**Smart Solar™** is the smart, energy efficient way to make your hot water!

High Performance Solar Water Heating Appliance!

**How It Works**

- **Flexible Line-Set**
  - Heat transfer loop, supply and return with easy to install push-fitings
- **Solar Storage Tank**
- **Energy Pack**
  - Digital Temperature Controller And Monitor
  - High-Efficiency Brazed Plate Heat Exchanger
  - Patented Anti-Fouling Protection
- **Solar Collectors (1 to 4 Collectors)**
  - High-Performance Selective Coating
  - Absorption 94% ≤ 2%
  - Emissivity 9% ≥ 2%
  - Freeze Protection
  - Patented Overheating

**Imagine!**

- Save money on your energy bill
- A reliable, year-round appliance
- Fast installation by trained professionals

The collectors resemble skylights and can be roof-, wall- or rack-mounted.

Overheat-protected collectors feature a patented temperature-limiting mechanism that allows hot air to vent, preventing overheating on a hot summer day. The food-grade heat-transfer fluid provides freeze-protection, supporting Appliance operation and continued savings year-round.

The Appliance uses free solar energy to heat water. Solar-heated water is produced during sunny periods. If necessary, your existing water-heater heats the water during periods of low solar radiation and at night so you are never without hot water.

Patented anti-fouling protection prevents clogging of the heat exchanger and ensures optimal performance.

Harness the sun’s energy to heat your water—a clean, cost-effective solution!

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**Smart Solar™ from SYSTEM 2000**

**Smart Solar™** is one of North America’s leading solar thermal technology providers with proven, patented technology offering high-quality, reliable, cost-effective water-heating solutions to the United States market. Smart Solar™ Solar Water Heating Appliances supply energy for less than the cost of grid electricity. Choosing emission-free, solar energy is a positive step to a clean environment and to saving money!

**Sizing High Performance Appliance for Cool Climate (above 37° N**°**), Residential Application**

<table>
<thead>
<tr>
<th>Individuals in Home</th>
<th>Appliance Size</th>
<th>Solar Storage Tank for Cool Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2–3</td>
<td>1-collector</td>
<td>80 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>180–275 L</td>
</tr>
<tr>
<td>3–5</td>
<td>2-collector</td>
<td>80 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>275–365 L</td>
</tr>
<tr>
<td>5–7</td>
<td>3-collector</td>
<td>120 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>365–455 L</td>
</tr>
<tr>
<td>7–10</td>
<td>4-collector</td>
<td>120 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>455–546 L</td>
</tr>
</tbody>
</table>

For commercial applications, contact your distributor.

**Sizing High Performance Appliance for Warm Climate (below 37° N**°**), Residential Application**

<table>
<thead>
<tr>
<th>Individuals in Home</th>
<th>Appliance Size</th>
<th>Solar Storage Tank for Warm Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2–4</td>
<td>1-collector</td>
<td>80 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>245–300 L</td>
</tr>
<tr>
<td>5–7</td>
<td>2-collector</td>
<td>120 gal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>450 L</td>
</tr>
</tbody>
</table>

For commercial applications, contact your distributor.

**Energy Star Partner**

As an Energy Star® Partner, Energy Kinetics has determined that this product meets Energy Star® guidelines for energy efficiency.
Product Technical Specifications

Collector
- Two, 4" x 8" (2.9 m²) collectors, 3" (7.6 cm) deep, 110 lb (50 kg) each
- Patented Collector Temperature Control, US Patent #7,143,762 B2
- Frame & Flashing: Galvalume™ steel satin finish, neutral dark color
- Absorber: Copper tube on aluminum sheet absorptance 94% ± 2%, emittance 5% ± 2%
- Glazing: Low-iron, patterned, tempered glass with side edge guard

Energy Pack
- 33 lb (15 kg)
- Pump & Motor: 115 V/single phase/60 Hz, 6 W (1/125 HP) mechanical power output, 23 W power input, nominal 0.25 A motor, precision miniature gear pump
- Controller & Monitor: Differential setpoint-type controller, digital, programmable, communicates wirelessly with remote monitor
- Heat-Transfer Fluid: Solution of 50% Propylene-Glycol USP/EP by volume with distilled water, non-toxic, no additives
- Expansion Tank: Coated steel tank with internal bladder
- Heat Exchanger: High-efficiency, brazed-plate, stainless steel
- Patented Anti-Fouling Protection, US Patent #6,827,091

Mounting Hardware
- Roof-, rack- or wall-mounted, EnerWorks collectors have a proprietary bracket system that is flexible and safe

Solar Storage Tank
- High performance tank with minimal storage loss for peak efficiency and operation

Auxiliary Storage Tank
- Fully integrated with System 2000 – Smart Solar™ is an outstanding companion to the world's most efficient home heating system.
- New or existing tank in good repair with at least 5 years of product life remaining. Electric, natural gas, propane, oil source or a temperature-sensitive demand water-heater

Line-Set
- Heat-Transfer Lines: ¼" (9.5 mm) OD copper tube, refrigeration-grade, soft copper tubing
- Control Wire: 18-gauge solid core, 2-wire
- Insulation: Armadillo, Golf-O-Flex or equivalent insulation on transfer lines

Leaf-Guard (optional)
- Galvalume™ steel, satin finish, neutral dark color
- For applications where leaves or other debris could collect under collectors

SOLAR COLLECTORS
Two collectors shown. One-, three- and four-collector appliances also available.

ENERGY PACK
Front View (cover removed)

For more information, contact your Smart Solar™ / System 2000 dealer.