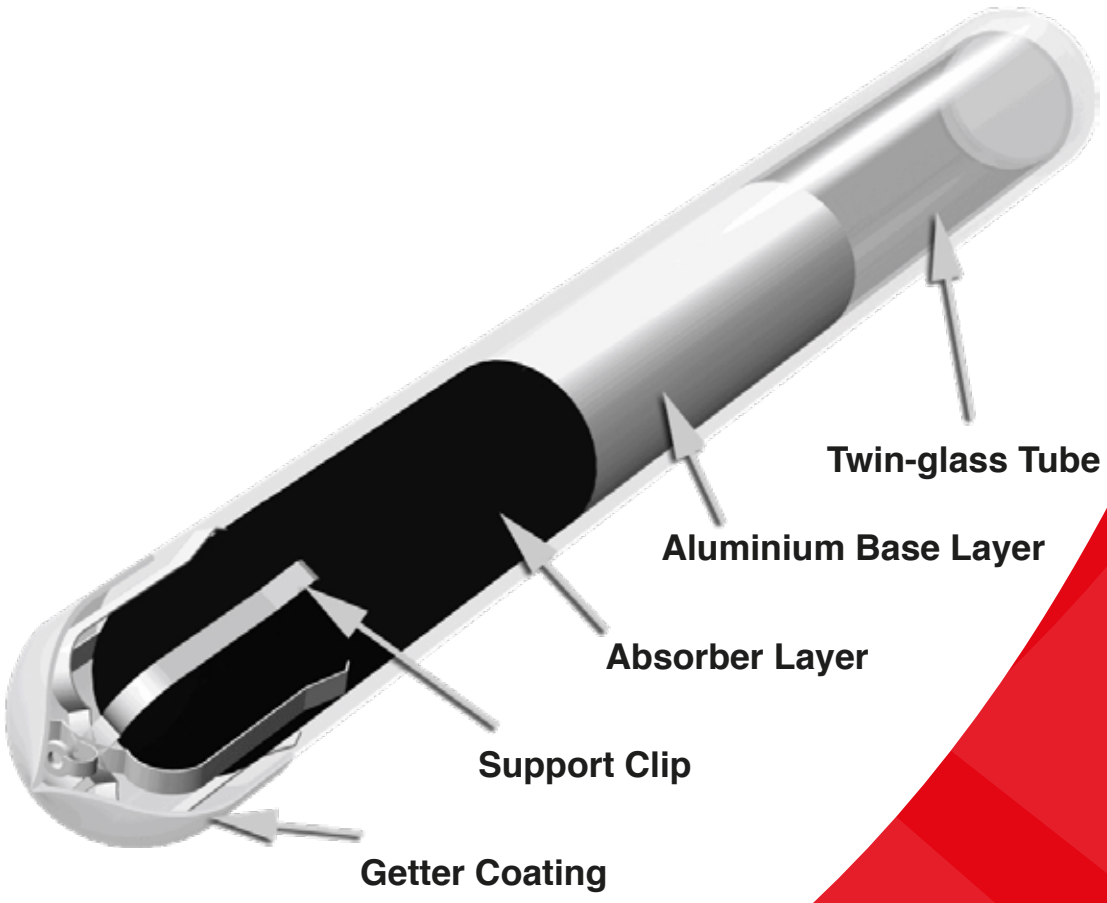
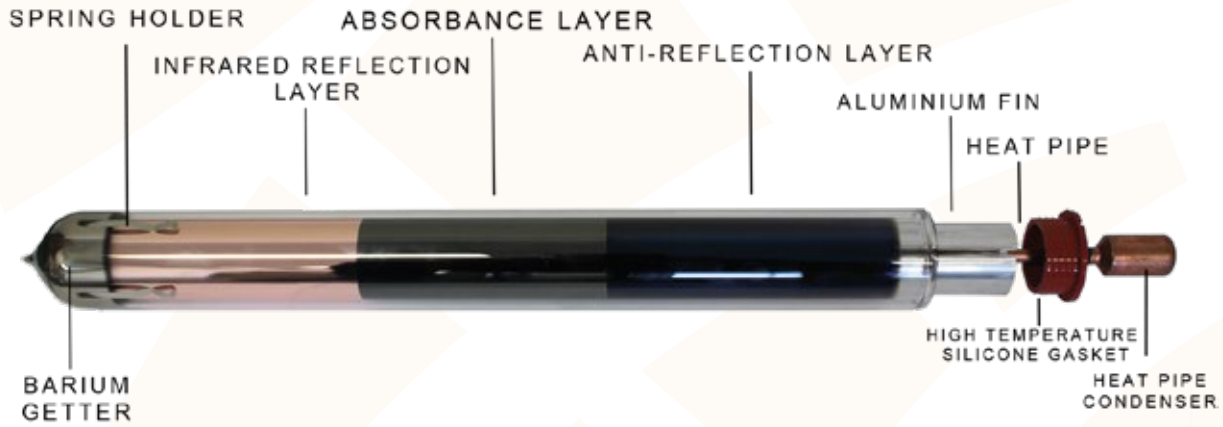
Evacuated tube

The evacuated tube is a product which has been optimised in terms of geometry and performance. Evacuated tubes consist of two concentric glass tubes which are sealed in a semi-circular shape on one side and are joined to one another on the other side. The space between the tubes is evacuated and then hermetically sealed (evacuated insulation). To use solar energy, the internal glass tube is coated with an environmentally friendly, highly selective layer on the outside, thus turning it into an absorber. This coating is thus protected in the vacuum cavity. The aluminium nitrite sputter coating used is characterised by extremely low emissions and excellent absorption.



Heat Pipe

Heat pipe: this is the core for heat pipe pressure solar collector,
Our heat pipe is more than 15 years life-span. Firstly, we choose the pure copper(Tu1 Cu>=99.97) as the raw material,
in case there will be the chemical reaction when it works;
Secondly, we use the pure water(after distillation two times) as the transfer medium, not like other factory use alcohol,
maybe the transmission is a little faster, but year by year,
there will be incoagulable steam on the condenser parts, so the efficiency is less year by year;
Third, we use the braze weld to guarantee no steam leakage;
Fourth, freeze protection for the frozen area, normally the transfer medium-water will be freed from top to bottom,
but there is not enough space on the bottom, so it may expand and
cracked at last;
Fifth, double layer on the cap of the condenser part.



Heat pipe collector

Siema collector is a pressurized evacuated tube heat pipe solar collectors that convert energy from the sun into usable heat. This energy can be used for domestic and commercial hot water heating, central heating, pool heating, and air conditioning.

Brief Specification:

- The manifold is an insulated box containing the header pipe which is made of copper.
- The outer insulation part is made of painted aluminium alloy.
- Insulation: polyurethane and aluminium silicate, the thickness of insulation is 35 mm.
- Glass vacuum tube: QB-AL-N/AL, 1800-58
- Heat Pipe: Pure copper (Tu1 Cu >=99.97) to avoid any chemical reaction may take place during operation.
- Frame: is made of painted aluminium or galvanized steel.

Manifold :

- The copper inner part of the manifold has a dry connection part (socket) into which the heat pipe is plugged.
- Copper vacuum pipe that transfers the heat from within the ET up to the manifold.
- The span of life may exceed 15 years.
- The manifold pressurized, it can stand a pressure of 8 bar.

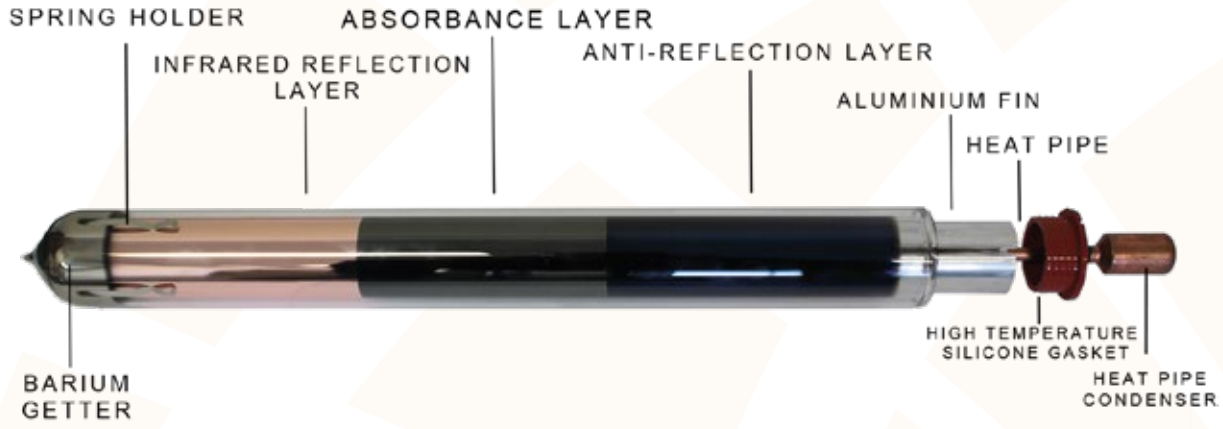
Type	Evacuated Tube Heat Pipe
Pressure	Pressurized
Method of Heating	Indirect, Close lope
Method of Connection	Split
Product v Model	PVM-HP
No. of Tubes	30 - 24 - 20 - 18 - 15, and as requested

Model	No. of tubes	Absorbing area (m^2)	Aperture area (m^2)	Weight (kg)	Dimentions (mm)		
					Width	Depth	Hight
PVM-HP 15	15	2.09	1.4	40	1350	1620	1100
PVM-HP 20	20	2.76	1.88	60	1750	1620	1100
PVM-HP 25	25	3.31	2.26	80	2070	1620	1100
PVM-HP 30	30	4.14	2.82	100	2550	1620	1100
Vacum tube size			Ø58 x 1800				
Maximum working pressure			6 bar				

Specifications are subject to change without prior notice.

Note: thickness of the stainless steel of the inner tank may be changed upon request.

- Maintains high performance.
- Provides high temperature.
- Stands high pressure.
- Has no water in the tubes, so no water loss if broken.
- Has no water in the tubes, so no water loss if broken.
- Easy to install.
- Needs almost no maintenance.
- Can stand below freezing temperature.



NON-PRESSURIZED COLLECTOR

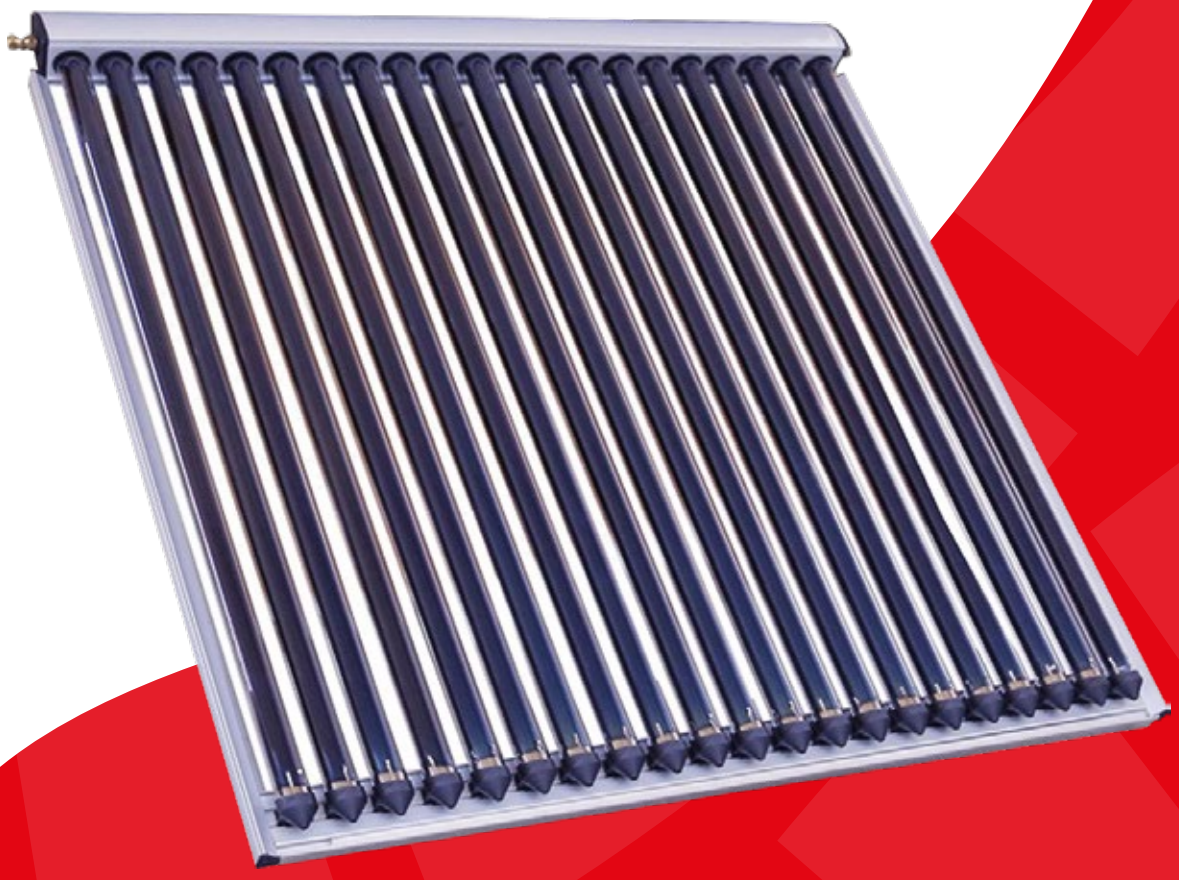
Siema collector is a pressurized evacuated tube heat pipe solar collectors that convert energy from the sun into usable heat. This energy can be used for domestic and commercial hot water heating, central heating, pool heating, and air conditioning.

Brief Specification:

- The inner part of the manifold: is made of stainless steel SUS304/SUS316; thickness: 0.5 mm - 1.0 mm.
- Outer tank: Pre-painted galvanized steel/ aluminium-zinc coated or powder coated galvanized steel, 0.5-0.4mm.
- Insulation: polyurethane 50-40mm thickness.
- Vacuum tube: QB-AL-N/AL, 1800-58.
- Frame: galvanized steel.

Solar water MANIFOLD:

- Inner water storage part is made of stainless steel SUS 316/304 which belongs to food grade and have better resistance to corrosion.
- The manifold is non-pressurized, so it should always be opened to the ambient atmosphere.
- The manifold should always be filled with water as the dry high temperature working conditions may damage the tank.



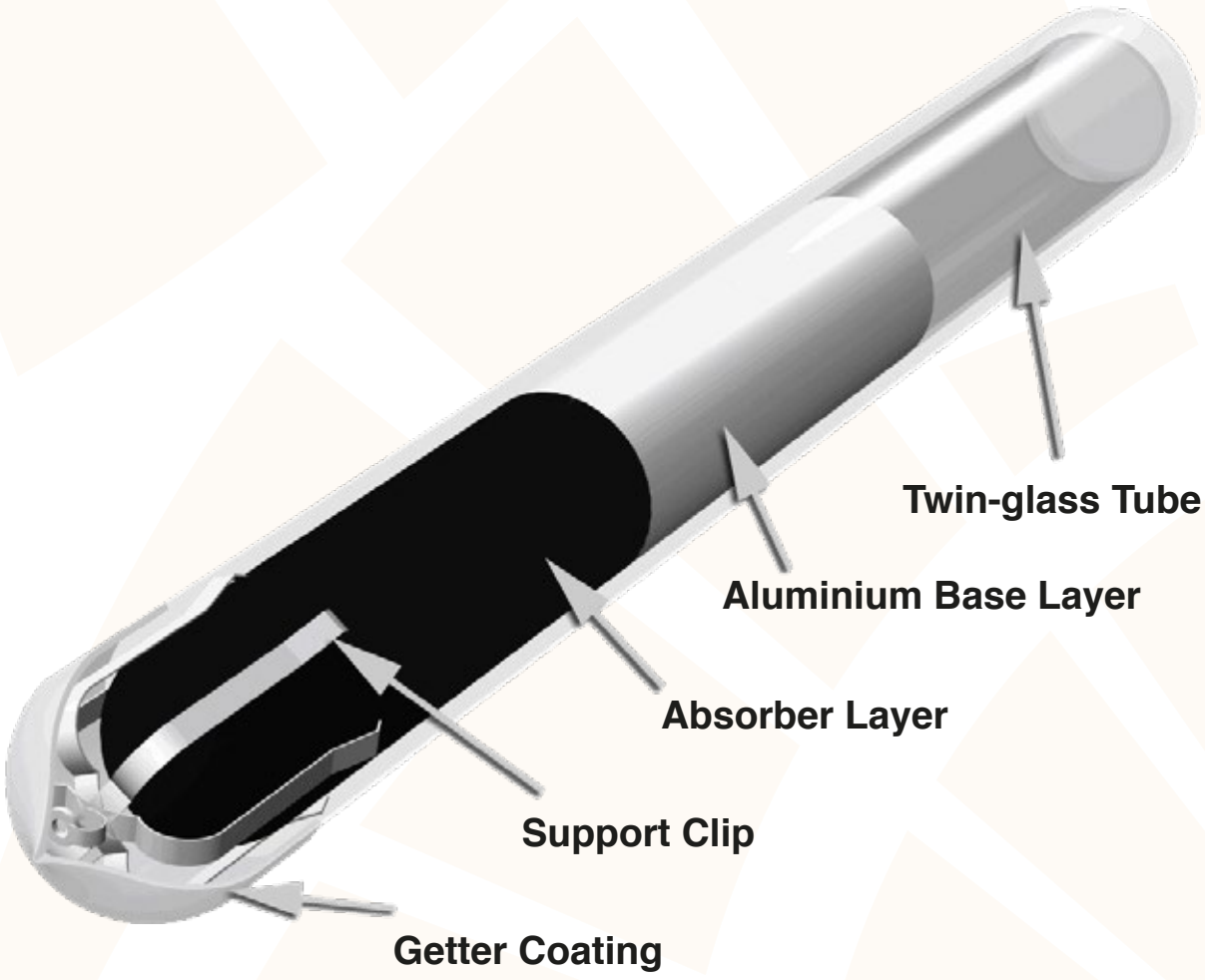
Type	Glass-Glass Evacuated Tube
Pressure	Non-pressurized
Method of Heating	Indirect, Close lope
Method of Connection	Split
Product v Model	VSM
No. of Tubes	15 - 18 - 20 - 24 - 30, and as requested

Model	No. of tubes	System capacity (liter)	Absorbing area (m^2)	Aperture area (m^2)	Weight (kg)	Dimentions (mm)		
						Width	Depth	Hight
VSM 15	15	95	2.09	1.4	61	1350	1620	1100
VSM 18	18	98	97	1.69	68	1610	1620	1100
VSM 20	20	99	2.76	1.88	72	1750	1620	1100
VSM 24	24	102	3.31	2.26	83	2070	1620	1100
VSM 30	30	109	4.14	2.82	98	2550	1620	1100

Vacum tube size	Ø58 x 1800
Maximum working pressure	0.5 bar
Steel thickness of inner tank:	0.5 mm

Specifications are subject to change without prior notice.

Note: thickness of the stainless steel of the inner tank may be changed upon request.



NON-PRESSURIZED SOLAR WATER HEATER

Brief Specification:

- Inner tank: is made of stainless steel SUS304/SUS316; thickness: 0.5 mm - 0.6 mm,or stainless steel SUS304/SUS316; thickness: 0.5 mm - 1.2 mm or galvanized steel - G90; thickness: 2 mm.
- Outer tank: Pre-painted galvanized steel/ aluminium-zinc coated or powder coated galvanized steel, 0.5-0.4mm.
- Insulation: polyurethane 60-50mm thickness.
- Vacuum tube: QB-AL-N/AL, 1800-58.
- Frame: coated galvanized steel.

Solar water tank:

- The tank is made of stainless steel SUS 316/304 which belongs to food grade and have better resistance to corrosion.
- The tank is non-pressurized, so it should always be opened to the ambient atmosphere.
- The tank should always be filled with water as the dry high temperature working conditions may damage the tank.

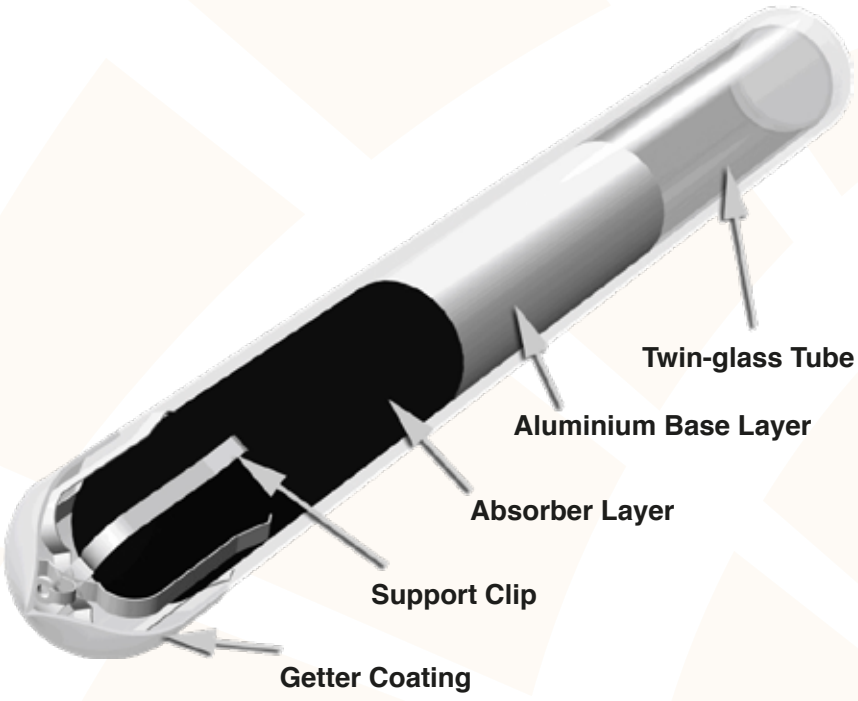
Type	Glass-Glass Evacuated Tube
Pressure	Non-pressurized
Method of Heating	Indirect, Close lope
Method of Connection	Split
Product v Model	VST/ VST DX / VGT
No. of Tubes	15 - 18 - 20 - 24 - 30, and as requested

Model	No. of tubes	System capacity (liter)	Absorbing area (m²)	Aperture area (m²)	Weight (kg)	Dimentions (mm)		
						Width	Depth	Hight
VST/VST DX /VGT 15	15	170/188/170	2.09	1.4	103/90/74	1350	1620	1680
VST/VST DX /VGT 18	18	197/222/197	2.48	1.69	117/99/81	1610	1620	1680
VST/VST DX /VGT 20	20	224/245/224	2.76	1.88	125/105/86	1750	1620	1680
VST/VST DX /VGT 24	24	267/290/267	3.31	2.26	141/116/95	2070	1620	1680
VST/VST DX /VGT 30	30	333/347/333	4.14	2.82	165.5/133/109	2550	1620	1680

Vacum tube size	Ø58 x 1800
Maximum working pressure	0.5 bar
Steel thickness of inner tank:	0.5 mm

Specifications are subject to change without prior notice.

Note: thickness of the stainless steel of the inner tank may be changed upon request.



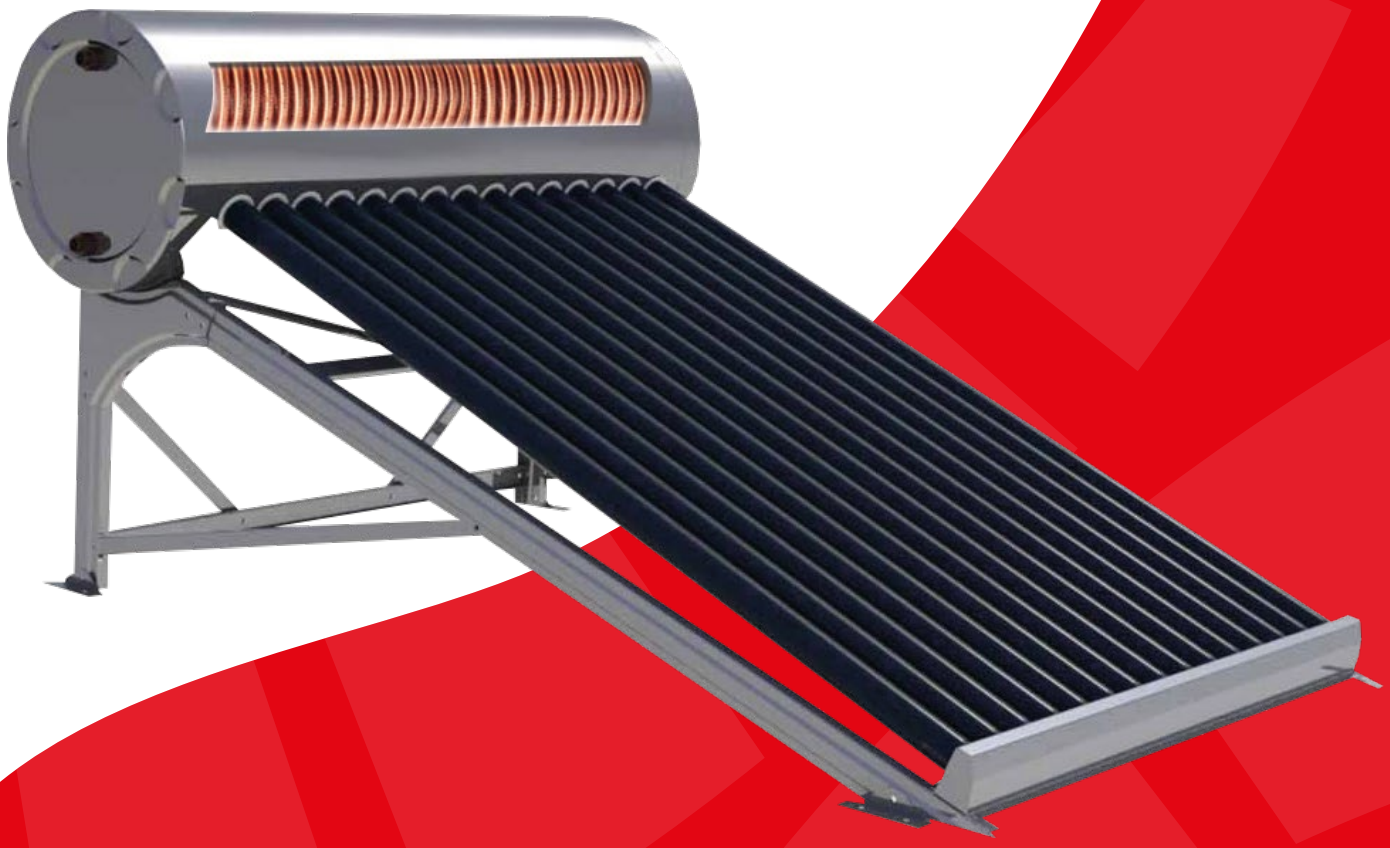
PRESSURIZED SOLAR WATER HEATER- copper coil

Brief Specification:

- Inner tank: is made of stainless steel SUS304/SUS316; thickness: 1.0 mm - 1.2 mm.
- Outer tank: Pre-painted galvanized steel/ aluminium-zinc coated or powder coated galvanized steel, 0.5-0.4mm.
- Insulation: polyurethane 60-50mm thickness.
- Vacuum tube: QB-AL-N/AL, 1800-58
- Coil: red copper heat exchanger with a diameter of 12 mm.
- Frame: coated galvanized steel.

Solar water tank:

- The tank is made of stainless steel SUS 316/304 which belongs to food grade and have better resistance to corrosion.
- The span of life is much longer because of the high thickness of the inner tank and the Argon welding.
- very efficient heat exchanger; the temperature difference between the heating water and the domestic water is 4-3 C°.
- The tank is non-pressurized, so it should always be opened to the ambient atmosphere.
- The tank should always be filled with water as the dry high temperature working conditions may damage the tank.



Type	Glass-Glass Evacuated Tube
Pressure	pressurized
Method of Heating	Thermosyphon
Method of Connection	Direct
Product v Model	PVST-C
No. of Tubes	15 - 18 - 20 - 24 - 30, and as requested

Model	No. of tubes	System capacity (liter)	Absorbing area (m²)	Aperture area (m²)	Weight (kg)	Dimentions (mm)		
						Width	Depth	Hight
PVST-C 15	15	188	2.09	1.4	90	1470	1620	1680
PVST-C 18	18	222	2.48	1.69	99	1730	1620	1680
PVST-C 20	20	245	2.76	1.88	105	1870	1620	1680
PVST-C 24	24	290	3.31	2.26	116	2190	1620	1680
PVST-C 30	30	347	4.14	2.82	133	2550	1620	1680

Vacum tube size	Ø58 x 1800
Maximum working pressure	4 bar
Steel thickness of inner tank:	1.2 mm

Specifications are subject to change without prior notice.

Note: thickness of the stainless steel of the inner tank may be changed upon request.

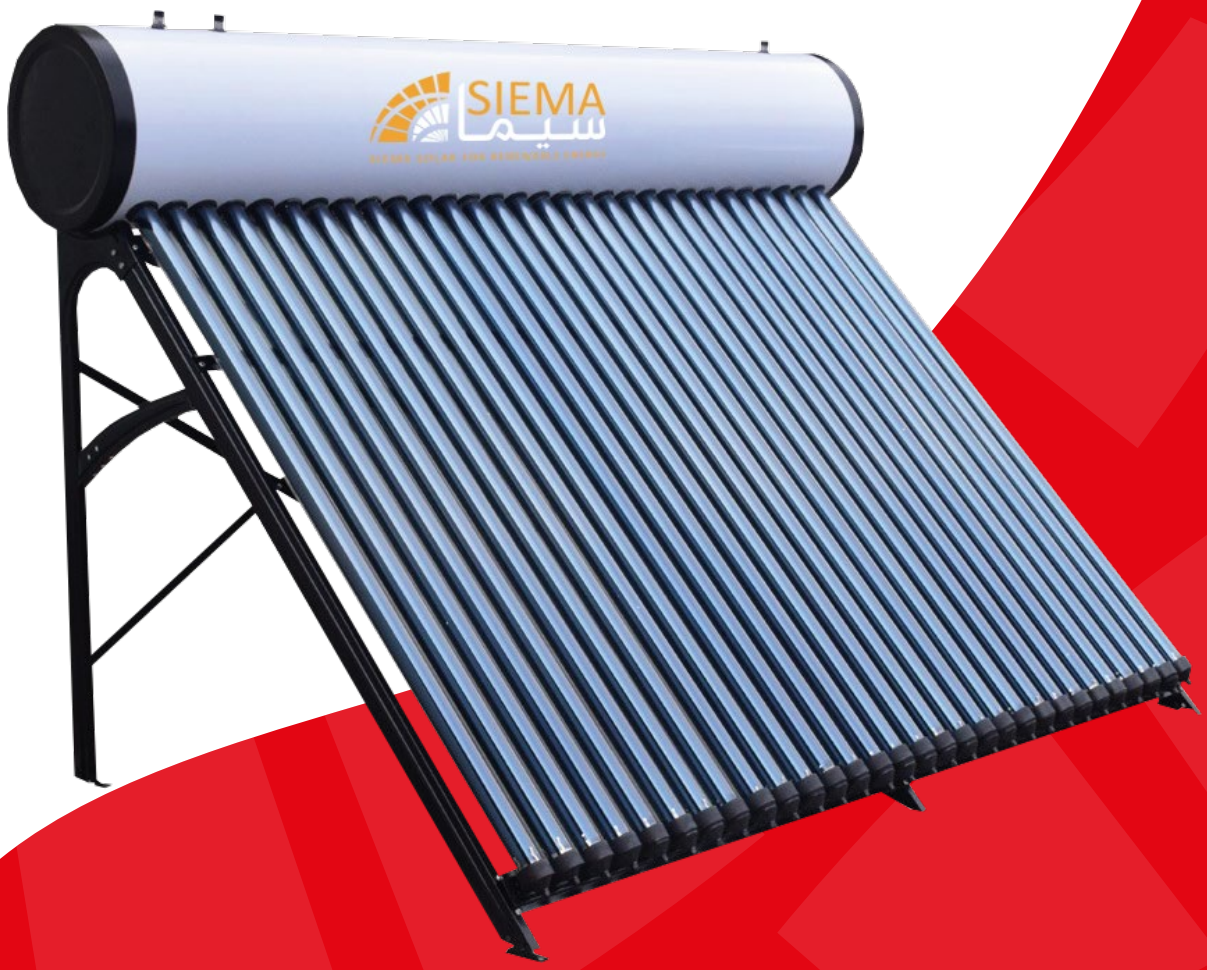
PRESSURIZED SOLAR WATER HEATER-HEAT PIPE

Brief Specification:

- Inner tank: is made of stainless steel SUS304/SUS316; thickness: 1.2 mm - 2.0 mm.
- Outer tank: Pre-painted galvanized steel/ aluminium-zinc coated or powder coated galvanized steel, 0.5-0.4mm.
- Insulation: polyurethane 60-50mm thickness.
- Vacuum tube: QB-AL-N/AL, 1800-58.
- Heat Pipe: Pure copper (Tu1 Cu >=99.97) to avoid any chemical reaction may take place during operation.
- Frame: coated galvanized steel.

Solar water HEATING SYSTEM:

- The tank is made of stainless steel SUS 304 & SUS 316 which belongs to food grade and have better resistance to corrosion.
- The span of life is much longer because of the high thickness of the inner tank and the Argon welding.
- No water gets into the glass vacuum tube, This will cause no water loss when the tube is broken.
- The tank is pressurized.
- The system is easy to install and easy to maintain.



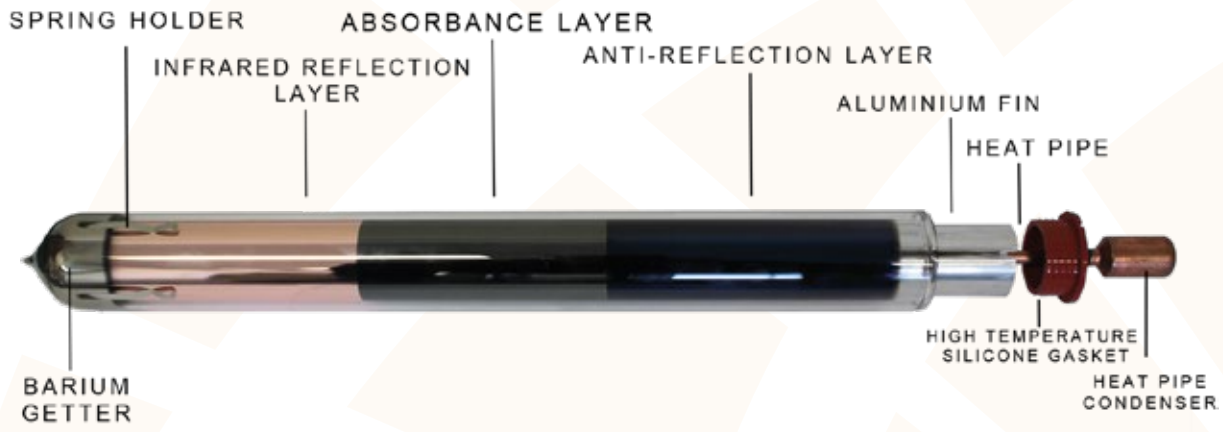
Type	Glass-Glass Evacuated Tube
Pressure	pressurized
Method of Heating	Thermosyphon
Method of Connection	Direct
Product v Model	PVST-HP
No. of Tubes	15 - 18 - 20 - 24 - 30, and as requested

Model	No. of tubes	System capacity (liter)	Absorbing area (m²)	Aperture area (m²)	Weight (kg)	Dimentions (mm)		
						Width	Depth	Hight
PVST-HP 150	15	148	2.09	1.4	90	1470	1620	1680
PVST-HP 175	18	173	2.48	1.69	99	1730	1620	1680
PVST-HP 200	20	192	2.76	1.88	105	1870	1620	1680
PVST-HP 250	24	226	3.31	2.26	116	2190	1620	1680
PVST-HP 300	30	266	4.14	2.82	133	2550	1620	1680

Vacum tube size	Ø58 x 1800
Maximum working pressure	6 bar
Steel thickness of inner tank:	2.0-1.2 mm

Specifications are subject to change without prior notice.

Note: thickness of the stainless steel of the inner tank may be changed upon request.
Quantity of tubes may be changed upon request



Compact hot water flat plate solar system

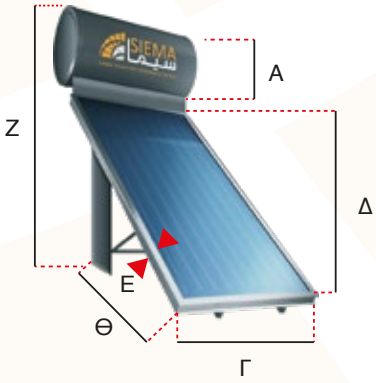
TECHNICAL SPECIFICATIONS OF STORAGE TANK:

In our new UAE branch, we designed a new model of storage tank from SUS 304, SUS 316, to be more suitable for any kind of water type, whatever soft water or high TDS inside, will not be affected by corrosion.

Siema started a commercial cooperation with one of the most well-known Greek company; through which we became capable of providing our customers with very high European standard products. The inner part of the hot storage steel tanks is enamelled with a 3 mm thickness, in addition to the most durable copper tanks which maintain the highest efficiency at the longest lifespan.

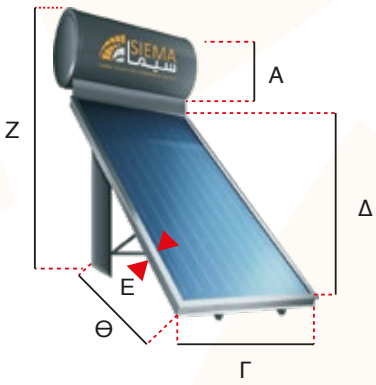
• Insulation: expanded high-density polyurethane (44 kg/m3) thickness of 50-60 mm.
• Thermal insulation conductivity: 0,0180 W / mK.
• Anode Rod Protection
• External Cover: in any types according to your needs (grey or white).
• Side lids: specially designed and shaped lids, without needs for ancillary screws.
• Electrical resistance: power according to the regulations of the country of destination, with a thermostat unipolar control and bipolar protection.
• Receptor for the strain of the thermostat.
• Test pressure 6 Bar, operating pressure 4 Bar.
T/P valve: 4 bar / 90°C
Capacity: 100~300L

Dimensions in cm & weights GLASS Solar Heaters with Phaethon Collectors



Model	A	Γ	Δ	E	Z	Θ	Capacity/Ltr	Absorbing Area / m²	Weight /Kg
120/1,7PH	53	105	160	8.6	153	167	120	1.68	101
160/2,0PH	53	120	200	8.6	178	200	160	2.00	125
160/2,4PH	53	120	200	8.6	178	200	160	2.40	129
160/2,4HPH	53	200	120	8.6	151	110	160	2.40	129
160/3,4PH	53	210	160	8.6	153	167	160	3.36	148
200/2,4PH	58	120	200	8.6	178	200	200	2.40	141
200/3,4PH	58	210	160	8.6	158	167	200	3.36	160
300/4,0PH	58	208	200	8.6	183	200	300	4.00	219
300/4,8PH	58	242	200	8.6	183	200	300	4.80	228

Dimensions in cm & weights GLASS Solar Heaters with Atlas Collectors



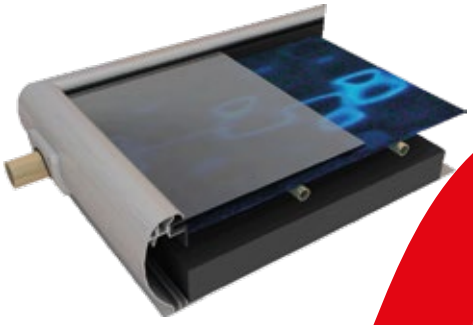
Model	A	Γ	Δ	E	Z	Θ	Capacity/Ltr	Absorbing Area / m²	Weight /Kg
120/1,5A	53	101.5	156.5	7.5	153	167	120	1.59	96
160/2,0A	53	116.5	196.5	7.5	178	200	160	1.9	115
160/2,3A	53	116.5	196.5	7.5	178	200	160	2.29	118.5
160/2,3HA	53	196.5	116.5	7.5	151	110	160	2.29	118.5
160/3,0A	53	210	156.5	7.5	153	167	160	3.18	138
200/2,3A	58	116.5	196.5	7.5	178	200	200	2.29	130
200/3,0A	58	210	156.5	7.5	158	167	200	3.18	150
300/4,0A	58	205	196.5	7.5	183	200	300	3.80	201
300/4,6A	58	242	196.5	7.5	183	200	300	4.58	209

Flat plate panel

Flat Plate collectors

Siema started a commercial cooperatin with one of the most well-known Greek company; through which we became capable of providing our customers with a very high European standard products.

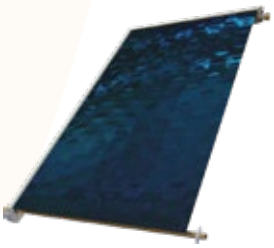
QUALITY AND ELEGANCE



Collector's frame from lateness design aluminium profiles.
SUPERIOR SEALING
The internal sealing is achieved with a special E.P.D.M rubber without the use of silicone.
MINIMIZED LOSSES
With strong rock wool insulation (d = 50 kg/m3) to the back of the collector and side, we cut to a minimum of collector's heat loss.

HIGH PERFORMANCE

With selective collectable surface applied to a carcass consisting of copper tubes, with laser technology.



ROBUST CONSTRUCTION

With special aluminium corner links, ensuring the optimum implementation of the framework and strengthening of the whole construction.

Specially designed oval rubber, adapted to exit holes of the collector, to avoid the distortion of copper pipes from the phenomenon of contraction - dilation

Technical characteristics of collector:

1. Frame: aluminium profiles, lateness design with internal corner aluminium links, that ensure the best possible implementation of the framework and the stability of the whole construction.
2. Back to the collector: European grey steel (ral 9006), posted without screw connections, fully sealed.
3. Glass: security, tempered, highly permeable, 4 mm with E. PDM rubber for full sealing.
4. Insulation (back): Rockwool (d = 50kg / m3).
5. Lateral insulation: Rockwool (d = 50kg / m3).
6. Absorber: Single aluminium surface (full plate) 0,5mm selective, coating of titanium, welded with high-tech laser.
7. Absorber's Tubing: bronze tubes Ø 0.8 mm & Ø 22 mm .
8. Specially designed oval rubber, adapted to copper pipes that connect the collector, to prevent the phenomenon of dilation - contraction.

COLECTOR'S TYPE	DIMENSIONS (cm)	COLLECTOR'S SURFACE	WEIGHT per COLLECTOR	PRESSURE DROP (Pa)
SA170	105 x 160 x 8,6	1,68 m²	32	180
SA200	100 x 200 x 8,6	2,00 m²	39	200
SA240	120 x 200 x 8,6	2,40 m²	44.5	200

Cooling unit

In the Gulf region, it's not easy to get cold water for either residential, commercial or industrial uses, due to the extremely high temperatures, especially in the summer.

Although some solutions are currently available, they are inefficient and consume a large amount of energy.

Sima solar has designed a water cooling system consists of several parts, the most important of which is a cooling unit that is powered by energy saving system and uses eco-friendly R410 gas. PV cells can also be added to the system to reduce energy consumption by as little as possible.

The other part is a tank with high thermal insulation, it is available in multiple sizes to suit all requirements.

There are also some other parts such as the control panel and the connections needed to install the system in an integrated way.

Water cooling machine KZEX TYPE Built-in Exchanger

item	KZEX- 25 9000btu		KZEX- 12000 35btu		KZEX- 18000 50btu		KZEX 24000 70btu		KZEX- 36000 100btu	
Rating out-water temperature(°C)	5-30		5-30		5-30		5-30		5-30	
Power voltage/frequency(V/Hz)	220/50 220/60									
Cooling capacity(BTU)	9000		12000		18000		24000		36000	
Input power(kw)	0.7		1.1		1.6		2.2		3.8	
Input current(A)	3.8		5.0		7.2		10.0		17.3	
Min out-water temperature(°C)	5		5		5		5		5	
Quality(kg)	30		35		40		50		80	
Noise(Db(A))	≤50		≤50		≤50		≤55		≤55	
Take-over dimension(mm)	40		40		40		50		50	
Water-box capcity(L)	80	150	160	250	220	350	300	450	500	700
Cooling speed 35°CTo 18°C(MIN)	15	35	15	35	15	35	15	35	15	35
Cooling speed 35°CTo 7°C(MIN)	38	100	38	100	38	100	38	100	38	100

Water cooling machine KZ TYPE

Used in separated, indirect (closed loop) system.

The hot water is transferred through a pump to the coil of the cylinder that works as exchanger transferring the heat to the domestic water around the coil.

item	KZ- 25 9000btu	KZ- 12000 35btu	KZ- 18000 50btu	KZ- 24000 70btu	KZ- 36000 100btu
Rating out-water temperature(°C)	5-30	5-30	5-30	5-30	5-30
Power voltage/frequency(V/Hz)	220/50 220/60				
Cooling capacity(BTU)	9000	12000	18000	24000	36000
Compressor	Rotary T3 compressor GMCC brand				
Input power(kw)	0.9	1.1	1.6	2.2	3.3
Input current(A)	4.1	5.0	7.2	10.0	15.0
Min out-water temperature(°C)	5	5	5	5	5
Quality(kg)	30	35	40	50	80
Noise(Db(A))	≤50	≤50	≤50	≤52	≤52
Net Dimensions(mm)	540×240×760	540×240×760	680×300×800	840×350×950	840×350×950

1- Outdoor Unit
2- Water Tank
3- Refrigerant Connection Pipe.
4- Cold Water Inlet.
5- Cold Water Outlet.
6- Domestic Water.

Electric water heater

Sima provides a high-quality electric water heater using the finest types of treated iron and covered with a glass plate to protect it against rust and damage.

It is also available in stainless steel to ensure a long life and exceptional efficiency.

As for the heating unit, it is available in different capacities in proportion to the size of the heater and it comes with additional safety sensor on demand to ensure protection and safety.

product specification

The patent ultimate insulation wall technology can ensure safety bathing even in an unsafe power utilization environment.

The safe early warning technology can monitor the power utilization environment all the time to remind the user promptly in case of problems.

The patent ultimate insulation wall technology can ensure safety bathing even in an unsafe power utilization environment.

Enamel tank
Imported enamel powder
advanced enamel equipment
leasing enamel technology

Energy saving
360° Integrated foaming technology.
Mechanical temperature control

High Quality
IPQC, IPQC, FQC, OQC Quality system.
First class raw materials

Safe
Over temperature protection
Empty heating portion. Overpressure protection

Wall Hang Product specification

Wall hung vertical type. The classical shape can satisfy family water heater alternation and small space requirement, °360 integrated foaming technology keeps the warm loss to be the least, The tank is manufactured from steel sheet coated with high-quality anti-corrosion enamel in combination with a protective magnesium anode. It keeps water heater tank rusty-proof, durable and stable to use.

Model	FJE-15	FSH-30A
Capacity	15L	30L
Power	1500W	1500W
Rated	220V/50HZ	220V/50HZ
Waterproof	IPX4	IPX4
Max pressure	0.8Mpa	0.8Mpa
Max temperature	75ºC	75ºC
N.Wt(kg)	8	13
G.Wt(kg)	9	14
Mounting style	Wall hung	Wall hung

Horizontal product specification

Beautiful design LED Color screen with dynamic display is clear, stylish, The power-off memory function can save the current state automatically on power failure and restore automatically after power recovery, unnecessary for resetting, Finally, The separate drain makes it easier to clear the internal bladder

Model	FJC-40	FJC-50	FJC-60	FJC-80	FJC-100
Capacity	40L	50L	60L	80L	100L
Power	2000W	2000W	2000W	2000W	2000W
Rated	220V/50HZ	220V/50HZ	220V/50HZ	220V/50HZ	220V/50HZ
Waterproof	IPX4	IPX4	IPX4	IPX4	IPX4
Max pressure	0.8Mpa	0.8Mpa	0.8Mpa	0.8Mpa	0.8Mpa
Max temperature	75ºC	75ºC	75ºC	75ºC	75ºC
N.Wt(kg)	17	20	23	26	32
G.Wt(kg)	19	22	25	28	32
Mounting style	horizontal	horizontal	horizontal	horizontal	horizontal

Vertical product specification

Vertical mechanical controlling series is a Wet enamelled tank (glass-lined tank) work by the Mechanical controlling electric water heater with Multi-protection settings, Dry burning protection, over temperature protection, Electricity leakage protection.

Model	FJI-40	FJI-40	FJI-50	FJI-60	FJI-80	FJI-100
Capacity	30L	40L	50L	60L	80L	100L
Power	1500W	1500W	1500W	1500W	1500W	1500W
Rated	220V/50HZ	220V/50HZ	220V/50HZ	220V/50HZ	220V/50HZ	220V/50HZ
Waterproof	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
Max pressure	0.8Mpa	0.8Mpa	0.8Mpa	0.8Mpa	0.8Mpa	0.8Mpav
Max temperature	75ºC	75ºC	75ºC	75ºC	75ºC	75ºC
N.Wt(kg)	17	20	23	26	32	34
G.Wt(kg)	19	22	25	28	32	36
Mounting style	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical

Water Storage Tank

Siema solar plants, manufacture water storage tanks system according to the highest international standards, which means that the internal tank is made of either processed black iron covered with a layer of glass, galvanized iron or stainless steel (304,316) as requested.

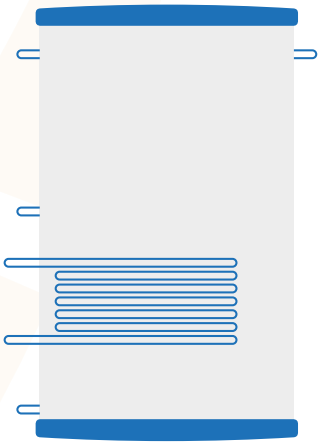
As for the heat exchanger, it is calculated to the highest standards to ensure the efficiency of heat transfer.

The system may be equipped with a single or double heat exchanger, as requested, to meet all requirements such as connecting it with the solar energy system, the system is insulated with foam polyurethane to keep the liquid warm. From the outside, the system is covered with a layer of pre-painted and processed iron at the best standards to enable its use in enclosed or exposed places.

The system is available in different sizes from 100 to 1000 litres, with standard specifications and the ability to manufacture special measurements as the request.

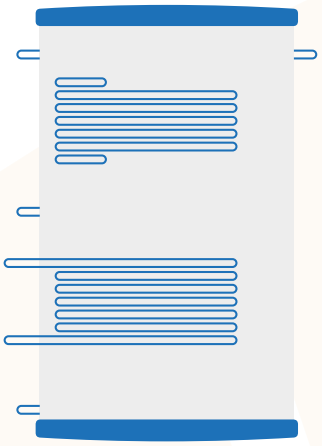
Single Coil Cylinders

Used in separated, indirect (closed loop) system. The hot water heated by the sun is transferred through a pump to the coil of the cylinder that works as exchanger transferring the heat to the domestic water around the coil.



Double Coil Cylinders

As Single Coil Cylinder, it is used in separated, indirect (closed loop) system. The hot water heated by the sun is transferred through a pump to the coil of the cylinder that works as exchanger transferring the heat to the domestic water around the coil. But the cylinder has another coil that can be connected to another source of energy like hot water boilers.



Product specification

1 - The storage tank is made of either processed black iron covered with a layer of glass, galvanized iron or stainless steel (304,316) as requested.

2 - Outer insulation sheet is made of pre-painted treated steel 0.6mm.

3 - Insulation: polyurethane 50mm/60mm.

Main features

1 - Used for closed loop solar water heating systems

2 - Supplies a good quantity of hot water very quickly and at a high temperature

3 - Insulation of the PU foam 50 mm thickness is very effective and has very low thermal conductivity.

4 - Meeting the demand of well-to-do families

5 - Economical goods

Photovoltaic

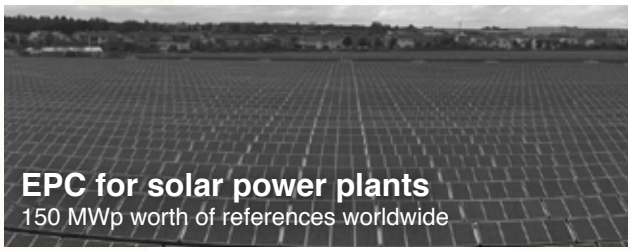
Go green is one of the most important challenges that the entire world is trying to reach to reduce fuel consumption and fundamentally clean environment. In order to achieve this challenge, there are several means that vary according to the region and the different sources available.

Unfortunately, the region is facing a challenge as it has a dusty environment, which requires some modifications to the system to ensure the highest efficiency in energy production throughout the year.

Therefore, Siema solar has cooperated with a German company to find solutions suitable for the Gulf environment through the extensive experience of this company in the implementation of large projects in various countries with different environmental conditions, and all their projects have achieved great success.

Regarding the reduction of energy consumption Gulf states are the most applicable regions for the photo-voltaic system due to the available sunlight rays during the year.

PV technology can be employed in a variety of applications: Typical applications of PV technology include remote telecommunications, cathodic protection of pipelines, PV home systems, vaccine refrigeration, water pumping, grid-connected or building integrated systems.

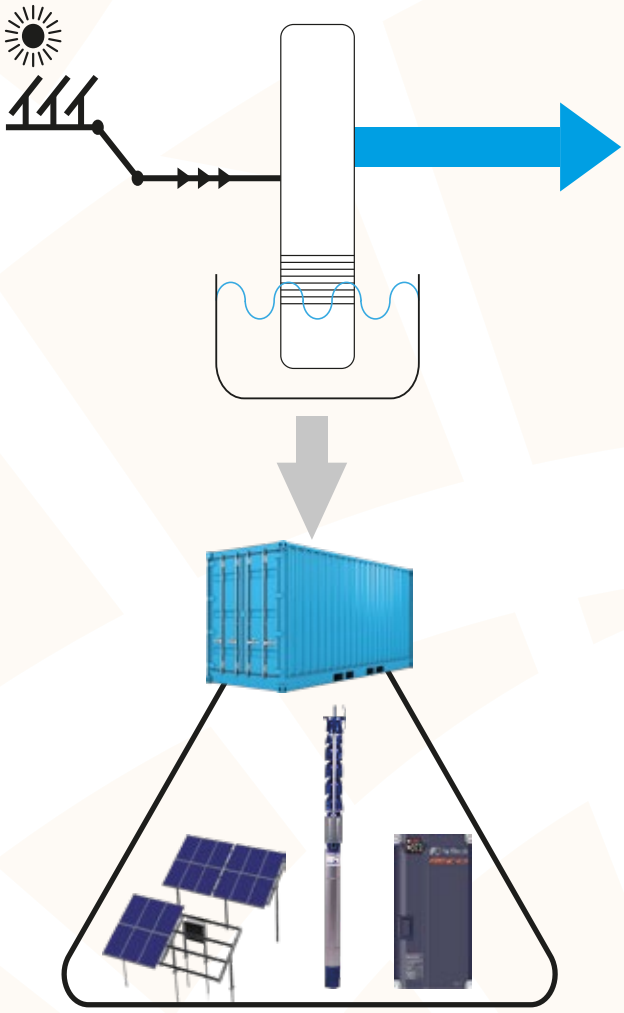


What makes VISPIRON successful?
Diversity and innovation

VISPIRON is a German technology company founded in Munich in 2002.
As a group of companies, we offer innovative and sustainable engineering services.

Solar Powered Water pump System

What we offer: High quality, individually optimized, mid and largescale solar powered pump stations (> 50 kW) to perfectly satisfy all project needs and minimize the use of expensive fossil fuel



Who we are:

VISPIRON ENERGY provides efficient Solar technology and reliable EPC services
KSB provides high-quality Pump technology Fuji Electric provides excellent controller technology

Solar pumping:

-Environmentally friendly
-Removing reliance on costly fuels and unreliable grid supply
-Easy installation and startup, high reliability and low operation and maintenance costs

Applications:

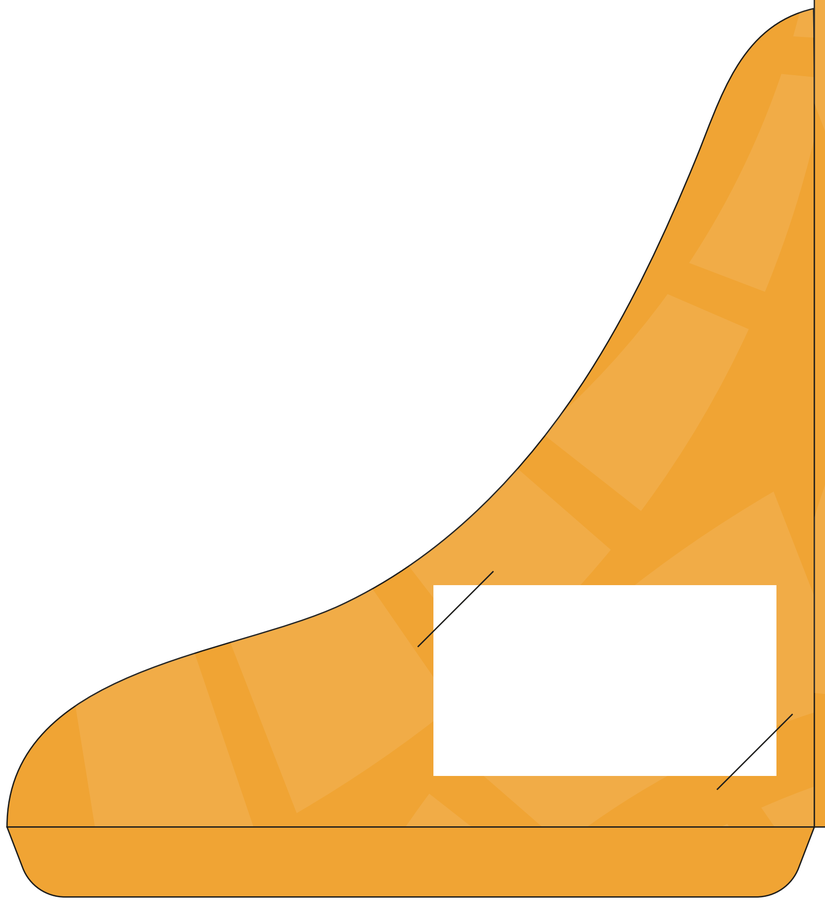
- Water extraction -- well fields, rivers etc.
- Municipal & industrial
- Agricultural -- Irrigation

Our solution:

A design according to all project and client demands such as water availability, Water demand, supply security, the available area for the Solar plant. The result is an operationally and costs optimized solar powered pump station.

Our product:

-All-In-One Solar pump station Designed to a logistic concept In standard containers.
- Project planning & management, Procurement of financial solutions and EPC services by VISPIRON ENERGY.



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SIEMA
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Solar Water Heater

Cooling Unit

Electric Water Heater

Water Storage Tank

Photovoltaic