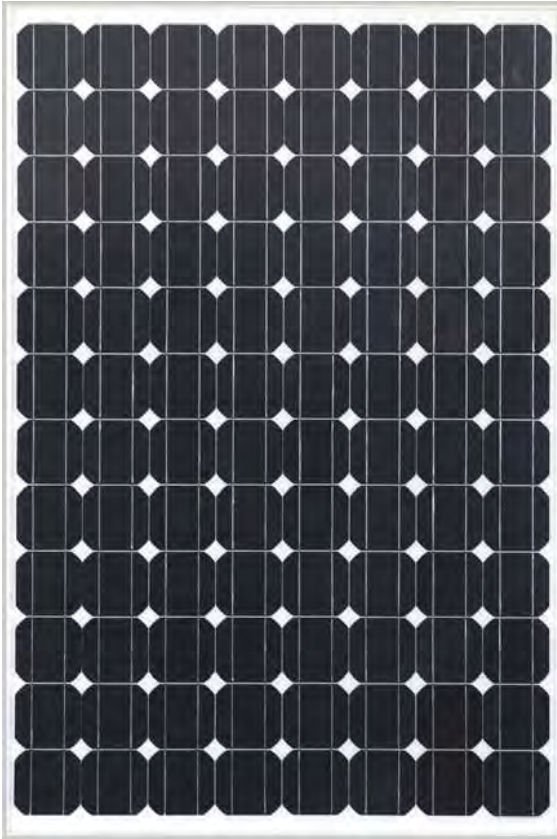




TES Group of companies

TESZeus PV-T 250W Monocrystalline



TESZEUS represents a new generation of Photovoltaic-Thermal Hybrid panels (PV-T).

TESZEUS is a combination of Photovoltaic cells combined with a thermal collector, resulting in a unique panel which converts solar radiation into electricity and thermal energy at the same time.

This combination works in the following unique ways:

1. To provide domestic hot water for heating and sanitary use;
2. Cools down the photovoltaic cells thus optimizing electrical performance with increased annual electrical yield and increased lifespan of solar cells.

Benefits

- ☐ Significant increase in electrical cell output (up to 55%);
- ☐ Hot water production;
- ☐ Use for sanitary water heating or swimming pool heating;
- ☐ Floor heating for civil and industrial applications;
- ☐ Increased photovoltaic module lifespan;
- ☐ Shorter R.O.I. due to increased electrical production and double energy generation;

Applications

- ☐ On-grid residential roof-tops
- ☐ On-grid commercial/industrial roof-tops
- ☐ Solar power stations
- ☐ Other on-grid applications

Temperature Coefficients

Temperature Coefficients of Isc(%)°C	+0.04
Temperature Coefficients of Voc(%)°C	-0.38
Temperature Coefficients of Pm(%)°C	-0.47
Temperature Coefficients of Im(%)°C	+0.04
Temperature Coefficients of Vm(%)°C	-0.38

Electrical & Thermal Data

Maximum Power(W)	250W
Optimum Power Voltage(Vmp)	50.78V
Optimum Operating Current(Imp)	4.92A
Open Circuit Voltage(Voc)	59.90V
Short Circuit Current(Isc)	5.26A
Cell Efficiency (%)	17.66%
Module Efficiency (%)	14.88%
Tolerance Wattage(e.g. +/-3%)	±3%
NOCT	47°C +/-2°C
Thermal Efficiency	$\eta_0 = 0.52$





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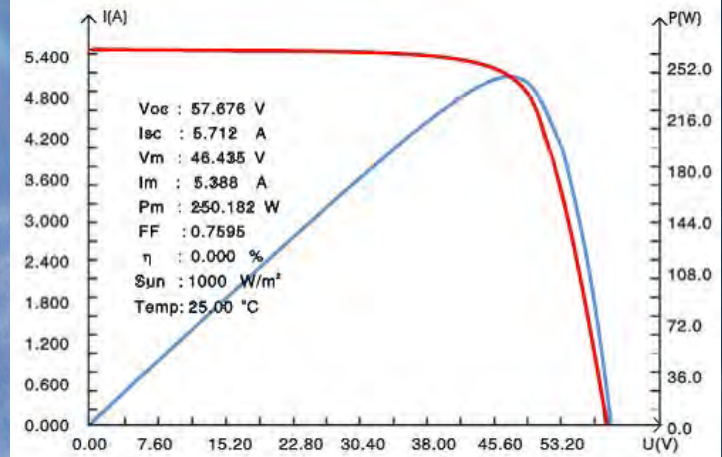
TESZeus PV-T 250W Monocrystalline

TESZEUS

Components & Mechanical Data

Solar Cell	125*125 Mono
Number of Cell(pcs)	8*12
Size of Module(mm)	1600*1056*36.5
Front Glass Thickness(mm)	3.2
Surface Maximum Load Capacity	2400Pa
Allowable Hail Load	23m/s ,7.53g
Weight Per Piece(KG)	27.5
Junction Box Type	Pass the TUV Certificate
Bypass Diode Rating(A)	12
Cable & Connector Type	Pass the TUV Certificate
Frame(Material Corners,etc.)	40#
Backing (Brand Type)	TPT
Temperature Range	-40°C to +85°C
FF (%)	70-76%
Standard Test Conditions	AM1.5 1000W/m ² 25 +/-2°C

I-V Curves



Warranty & Certifications

Warranty	25 year limited power warranty
	5 year limited product warranty
Certifications	IEC 61215, IEC 61730, ETL-UL1703, EN12975

Engineering Drawings

