



SUN EARTH

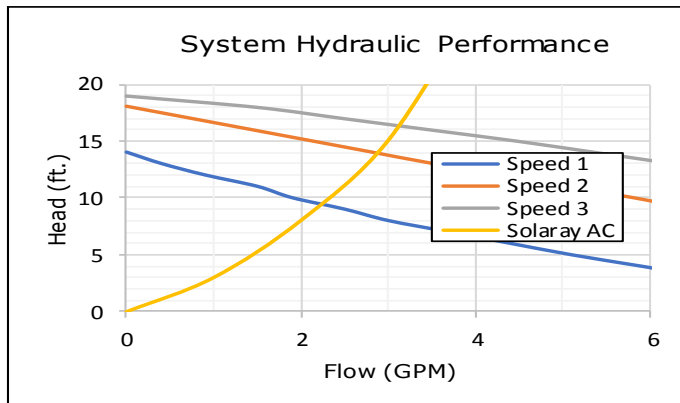
THE SOLARAY SERIES

HOT WATER STATION SPECIFICATION SHEET

Applications



Solar Water Heating



Technical Specifications:

System	
Maximum Collector Area ¹	96 ft ²
Maximum Building Height ²	30 ft
Potable Plumbing Diameter	3/4"
Solar Electrical	
Maximum Power Input	87 Watts
Input Voltage	120 V
Backup Heating Element Electrical (Optional)	
Maximum Power Input	4500 Watts
Input Voltage	240 V

¹ Collectors plumbed in parallel. ² Based on 20 feet of piping to the collectors.

Materials

Tank:	Glass Lined Steel Vessel with 2" Non-CFC Foam Insulation
Heat Exchanger:	5/8" Nominal Copper Double Wall Tubing
Bypass Valves:	3/4" Nominal Forged Brass Threaded (LEAD Free) Chrome Plated Brass Ball
Expansion Tank:	16 Gauge Cold Rolled Steel 100% Butyl Water Chamber Polypropylene Lined
Relief Tubes:	Polypropylene 105,000 BTUH or Less Rating
Pump:	1/25 HP Cast Iron
Mixing Valve:	3/4" Nominal Bronze (LEAD Free) EPDM Seals Engineered Polymer Piston
Flex Lines:	Coated Stainless Steel Internal Dielectric Insulator

Models

Model Number	Description	Dimensions	Approx. Gross Weight
100004-7-80	SolaRay AC HWS 80 Gallon	68" x 34" x 24 1/2" (H,L,W)	228 lbs.
100004-7-120	SolaRay AC HWS 120 Gallon	70" x 34" x 24 1/2" (H,L,W)	386 lbs.

Due to SunEarth's policy of continuous product improvement, specifications are subject to change without notice.



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General:

The SunEarth SolaRay AC is a ready to install, pre-engineered hot water station (HWS) that is designed with seamless installation in mind. Factory assembled using top tier components and tested for hydraulic integrity. The SolaRay AC HWS contains all the components and safety devices necessary for SunEarth's high performing SolaRay AC indirect glycol system. Featuring an all copper, double walled heat exchanger, an adjustable three speed pump and manufactured by SunEarth, the SolaRay AC HWS is the installers obvious choice.

FEATURES AND COMPONENTS

① SOLAR STATION:

Contains an integrated, 3 speed pump, air separator and vent, flow meter with balancing valve, fill and purge valves as well as a pressure gauge and expansion tank connection. The solar station is protected by a 145 PSI pressure relief valve.

② HEAT EXCHANGE STORAGE TANK:

Glass lined and pressure tested, includes a copper double wall protected heat exchange coil beneath the tanks R-17 insulation and painted metal jacket. The heat exchange storage tank is protected by a 150 psi/210°F relief valve.

③ RELIEF VALVE DRAIN TUBES:

Constructed from High Temperature Polypropylene with a rating of 105kBtu/hr.

④ CONTROLLER:

Operates the pump through differential temperature algorithms, the Liquid Crystal Display (LCD) offers insight into the system operation and condition. The controller reports temperature readings from 3 distinct locations; (T1) collector, (T2) bottom of storage tank and (T3) top of storage tank.

⑤ THERMAL EXPANSION TANKS:

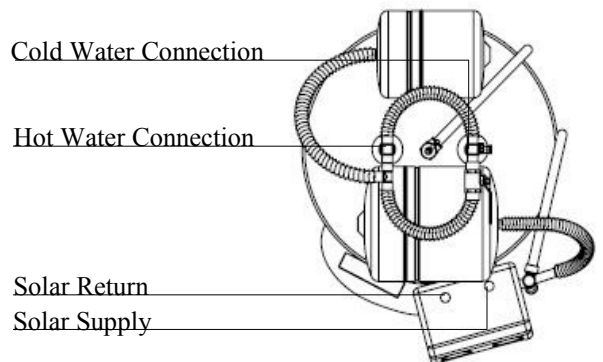
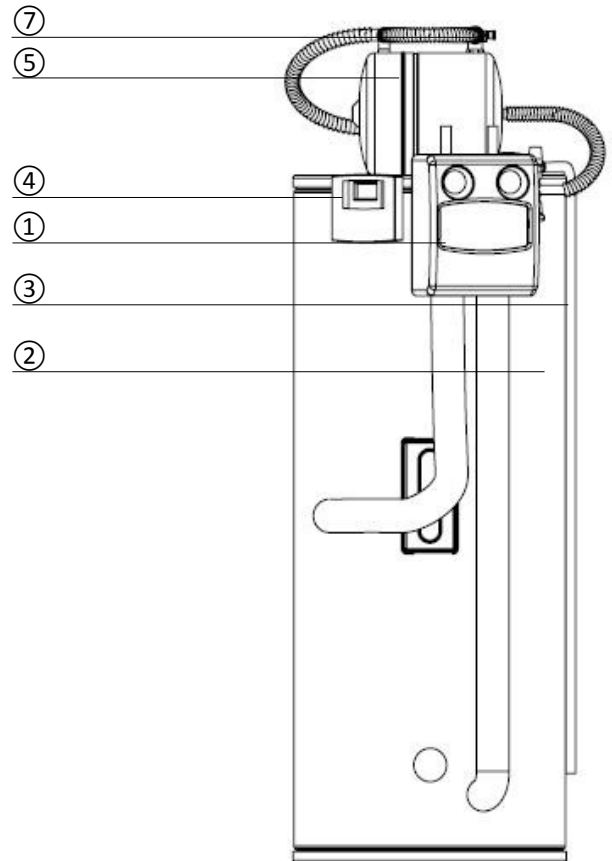
Ensures consistent pressure throughout the wide operational temperature range. The NSF Standard 61 rated potable tank has a total volume of 2.1 gallons and an operational limit of 150 psi/200°F. The solar expansion tank has a total volume of 4.8 gallons and an operational limit of 150psi/240°F.

⑥ MIXING VALVE:

Distributes controlled temperature water by incorporating a fast acting, high quality thermostatic element. Factory set to 120°F the mixing valve allows higher storage temperatures saving more energy and reducing the chances of Legionella bacterial growth in the water. Valve can be adjusted between 90°F and 130°F.

⑦ SERVICE BYPASS:

Comprised of lead-free ball valves the integrated service bypass allows the backup water heater to continue operating while service is performed on the solar system.



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