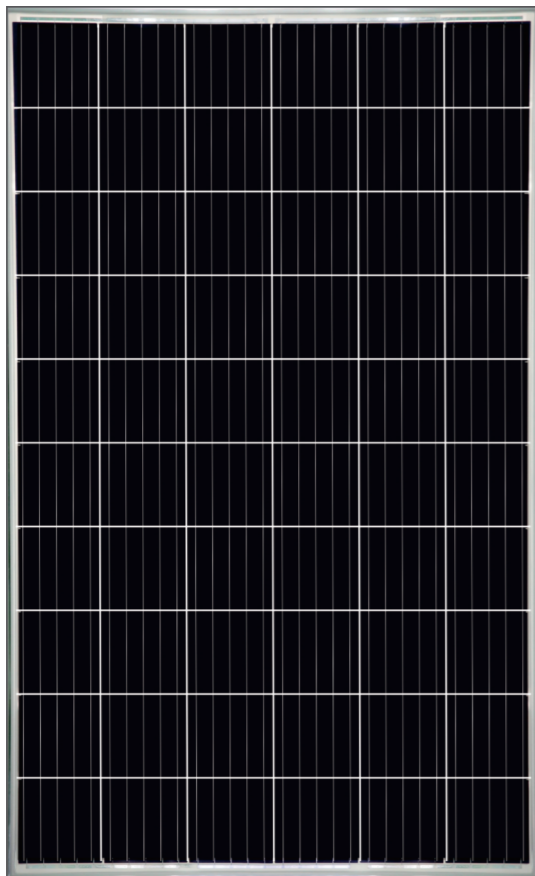


BLACK SILICON

POLYCRSTALLINE

SOLAR MODULE TW275PWH-60



Advantages



Higher module power

Special surface treatment of black silicon solar cell effectively eliminates reflection of the solar cell, and increases utilization rate of incident light, achieving high efficiency of both solar cell and module, and low module costs.



1,500V high-voltage system

Be capable for connecting more modules in series, and reduce number of power station cables and combiner boxes; increase space utilization and cut system cost.



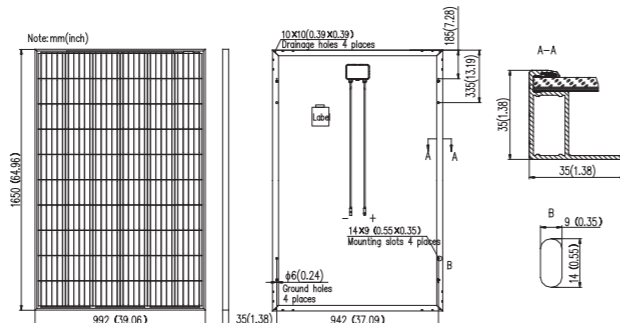
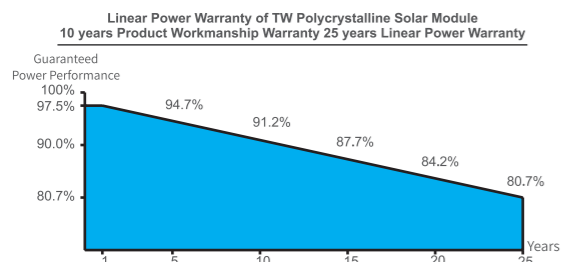
Strict quality control

Advanced full-automatic production line, 100% EL during process and ex-factory; strict quality inspection control, 0~+5% positive power output; optimized current grading; all these ensure generating performance matching of system-end modules and high generation output of modules



Longer service life

Weather-resistant package material, anti-PID solar cell, water-proof IP67 junction box and special cables for solar PV; all these functions protect modules against temperature difference between day and night, seasonal change and abnormal wet and cold weather, and provide longer service life.



MECHANICAL CHARACTERISTICS

Dimensions	1650×992×35 mm (L×W×H)
Weight	18.2 kg
Front Glass	White toughened safety glass, 3.2mm
Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Cells	60pcs 156.75×156.75mm Polycrystalline solar 5 busbars black silicon solar cells
Backsheet	Composite film
Frame	Anodized aluminum profile
Junction Box	Rated current:13A, IP67, TUV&UL
Cable	Length 900mm, 1×4mm ²
Connector	Compatible with MC4

TEMPERATURE CHARACTERISTICS

NOCT	45°C(±2°C)
Temperature Coefficient of Voc	-0.31%/°C
Temperature Coefficient of Isc	0.043%/°C
Temperature Coefficient of Pm	-0.40%/°C

MAXIMUM RATINGS

Maximum System Voltage [V]	DC 1000(IEC) DC1000(UL)
Series Fuse Rating [A]	20
Maximum Surface Load Capacity [Pa]	5,400
Temperature Range [°C]	- 40 to + 85
Withstanding Hail	Maximum diameter of 45 mm with impact speed of 30.7 m·s ⁻¹

ELECTRICAL CHARACTERISTICS AT STANDARD TEST CONDITIONS(STC)

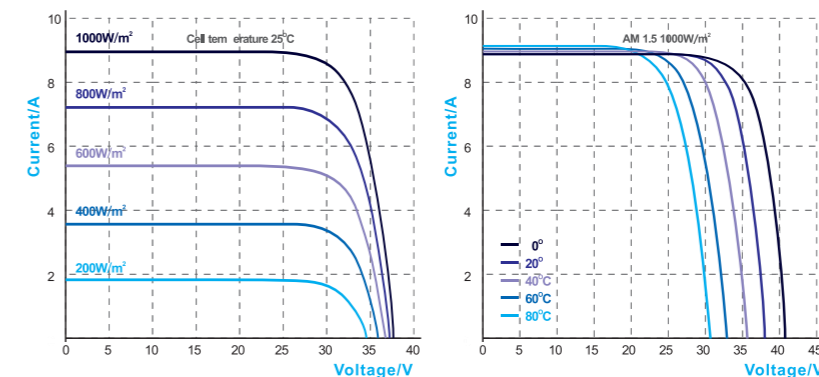
Module Type: TW 275 MF-60	295	290	285	280	275	270	265	260
Maximum Power-Pm [W]	295	290	285	280	275	270	265	260
Open Circuit Voltage-Voc [V]	38.7	38.6	38.5	38.4	38.3	38.2	38.1	38.0
Short Circuit Current-Isc [A]	9.52	9.44	9.36	9.29	9.22	9.15	9.08	9.01
Maximum Power Voltage-Vm [V]	32.2	32.0	31.8	31.6	31.4	31.2	31.0	30.8
Maximum Power Current-Im [A]	9.16	9.06	8.96	8.86	8.76	8.65	8.55	8.44
Module Efficiency-η [%]	18.0	17.7	17.4	17.1	16.8	16.5	16.2	15.9

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power-Pm [W]	217	213	210	206	202	199	195	191
Open Circuit Voltage-Voc [V]	35.3	35.2	35.1	35.0	34.9	34.8	34.7	34.6
Short Circuit Current-Isc [A]	7.68	7.62	7.55	7.50	7.44	7.38	7.33	7.27
Maximum Power Voltage-Vm [V]	29.4	29.2	29.0	28.8	28.6	28.5	28.3	28.1
Maximum Power Current-Im [A]	7.39	7.31	7.23	7.15	7.07	6.98	6.90	6.81

Note: 1. Standard Test Conditions (STC): irradiance 1000 W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Normal Operating Cell Temperature (NOCT): Irradiance 800W/ m²; wind speed 1m/s ,cell temperature 45°C; ambient temperature 20°C.
3. Tolerance of Pm: 0~+5%, Measuring uncertainty of power: ±3%. Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: ±5%.

IV CURVE



OTHER CHARACTERISTICS

Packaging	30 pcs/box; 840 pcs/40' container; 1440 pcs/flat car
Warranty	10 year Product Workmanship Warranty 25 year Linear Power Warranty

* Declaration: With the technical progress and product updates, there exists a deviation between the technical parameter of the TW Solar's late products and the technical parameter in this specification. The TW Solar reserves the right to adjust the technical parameter at any time without notifying the customers. TW Solar has the ultimate power of interpretation to this technical specification.