

**STIEBEL ELTRON**

**Simply the Best**

HARVEST THE POWER OF THE SUN!

The new  
SOL 27 Premium solar  
collector – the result of  
over 40 years of solar  
thermal engineering.



# SOL 27 Premium

FLAT PLATE SOLAR COLLECTOR

- » HIGHLY SELECTIVE COATING
- » LOW PROFILE AT 3" THICKNESS
- » LOW IRON TEMPERED SOLAR GLASS
- » ALUMINUM ABSORBER WITH COPPER FLUID TUBES
- » DURABLE CORROSION RESISTANT ALUMINUM FRAME
- » CUSTOM MOUNTING HARDWARE AVAILABLE
- » 10 YEAR WARRANTY



ISO 9001  
CERTIFIED

ISO 9806  
COMPLIANT



800.582.8423

[www.stiebel-eltron-usa.com](http://www.stiebel-eltron-usa.com)

# PROVEN TECHNOLOGY MEETS MODERN DESIGN

The SOL 27 Premium is ideal for:

- » Residential domestic hot water
- » Radiant in-floor space heating
- » Commercial water heating



The SOL 27 Premium's modern appearance seamlessly integrates with any architecture.

SOL 27 Premium W (wide)



SOL 27 Premium S (standard)



Versatile mounting rack kits make every installation easy!

# SIMPLE AND PROVEN EFFECTIVE: SOLAR THERMAL HEAT & HOT WATER

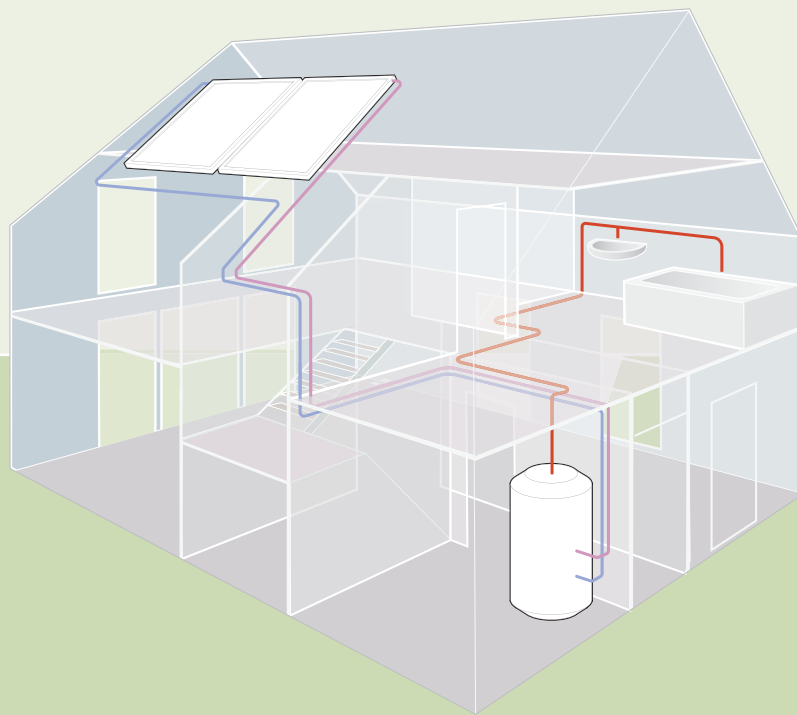
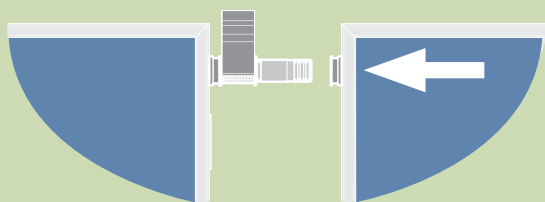
**STIEBEL ELTRON**



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Precision o-ring plumbing connections  
make installation quick and easy.  
No tools are required.



## Advantages include:

**Architecturally compatible** | The SOL 27 Premium is available in both wide (SOL 27 Premium W) and standard vertical (SOL 27 Premium S) configurations to accommodate a variety of architectural and engineering needs. Its low 3" profile makes it visually less obtrusive.

**A lasting and reliable investment in energy savings** | The SOL 27 Premium is a highly efficient solar thermal collector. The net absorber surface of over 25 square feet helps result in a maximum output of 31,300 btu/day per panel (SRCC clear day rating). The SOL 27 Premium also offers features such as a highly selective absorber coating, low-iron, tempered solar glazing, and very effective insulation around the absorber plate. The internal fluid tubes are copper and the absorber plate is aluminum.

**ENERGY STAR & other tax credits** | Please consult our website. The SOL 27 Premium is eligible for a 30% federal tax credit on the total cost of materials and labor, with no upper limit, as well as any state or local tax or rebate incentives that may apply. Federal tax credit is not available for systems that heat swimming pools or hot tubs. System must be installed in primary residence.

**A highly effective design** | Stiebel Eltron uses only the most durable materials. The SOL 27 Premium is the culmination of over 40 years of experience in solar thermal manufacturing. The SOL 27 Premium's 10 year warranty is a testament to the confidence we have in our products.

**Installation time is minimized** | The large panel size and the availability of a full complement of custom designed mounting accessories minimize installation costs. The plumbing connection from collector to collector does not require the use of tools.



This product certified by the  
Solar Rating and Certification  
Corporation  
c/o FSEC, 1673 Clearlake Road  
Cocoa, FL 32922  
(321) 638-1537  
www.solar-rating.org  
SRCC Document OG-100

Stiebel Eltron  
17 West Street  
West Hatfield, MA 01088  
Model No.: Sol 27 Premium W  
Gross Area 2.55 m<sup>2</sup> (27.4 ft<sup>2</sup>)  
Serial Number:

Clear Day  
Rating in  
Category C  
9.2 kWh/day  
31.3 KBtu/day

# SOL 27 PREMIUM: PROVEN TECHNOLOGY MEETS MODERN DESIGN

## Technical Data



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COMPLIANT

	SOL 27 Premium S	SOL 27 Premium W
Item no.	230016	230017
Type	Standard / Vertical	Wide / Horizontal
Height	85.5" / 2171 mm	46.1" / 1171 mm
Width	46.1" / 1171 mm	85.5" / 2171 mm
Depth	3.8" / 96 mm	3.8" / 96 mm
Weight	88.2 lbs / 40 kg	89.3 lbs / 40.5 kg
Casing material	Aluminum, corrosion resistant	Aluminum, corrosion resistant
Glass cover	ESG	ESG
Glass thickness	0.125" / 3.2 mm	0.125" / 3.2 mm
Thermal insulation thickness	2" / 50 mm	2" / 50 mm
Thermal insulation material	Mineral wool, low outgassing, WLG 040	Mineral wool, low outgassing, WLG 040
Collector connection	22 mm plug-in connector	22 mm plug-in connector
Max. idle temperature	<410°F / <210°C	<410°F / <210°C
Min. operating pressure	50.75 psi / 0.35 MPa	50.75 psi / 0.35 MPa
Max. permissible pressure	87 psi / 0.6 MPa	87 psi / 0.6 MPa
Pressure drop at 300 l/h	0.51 psi / 0.0035 MPa	0.51 psi / 0.0035 MPa
Test pressure	247 psi / 1.7 MPa	247 psi / 1.7 MPa
Test medium	Water (at the factory)	Water (at the factory)
Heat transfer medium	DowFrost	DowFrost
Fill level, heat transfer medium	0.4 gal / 1.5 l	0.48 gal / 1.83 l
Nominal volume flow	13 - 80 gal/hr / 50 - 300 l/hr	13-80 gal/hr / 50-300 l/hr
Angle of inclination	20° - 85°	20° - 85°
Total area	27.34 ft <sup>2</sup> / 2.54 m <sup>2</sup>	27.34 ft <sup>2</sup> / 2.54 m <sup>2</sup>
Aperture area	25.73 ft <sup>2</sup> / 2.39 m <sup>2</sup>	25.73 ft <sup>2</sup> / 2.39 m <sup>2</sup>
Absorber area	25.62 ft <sup>2</sup> / 2.38 m <sup>2</sup>	25.62 ft <sup>2</sup> / 2.38 m <sup>2</sup>
Absorber	Aluminum, highly selective coating, copper pipes, laser welded	Aluminum, highly selective coating, copper pipes, laser welded
Gasket	EPDM	EPDM
Conversion factor $\eta_0$	0.82	0.83
Effective heat transfer coefficient a1	3.46 W / (m <sup>2</sup> K)	3.46 W / (m <sup>2</sup> K)
Effective heat transfer coefficient a2	0.0153 W / (m <sup>2</sup> K)	0.0153 W / (m <sup>2</sup> K)
Absorption level $\alpha$	95%, $\pm 2\%$	95%, $\pm 2\%$
Emission level $\epsilon$	5%, $\pm 1\%$	5%, $\pm 1\%$
Collector yield	>525 / kWh/(m <sup>2</sup> p.a.)	>525 / kWh/(m <sup>2</sup> p.a.)

Performance subject to global solar radiation levels, installation conditions, heat transfer medium temperature and system characteristics.

## STIEBEL ELTRON FAMILY OF ENERGY SAVING PRODUCTS



Efficient tankless electric water heaters

### HOT WATER SOLUTIONS



DHC Point-of-use Tankless



Tempra® Whole House Tankless



Stiebel Eltron's plant in Holzminden, Germany.

Stiebel Eltron has been a world leader in the development of advanced water heating technology for over 80 years. Our pursuit of engineering excellence and high-quality manufacturing results in products fulfilling the highest expectations of performance and reliability. They are...**Simply the Best.**

### RENEWABLE ENERGY



Accelerator® 300 Heat Pump Water Heater



Highest ENERGY STAR rated air-source heat pump water heater

Distributed by:

## STIEBEL ELTRON

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West Hatfield, MA 01088

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