

TPG-P5T Series

160 – 180 WATT

HIGH QUALITY POLY-CRYSTALLINE PV MODULES

TRANS-PACIFIC ENERGY GROUP

Using automated production lines, top of the line solar cells and materials complying to highest industry standards, Trans-Pacific Energy Group provides a complete set of poly and mono-crystalline PV modules ranging from **20W to 275W**.

Trans-Pacific Energy Group offers panels for use in small off-grid systems to the largest on-grid solar farms. Panels are tested and qualified for the severest weather conditions.



FEATURES	BENEFITS
14.37% - 16.12% solar cell efficiency 12.31% - 13.85% module efficiency	Generate more energy per square meter
Protective, Bypass diodes	Avoids effect of partial shading
Factory equipped weatherproof junction box Waterproof(UL94, V-O) connector Provides nominal 24 DC output	Flawless operation in wet weather and marine applications Perfect for GRID applications
White tempered glass EVA resin Weather proof film Anodized aluminum frame	Resilient to harsh weather conditions
Highest standards in manufacturing and design quality Cleanroom-like production line ISO9001:2000	Optimal panel performance Long term product performance

STANDARD QUALIFICATIONS

IEC61215 – Certified by TUV
CE

INVESTMENT PROTECTION

5 years product workmanship guarantee
12 years product warranty 90% power output
25 years product warranty 80% power output



QUALITY ASSURANCE

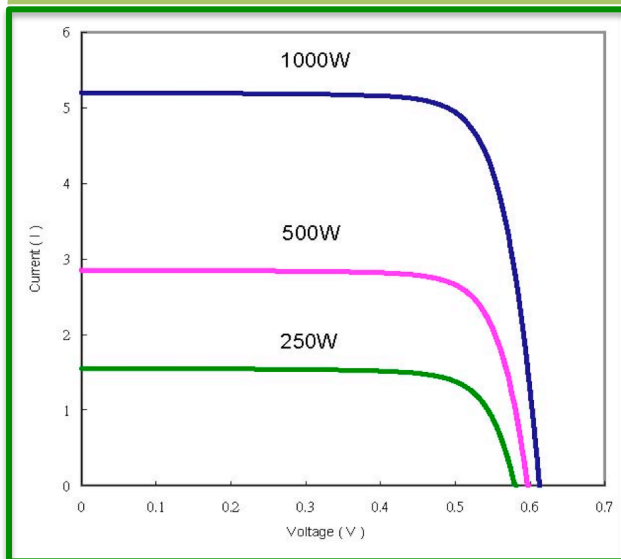
- ISO9001:2000
- Electrical insulation test
- Outdoor exposure test
- Hot spot endurance test
- UV exposure IEC61345
- Thermal cycling
- Humidity freeze
- Damp heat test
- Robustness of termination test
- Wet leakage current test
- Mechanical load test
- Hail impact test
- Bypass diode thermal test

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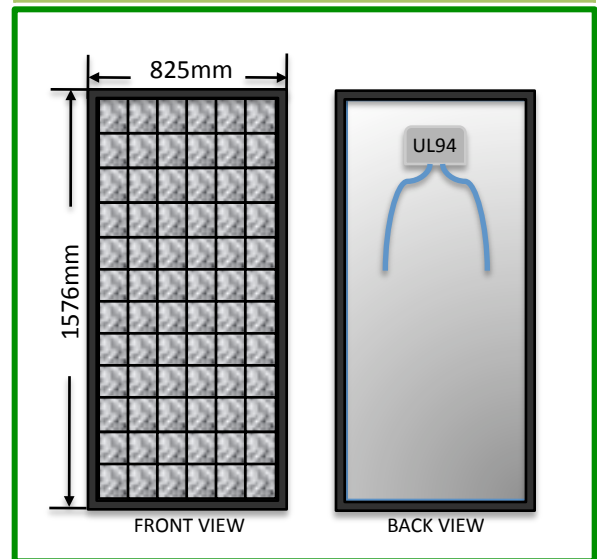
Electrical Characteristics	P5T160	P5T165	P5T170	P5T175	P5T180
Maximum Power [W]	164.9	169.9	174.9	179.9	184.9
Tolerance	± 5%	± 5%	± 5%	± 5%	± 5%
Open circuit Voltage [V]	42.91	43.49	43.56	43.63	43.78
Short circuit Current [A]	4.93	5.03	5.07	5.15	5.23
Maximum Power Voltage [V]	35.50	35.93	36.14	36.43	36.86
Maximum Power Current [A]	4.51	4.59	4.70	4.80	4.88
Module Efficiency [%]	12.31	12.69	13.08	13.46	13.85
Solar Cell Efficiency [%]	14.37	14.87	15.12	15.62	16.12
Series Fuse Rating [A]	10	10	10	10	10
Terminal Box	IP65	IP65	IP65	IP65	IP65
Maximum System Voltage [V]	DC1000	DC1000	DC1000	DC1000	DC1000
Operating Temperature [C]	-40 to 85	-40 to 85	-40 to 85	-40 to 85	-40 to 85

I V Curve

Current-Voltage characteristics at various irradiance levels



Frame Diagram



Temperature Coefficients

Short circuit current (mA/C)	+3.9
Open circuit voltage (V/C)	-0.095
Maximum power (%/C)	-0.4

Mechanical Characteristics

Frame	Aluminum
Dimension (L x W x D)	62.05" x 32.48" x 1.97" / 1576mm x 825mm x 50mm
Weight	17.0 kg/pc
Packing	10pcs/carton
Loading/container	280pcs/20ft; 560/40ft