Applications

Solar Water Heating
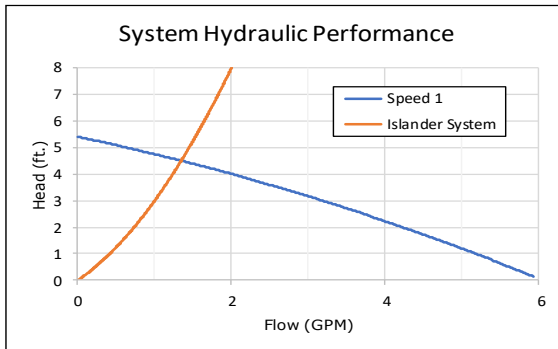
Technical Specifications:

System	
Maximum Collector Area[1]	96 ft^2
Maximum Building Height[2]	30 ft
Potable Plumbing Diameter	$^3/_4$"
Solar Electrical	
Maximum Power Input	25 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
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 Stainless Steel
Mixing Valve:	$^3/_4$" Nominal Bronze (LEAD Free) EPDM Seals Engineered Polymer Piston
Flex Lines:	Coated Stainless Steel Internal Dielectric Insulator

System Hydraulic Performance

- Speed 1
- Islander System

Models			
Model Number	**Description**	**Dimensions**	**Approx. Gross Weight**
100004-10-65	Islander HWS 65 Gallon	64" x 23" x 22" (HxLxW)	158 lbs.
100004-10-65-12*	Islander HWS 65 Gallon 12 YR Warranty	64" x 23" x 22" (HxLxW)	158 lbs.
100004-10-80	Islander HWS 80 Gallon	68" x 25" x 24" (HxLxW)	197 lbs.
100004-10-80-12*	Islander HWS 80 Gallon 12 YR Warranty	68" x 25" x 24" (HxLxW)	197 lbs.
100004-10-120	Islander HWS 120 Gallon	68" x 29" x 28" (HxLxW)	284 lbs.
100004-10-120-12*	Islander HWS 120 Gallon 12 YR Warranty	68" x 29" x 28" (HxLxW)	284 lbs.

* 12 year models utilize an Incoloy® heating element.

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

March 2020

General:

Innovative installation practices go hand in hand with innovative products and the Islander, SunEarth's Islander series addition to its hot water station lineup is nothing short of innovative. The Islander provides performance, longevity, and ease of installation that's guaranteed to satisfy the professional installer.

FEATURES AND COMPONENTS

① **PUMP:**
Wet-rotor type whereas the pump and motor form an integral unit without shaft seals. Utilizes a stainless-steel volute with integrated check valve ideal for direct solar heating systems.

② **STORAGE TANK WITH BACKUP HEATING ELEMENT:**
Glass lined and pressure rated the tank uses R-17 insulation and painted metal jacket. Includes a 4500-Watt heating element as a back-up for confidence in hot water availability. The storage tank is protected by a 150 psi/210°F relief valve and Magnesium sacrificial anode.

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.
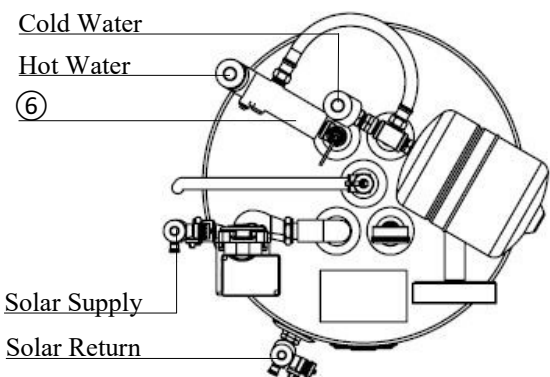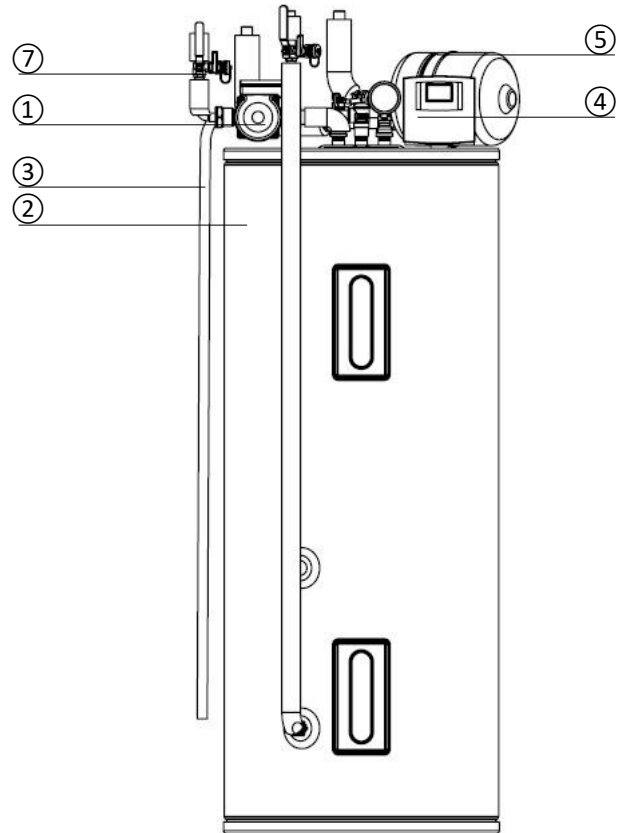
⑤ **THERMAL EXPANSION TANK:**
Ensures consistent pressure throughout the wide operational temperature range. The NSF Standard 61 rated potable tank has a total volume of 4.8 gallons and an operational limit of 80 psi/120°F.

⑥ **MIXING VALVE:**
Distributes controlled temperature water by incorporating a fast acting, ASSE 1017 & 1070 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 86°F and 120°F.

⑦ **SERVICE VALVES:**
Comprised of lead free ball valves with integrated hose drain that eliminate 3 leak paths, service valves allow for trouble-free flushing, draining and filling of the solar loop.

Cold Water
Hot Water
Solar Supply
Solar Return