



# SUN EARTH

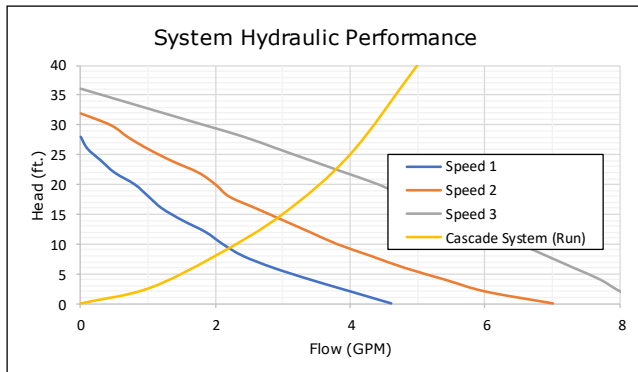
## THE DRAINPACK SERIES

HOT WATER STATION SPECIFICATION SHEET

### Applications



Solar Water Heating



Note: Pump head during fill condition is not depicted.

### Technical Specifications:

System	
Maximum Collector Area <sup>1</sup>	96 ft <sup>2</sup>
Maximum Building Height <sup>2</sup>	20 ft
Potable Plumbing Diameter	3/4"
Solar Electrical	
Maximum Power Input	150 Watts
Input Voltage	120 V
Backup Heating Element Electrical (Optional)	
Maximum Power Input	4500 Watts
Input Voltage	240 V

<sup>1</sup> Collectors plumbed in parallel. <sup>2</sup> 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
Drainback Reservoir:	Brazed Copper with NBR/PVC Based Elastomeric 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:	1/12 HP Stainless Steel
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	DrainBack Tank Capacity
100004-8-80	DrainPack HWS 80 Gallon	68" x 29" x 24 1/2" (H,L,W)	273 lbs.	6.0 Gallon
100004-11-120	DrainPack HWS 120 Gallon	68" x 32 1/2" x 28 1/2" (H,L,W)	440 lbs.	7.2 Gallon

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



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### General

The Drainpack Hot Water Station (HWS) was specifically designed and engineered with the professional installer in mind. The HWS is factory assembled using top tier components and is tested for hydraulic integrity to ensure a smooth installation. The Drainpack HWS pairs perfectly with SunEarth's high performing Cascade drainback system and includes all necessary components while eliminating dozens of intermediate connections.

### FEATURES AND COMPONENTS

#### ① DrainPack Reservoir:

The HWS incorporated an all copper 6 gallon DrainBack reservoir for 80 gallon model and 7.2 gallon DrainBack reservoir for the 120 gallon. Including a 75 psi pressure relief valve and integrated sight tube for simple system commissioning and maintenance.

#### ② Pump:

Double-insulated magwire to protect the motor windings against condensation that may occur in a solar application. Multiple speed settings with stainless steel impeller and volute. Includes a ferritic rotor can to maximize motor efficiency.

#### ③ Heat Exchange Storage Tank:

Glass lined and pressure rated 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.

#### ④ Relief Valve Drain Tubes:

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

#### ⑤ 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.

#### ⑥ Thermal Expansion Tanks:

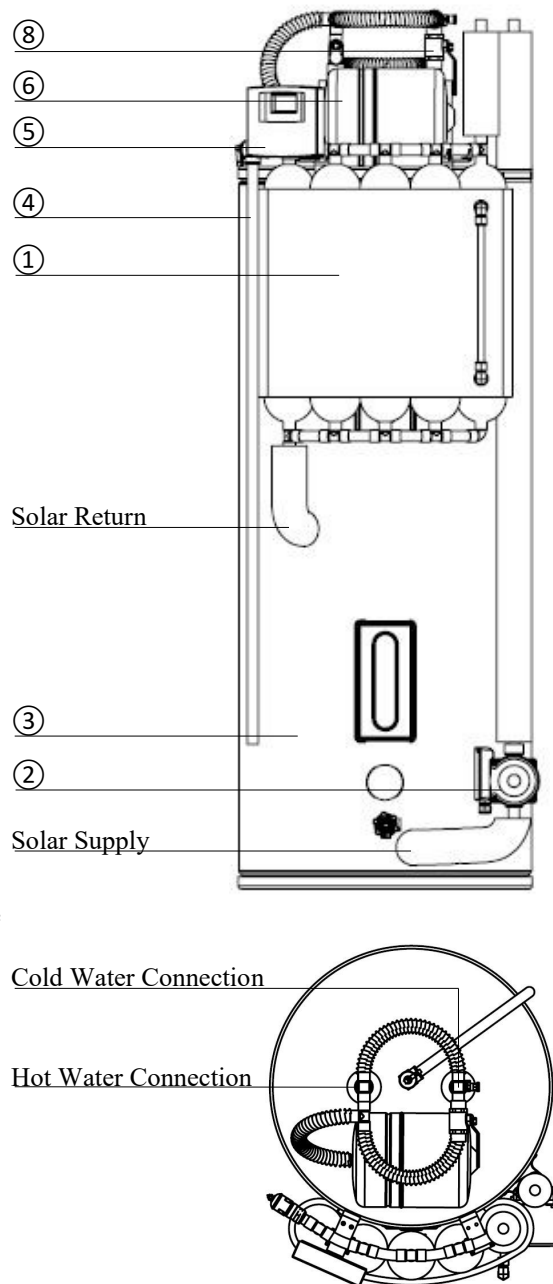
Ensures consistent pressure throughout the wide operational temperature range. The NSF Standard 61 rated potable tank has a total volume of 2.1 gallons and an operational limit of 150 psi/200°F.

#### ⑦ 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.

#### ⑧ 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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