

## Non – Pressurized solar water heater with vacuum tubes

Non – Pressurized solar water heater is a cost effective system for residential hot water applications.

This system works on the thermosiphon principle and is designed to provide hot water without consuming expensive electricity.



GET HOT WATER  
IN THE MOST COOLEST WAY

### Product Dimensions



### Installation type

### Advantages and benefits

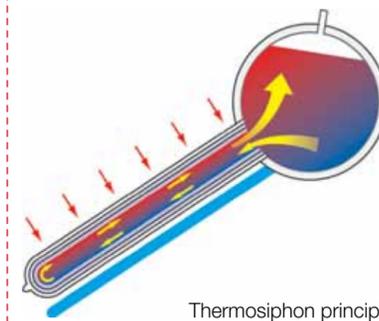
- Cost effective heating solution for hot water.
- Long operating life, low in maintenance cost.
- Customized solar water heating solutions.
- System designed for high energy yield & low heat loss
- High quality extra thick stainless steel inner tank

### Thermosiphon Principle

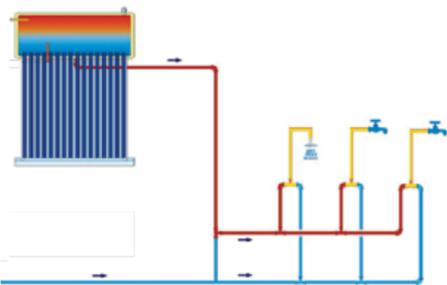
This type of solar water heater uses the sun to heat the water in the vacuum tubes. The solar collector absorb solar radiation, converts the sunlight to heat & transfers it to the water. The heated water naturally rises through the solar collector into the tank where the water at the base of the tank is forced out & descends to the bottom of the collector. This is called thermosiphon circulation . The circulation works only under sunlight

Whereas active solar water heating system rely on electric pumps, valves, and controllers to circulate the water through the vacuum tube collector, a thermosiphon system relies on gravity and tendency for water to naturally circulate as it is heated. Since complex mechanical liquid pumps are not necessary, this types of systems are reliable and cost-effective solution for hot water generation. Thermosiphon systems are mainly used in regions with high solar radition.

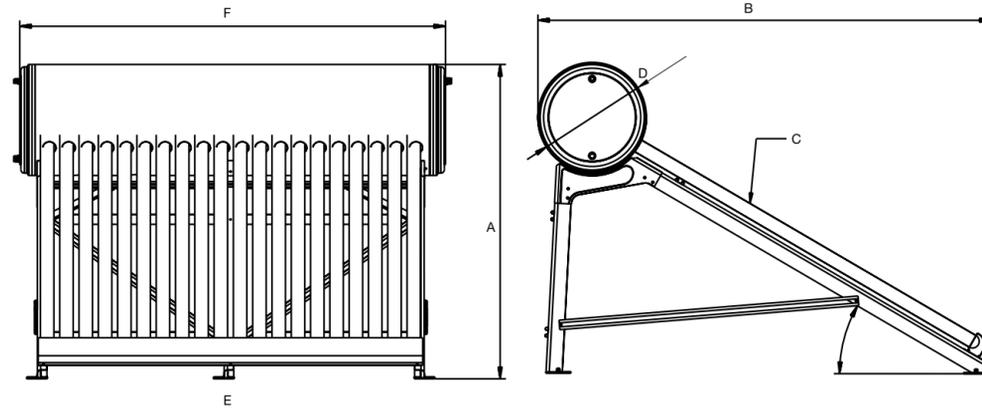
Optional: Digital controller and assistant tank model is also available.



Thermosiphon principle



Example of an easy installation



Model	A	B	C	D	E	F
Solero 100 L PD	1342 mm	1976 mm	1800 mm	472 mm	778 mm	1053 mm
Solero 150 L PD	1342 mm	1976 mm	1800 mm	472 mm	1193 mm	1468 mm
Solero 200 L PD	1342 mm	1976 mm	1800 mm	472 mm	1608 mm	1883 mm
Solero 300 L PD	1342 mm	1976 mm	1800 mm	472 mm	2023 mm	2713 mm

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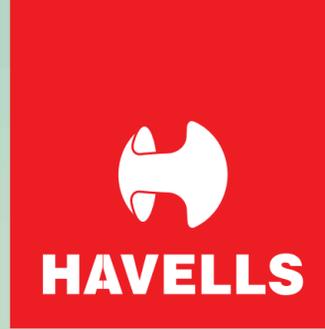
Dealer Stamp

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ZHGRC00011/DEC/19



# HEAT WATER WITHOUT WATT.

Heat water with the power of the sun with Havells Solero Water Heaters.





## About Havells

Havells India Limited is a leading Fast Moving Electrical Goods (FMEG) Company and a major power distribution equipment manufacturer with a strong global presence. Havells enjoys enviable market dominance across a wide spectrum of products, including Industrial & Domestic Circuit Protection Devices, Cables & Wires, Motors, Fans, Modular Switches, Home Appliances, Air Conditioners, Electric Water Heaters, Power Capacitors, CFL Lamps, Luminaires for Domestic, Commercial and Industrial Applications.

Today, Havells owns some of the most prestigious brands like Havells, Lloyd, Crabtree, Standard and Promptec. Its network constitutes of 6500 professionals, over 7650 dealers and 40 branches in the country. Our products are available in over 50 countries. The company has twelve state-of-the-art manufacturing plants in India located at Haridwar, Baddi, Sahibabad, Faridabad, Assam, Alwar and Neemrana, manufacturing globally acclaimed products, synonymous with excellence and precision in the electrical industry.

The company pioneered the concept of exclusive brand showroom in the electrical industry with 'Havells Galaxy'. Today over 500 Havells Galaxies across the country are helping customers, both domestic and commercial, to choose from a wide variety of products for different applications. Havells became the first FMEG Company to offer door step service via its initiative 'Havells Connect'. Thanks to the quality of products and quicker service, it has minimum customer complaints and highest customer satisfaction.

Today, Havells alongwith its brands, have earned the distinction of being the preferred choice of electrical products for discerning individuals and industrial consumers both in India and abroad. Havells offers same quality products for both Indian and International markets. It is committed to keep powering the world with its state-of-the-art innovations and energy-efficient solutions. Currently over 90% of its product offerings are energy efficient and manufactured in-house.

Social and environmental responsibility has been at the forefront of Havells Operating Philosophy and as a result the company consistently contributes to socially responsible activities. For instance, the company is providing mid-day meal in government schools in Alwar district, covering more than 58000 students per day. The group company, QRG Healthcare runs a 140 bed hospital in Faridabad. In the past, the company has generously contributed to the society during various national calamities like the Bihar Flood, Tsunami and Kargil National Relief Fund, etc.

The essence of Havells' success lies in the expertise of its fine team of professionals, strong relationships with associates and the ability to adapt quickly & efficiently, coupled with the vision to always think ahead.



Extra hot water  
without extra cost



High density CFC Free polyurethane foam (PUF) insulation for maximum energy efficiency



Rust resistant outer body



Heavy duty protective magnesium anode



Stainless steel inner tank of superior 304 grade



Non pressurized system



Water level & Temperature display



Evacuated tube collector



Strong & durable anodized aluminium stand

### Evacuated tube collector (ETC):

Evacuated glass tubes works on the thermos flask principle & consist of two concentric glass tubes and an evacuated gap to prevent heat loss. Highly effective absorbent coating on the inner glass tubes enables optimum energy yield.

### System Stand:

Anodized aluminium alloy designer stand especially created for Havells Solero is weather proof and does not corrode like MS / Steel stands. The aesthetic design enhances the system and makes your terrace look beautiful.

## An eco-friendly way to get hot water



Solar water heaters use natural sun light to heat water. This is the most effective way to generate hot water thereby saving costly power for our country and is also environment friendly. Installing solar water heater is simple and cost effective. The extra thick SS inner tank & high density PUF insulation makes owning the Havells Solero a superior choice ensuring years of trouble free hot water for you and your family. Havells making a difference.

Description	Technical Specifications of ETC based Solar water heating systems			
	100 L	150 L	200 L	300 L
Capacity (LPD)	100 L	150 L	200 L	300 L
Type	Non-pressurized solar water heater			
Material of inner tank	SS 304 grade stainless steel			
Material of outer tank	GI powder coated color steel			
Insulation of tank	High-density PUF insulation			
Circulation	Thermosiphon Type			
Material of Side cover	Galvanized steel			
Vacuum tube type	Type 3 target tube AL-N-AL/SS/CU coated			
Number of vacuum tube	10 N	15 N	20 N	30 N
Outer glass tube diameter	Ø 58 mm			
Inner glass tube diameter	Ø 47 mm			
Length of the Vacuum Tube	1800 mm			
Stand	Aluminium (Flat roof)			
Maximum operating pressure (MPa)	0.6 MPa	0.6 MPa	0.6 MPa	0.6 MPa
Structure of stand	Flat			
Electric heater backup (Optional)	1.5 kW	1.5 kW	1.5 kW	2.5 kW
Anode protection	Magnesium Anode Rod			