

300L Closed Loop Split Solar Water Heating System

1) System components and description:

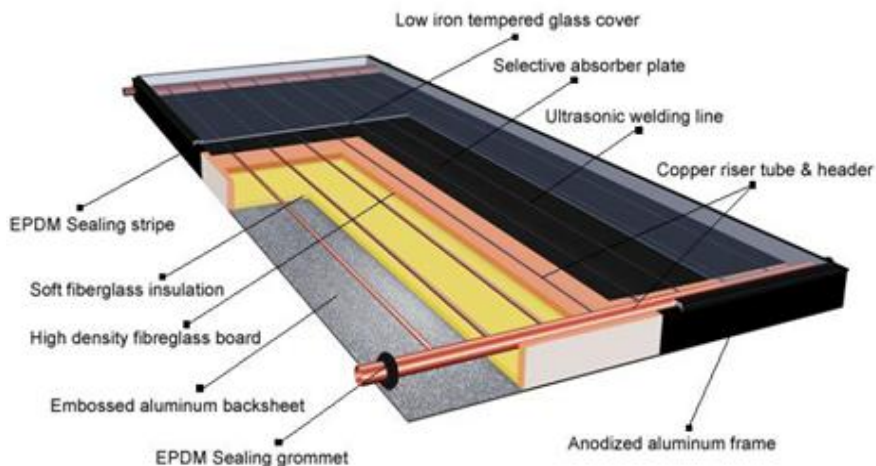
Part Name / Model No.		H-300S
Description		300L split pressurized closed loop circulation solar system
Tank Capacity		300 Liters
Collector		HSC-01QT-8A
Absorber surface		Nickel bottom coating + Selective black chrome surface.
Number of collector		2 collectors
Gross Absorber Area		4M2
Tank Heat Exchanger		Twin copper coil heat exchanger
Auxiliary Electric heater		2KW
Working station	Control System + thermostat	Full automatic control working station. Auto or manual start/stop the pump and the electric heater under preset mode. collector/pipeline frost protection, tank/collector high temperature protection.
	Circulation pump	WILO RS15/6 hot water circulation pump
	Expansion tank	8 liters expansion tank
	Fitting / Valves/ gauges	Brass fittings Pressure gauge, digital flowmeter Valve of safety valve: 6 bar safety valve Assistant parts: T valves, ball valves, etc

2) Collector Specification:

Absorber coating: Nickel bottom coating + Selective black chrome surface.
 Optical Performance: Absorption: minimum 95% / Thermal Emission: ,maximum 12%
 Risers tube: 1886mm x Φ 10mm x δ 0.45mm
 Riser fin: Copper 1840mm x 140mm x δ 0.15mm
 Header tube: 1060mm x Φ 22mm x δ 0.6mm
 Number of Risers: 8 risers
 Frame Casing: Anodized Aluminum alloy
 Cover glass: 3.2mm low-iron tempered patterned solar glass
 Insulation: 25mm soft fiberglass layer + 25mm high- density fiberglass board.
 Back sheet: 0.5mm aluminum board.
 Sealing profile: EPDM
 Connection: \varnothing 22mm
 Ext. Dimension: 2000 x 1000 x 82mm (L x W x H)
 Gross /Absorber area: 2.0m²/1.85m²
 Operation pressure: 6.5Kpa / 6.5bar



3) Structure of the collector



4) Water tank specification

Model Number	ST-300AV
Capacity	300 litres
Internal Tank material	1.5mm SUS304 high grade stainless steel
Internal Tank Diameter	dia. 470mm x 1750mm
Outer Case Material	0.6 mm painted steel
Tank out Diameter	Dia. 555mm x 1820
Insulation thickness	45mm high-density Polyurethane
Working Pressure	6 bar
Heat Exchanger	Up for solar circulation: copper coil: Φ 12mm x δ 1mm x 25 meters Down for gas heat circulation: copper coil: Φ 12mm x δ 1mm x 20 meters
Tank accessories	1 x Pressure and temperature relief valve 1 x Auto air vent 1 x Vacuum breaking valve. 1 x 2KW electric heater

5) System Drawing:



WORKING STATION