

# CHIRYU H E A T E R

## Solar Heater



*Chiryu Heater Co., Ltd. was founded in 1944, and the most experienced specialist of solar energy in Japan.*









## Thermosiphon Water Heater

Thermosiphon solar water heater is one of the most cost effective utilization of natural energy.

Chiryu Heater has been manufacturing thermosiphon 1963.

Solar heated water become light and float up to the storage tank, and cold water in the tank flows down to the collectors. Hot water is kept warm even in the midnight when the outside temperature goes down chilly.

Model	250S-H2	250S-3	250S-4	250SF-H2
				
*Storage Tank	①	①	①	②
*Collector	A × 1	B × 2	C × 2	A × 1
Weight with water	313 kg	338 kg	354 kg	296 kg

Model	250SF-3	250SF-4	300S-4	300S-6
				
*Storage Tank	②	②	③	③
*Collector	B × 2	C × 2	C × 2	C × 3
Weight with water	321 kg	337 kg	420 kg	461 kg

## Forced circulation system



**Freeze protection**  
Anti-freeze is used as circulating fluid to prevent freezing damage.

### Rust free.

Storage tank is made of Molybdenum Fer-rite Stainless steel. Rust-free, contamination-free, anode-free, and no cleaning required.

### Insulated 300 liter tank

Large 300/370 liter tank stores sufficient hot water for domestic use. Due to insulation, hot water is available evenings and following mornings.

### Light load for roof

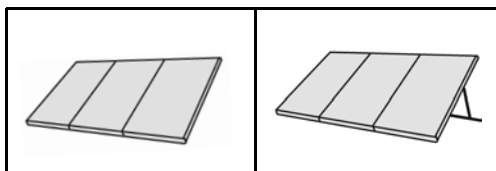
Heavy storage tank stays on the ground. Solar collector weighs only 37 kg per 1 unit, 2m<sup>2</sup>.

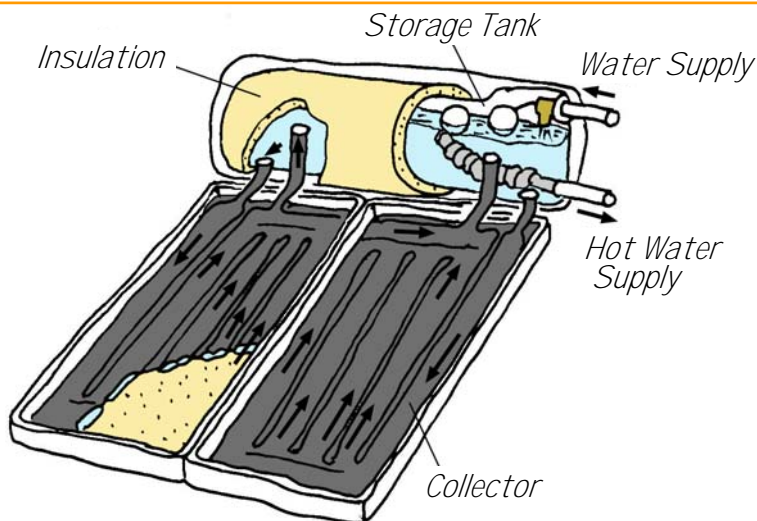
Name	CSC306	CSC308	CSC3710
Storage Tank	300 liter	300 liter	370 liter
Collector area	6 m <sup>2</sup>	8 m <sup>2</sup>	10 m <sup>2</sup>

### Integrated roof-solar collector

For renovated and new-built homes, integrated roof-solar collectors are available.

### ● Standard fixtures





### ●Standard fixtures for all roof-types

250S	○	○	○
250SFD	○	○	○
300S	○	○	○

○	○	○	○
○	—	—	—
○	○	○	○

### ●Specifications

*Storage Tank	① 250S	② 250SF	③ 300S
Dimension (mm)	B 2,004 X L 486 X h 565	B 2,004 X L 541 X h 611	B 2,004 X L 556 X h 640
Tank Capacity	230 L	220 L	280 L
Weight	Storage Tank 32 kg	35 kg	33 kg
	Standard Stand 10 kg	10 kg	25 kg
Material	Inner Tank	UHMW Polyethylene	
	Insulation	Polystyrene foam	
	Tank Case	SUS430 and else*	
	Inlet / Outlet	G 1/2 / Rc 1/2	

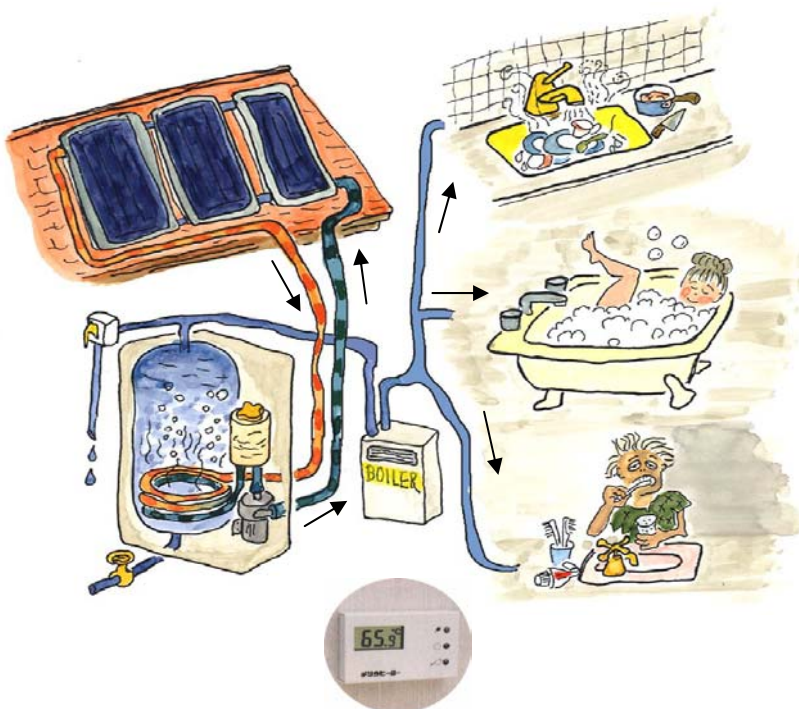
  

*Collector	A. H2m2	B. 1.5m2	C. 2m2
Dimension (mm)	B 2,002 x L 1,022 x h 72	B 1,022 x L 1,582 x h 72	B 1,022 x L 2,002 x h 72
Collector area	2 m2	1.5 m2	2 m2
Weight	Collector 41 kg	33 kg	41 kg
Material	Absorber	Stainless steel SUS 304	
	Transparent cover	Tempered glass	
	Collector case	Stainless steel SUS430 *	

### ●Option



Booster pump



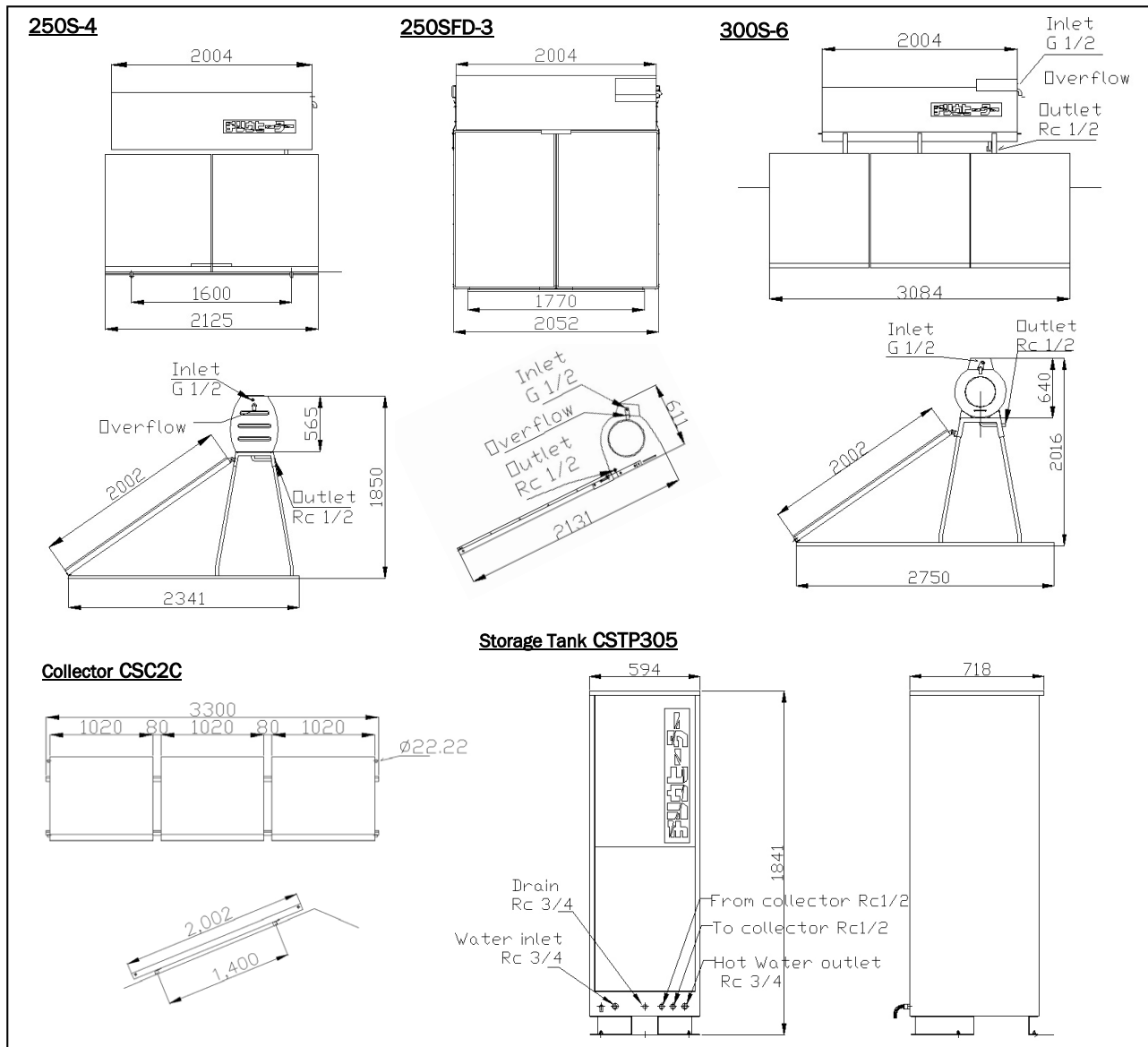
### ●Specifications

Flat plate collector	
Model	CSC2C
Collector area	2.04m <sup>2</sup>
Brine capacity	1.5L
Weight with brine	36.5kg
Dimension (mm)	1,020 × 2,002 × 72
Transparent Cover	3.2mm Tempered glass
Absorber	Aluminum fin with copper tube
Back insulation	Fiber glass
Collector case	Stainless steel & else
In- & Out-let	Copper tube 22.22mm

Storage Tank	
System	Forced circulation
Dimension (mm)	PVC coated steel (594 × 718 × 1,841)
Storage capacity	SUS444 300litter
Maximum operating pressure	294KPa (3kgf/cm <sup>2</sup> )
Inner tank	Molybdenum Stainless steel
Circulation pump	5L/min—13.4meter (60Hz) 150W (60Hz)
Source	AC100V
Supply	(Supply) Rc 3/4 (Outlet) Rc 3/4
Drain	Rc 3/4
Collector connection	Rc 1/2
Weight (full water)	378kg

●Dimension (mm)

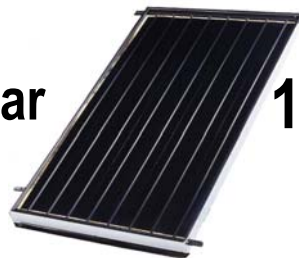


**5 times more powerful**  
Compared to Photovoltaic



Photovoltaic

**1m<sup>2</sup> = 0.13 kW/year**



Solar thermal

**1m<sup>2</sup> = 0.7 kW/year**

Under 1 kW/m<sup>2</sup> solar irradiation, when the temperature of Photo cell or Solar collector is equal to ambient air temperature, Efficiency of the Solar cell is about 10-13% while Efficiency of Solar collector is about 70%.



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