

ULTRA Triple Boosting Innovative Revolution Technology is Here

Ultra Hybrid **550Wp** Bifacial Photo-Voltaic & **1,280Wp** Thermal Production system

The most efficient Semi Transparent **HYBRID BPVTPT** in the market

- ✓ **Up to 45% and more Energy production of 4.8KW 1m²****
Vs Regular Photo-Voltaic Panel (throughout yearly average **hottest day hours**).
- ✓ **At the same time & space simultaneously producing Elec & Thermal Energy.**
- ✓ **Up to +23% Improvement in Electric efficiency** through active **PV cells cooling**.
- ✓ **SMART HOT SPOT FREE** thus optimize panel performance increased annual electric yield.
- ✓ Higher Energy, represent the next generation of **Ultra Triple-Boosting Energy Module technology** of **BPVTPT****.
- ✓ **Triple Tempered Glass** advanced for complete surface heat **absorption**.
- ✓ Remains snow-free during winter due to a defrosting effect as result of constant closed differential water circulation and relies on flexible self-expansion coefficient.
- ✓ **Hybrid BPVTPT** systems, due to the increased efficiency and the possibility of cogeneration, Electrical and Thermal, significant savings-installation simple and more cost effective when compared to standard collector and dual separate PV and Thermal pipe units.
- ✓ An alternative to roof tiles/roofing, greenhouse and thermal rooftop insulation.
- ✓ Powerful and lightweight – only 39 Kg
- ✓ Reduced aging of PhotoVoltaic cells.
- ✓ Performance Guarantee; 8 years **94%** Linear Power output
30 years **86%**



The PGSolar Greenergy **ULTRA HYBRID BPVTPT (Bifacial PV partly Transparent Panel Thermal)** Designed of **Black Half-cut monocrystalline** modules are connected to closed loop water pump. Therefore, the system provides all of the required **sanitary hot water needs**, as well as additional **25%-30%** of all **Thermal Energy** which is needed for operation a domestic 3-sources of energy **HYBRID AC(el) & PV & Thermal SOLAR Air Conditions unit**.

General Specifications of Ultra Hybrid Half-Cut Black Mono-Crystalline Module (standard test condition STC)

<u>No hot spot temperature</u>	<u>Electrical</u>		
Dimensions	2128x1058x35 mm		
Double Tempered glass design	144 cells or more		
Module Efficiency	21%	Pmax	465 Wp
Incorporated additional Gain	25.5% +~85w	Pmax	550 Wp
Thermal hot water/air generation			1,280 Wp
Internal liquid capacity	3.8Liter		
Liquid/Air flow rate	280l/hour	Air	8 m ³ /h
Insulation & Junction electric box	IP68		
Number of connections (IN or EX ½")	4/8. Tubes DIA Ø 16/20 mm		

MORE ENERGY production within the **SAME PHYSICAL PLATFORM**

Electrical & Thermal Price:
0.18Euro/Watt*

*connection & supports not included

Photovoltaic panels Certified by TUV NORD CERT GmbH
STC; Irradiation 1,000W/m², panel temperature 25° C air mass = 1m/s

** Installed above a differential telescopic elliptical sun tracking mechanism (Tested at average 7.5 hours Day)

Price FOB Shanghai

P.o.b 198 zip 4410102 Kfar Saba Israel +972 54 7275551

www.pgsolar-geenergy.com

Petergreenerenergy@gmail.com No R 065847501

Patent 255843 PCT /IL2019/050627© 2018 All right reserved to Peter Graner