



## Solar Hot Water Heater Panels

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[www.seabirdsolar.com](http://www.seabirdsolar.com)

24 Hour Wholesale Line: 1 323 366 8777

Evacuated solar energy water heater tubes.



- High technology coating absorbs 98% of sun's energy
- Vacuum means that no heat can escape
- Cylindrical absorber of the tube tracks the sun across the sky.

## 170 litre All-Glass Heat Pipe Solar Water Heaters

- No circulation pump, electricity or controls required
- **Assemble yourself and use in 3 hours**
- Freeze proof, no water in tube
- Failure tolerant-no water leak if tube breaks
- Corrosive liquids no problem
- Flexible-large systems use units in series
- Optional automatic filler and controller-heater

Storage tank	170 L, stainless steel, ½ inch connections
Tube Type 1.5 m Ø 47 mm	One piece all-glass heat pipe Transmittance = 0.91
Number of tubes	27
Water tank (outer cover)	Aluminium/zinc coated steel sheet
Insulation	Polyurethane foam, thickness 45 mm
Frame	Profile Aluminium, 45 degree angle
Working pressure	Vented to atmosphere
Aperture area, m <sup>2</sup>	2.7
Absorber Coating	Selective, sputtered graded Al/N-Al, absorbency (AM1.5)=0.9, emittance=0.08 @ 80 C, Heat loss coefficient=0.80 W/m <sup>2</sup> K
Heat loss coefficient	9.5 W/m <sup>2</sup> K (entire collector)





## 1.3 m<sup>2</sup> U tube Solar Energy Water Heater Panel

- High efficiency, SRCC and Solar Keymark certified
- Modular system-easy handling.
- High pressure panel
- Most flexible to use panel
- Lies flat on roofs, balcony
- Failure tolerant-no water leak if tube breaks



Collector tubes	12 tubes, 1.5 meter, 47 mm diameter
U tube material	8 mm diameter Copper
Maximum Working Pressure	0.6 MPa=6 bar (about 6 atmospheres) tested to 9 bar
Area, m <sup>2</sup>	Gross 1.278 Absorber 0.858
Net Weight	30 kg
Reflector	Flat Plate Diffuse, Aluminium
Inlet and Outlet Piping, in	1/2" stainless steel
Stagnation Temperature	220 degrees C
Energy per year	525 kWh/m <sup>2</sup>



Balcony Mounted Solar Collector





## 3.2 m<sup>2</sup> Heat Pipe Solar Water Heater Panel

Highest pressure of any panel

Complete freeze protection

Excellent for drain back systems

Assemble on roof

Highest efficiency panel available

Stand for flat roofs

SRCC and Solar Keymark certified



TZ58-1800/20R	Metric Units (SI)	Archaic
Length/Width/Height	2020*1825*155 mm	6 ft 8 in*6ft*6 in
Weight	77 kg	170 lb
Gross Area	3.166 m <sup>2</sup>	34.08 ft <sup>2</sup>
Aperture Area	2 m <sup>2</sup>	21.52 ft <sup>2</sup>
Test Pressure	1103 kPa	160 psg
Pipe connection size	2.54 cm	1 inch
Tube size	58mm by 1800 mm	
Fluid Capacity	1.6 litre	0.4 gal

## Solar Circulation Pump, Photovoltaic Direct Drive

- Circulation pump runs when the sun shines
- Runs faster when more sun, more hot water
- No controller, no probes, no grid power needed
- Simple split solar water heater system.

8V~24V DC as solar PV panel output varies  
Max open flow rate: 20 litres/minute  
Directly powered by PV panel  
Brass head with 1/2" female NPT Inlet/Outlet  
Max system pressure: 10 Bar  
Max working temperature: 110°C (230° F)  
Minimum start-up power: less than 3 Watt  
Soft start at very low in-rush current  
Automatic overload protection  
Automatic temperature protection  
Durable permanent magnetic rotor  
Advanced magnetic drive technology,  
Long life brush less pump  
Heavy duty, can run 24 hours  
Low noise:  $\leq 45$ dB far from 1m distance



Small PV panel for pump beside solar water thermal panels.