



Split 500L Solar Water Heating System

Test Data

Location : Test Platform (N29°617', E120°861')

Test Date : 2019.04.1-2019.04.30

Equipment :

- 1) 1 pc of 500L Solar Water Storage Tank;
- 2) Solar Collector: GMO2000A X 4pcs, Aperture area:7.4m²
- 3) solar working station, controller
- 4) Other components.

Photos:



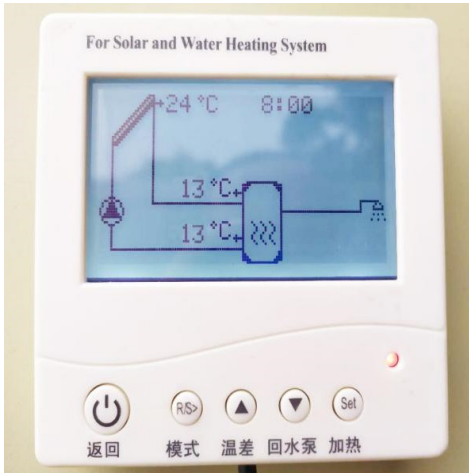


1、 Thermal Performance Test

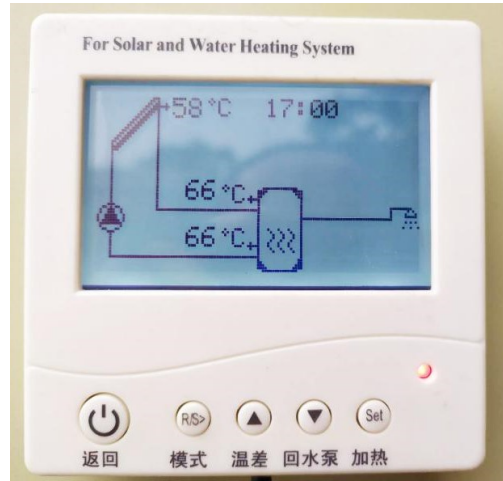
Below test data is got on April 7th., 2019

Test Date	2019.04.7
Test period	07:00-17:00
Initial Temperature	13°C
End Temperature	66°C
Temperature Rise	53°C
Ambient Temperature	21~33°C
Tank Capacity	500L
Total irradiation	22.4MJ/m ² /6.2 kWh/m ²
Total field yield	100.17MJ /27.83 kWh
Collector field yield	6.96kWh
Energy efficiency coefficient CTP (Class I standards : CTP >0.50)	0.60

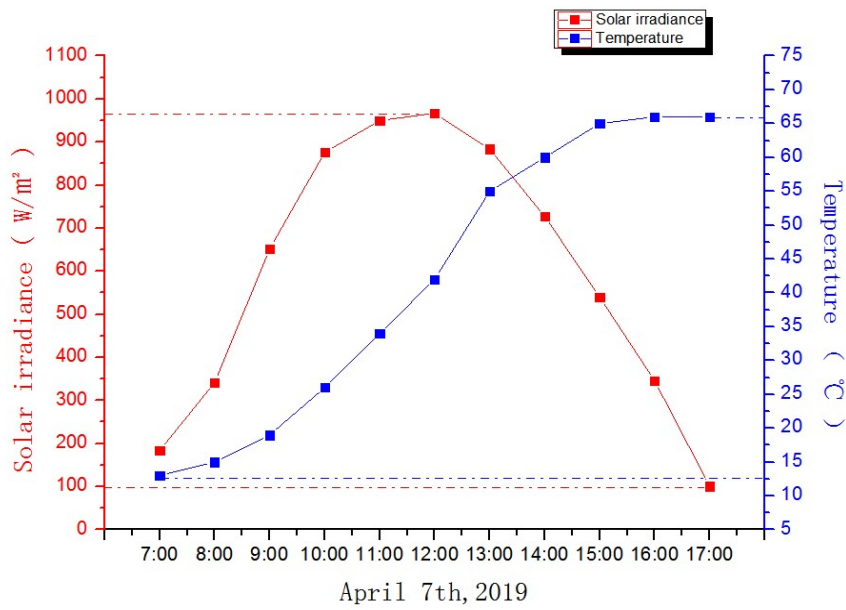
< Chart 1: thermal performance data sheet >



Initial Temperature

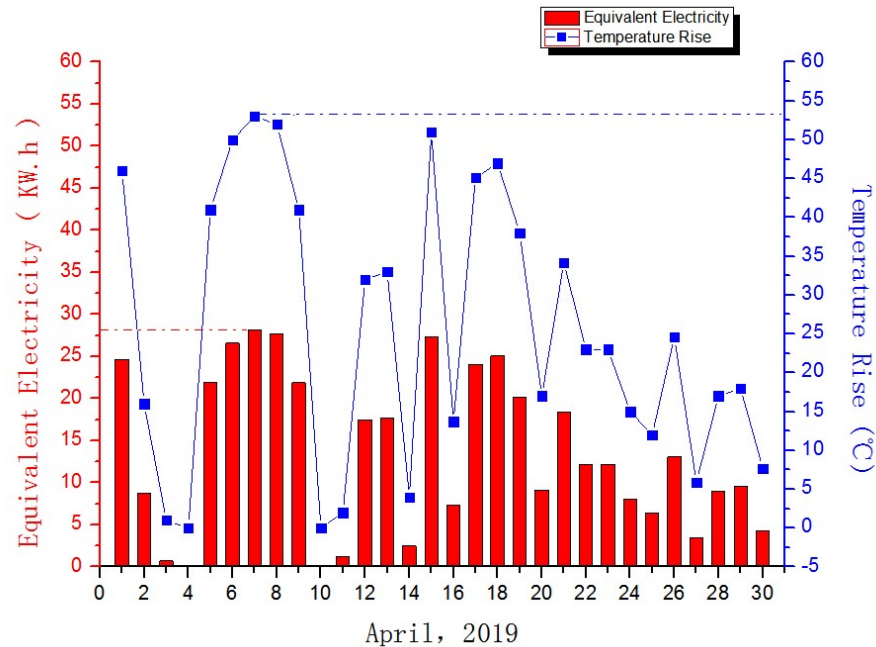


End Temperature



< Graph 1: Curve of radiation quantity, time and temperature of water tank >

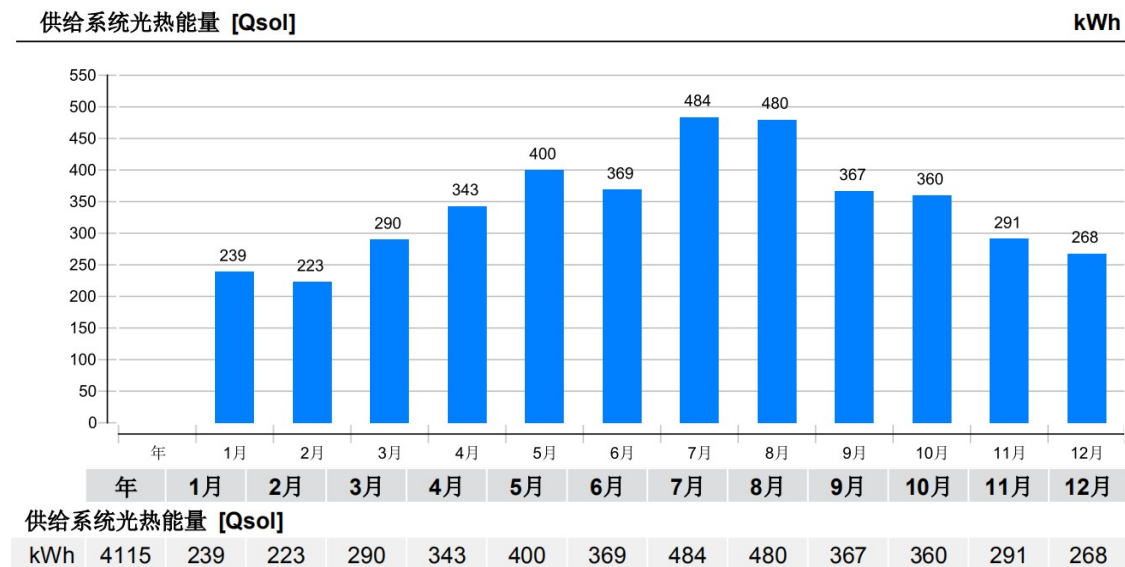
2、 Temperature Rise



< Graph 2: Daily Electricity, Date, Temperature Rise Curve >

3、 Annual Energy Saving (This China Location, China Data. If in Namibia, the data will be far better, because the sunshine is better)

Using Polysun to simulate the operation of the system, and get the result that the system can save energy 4115Kwh/yr.



< Graph 2: Energy saving per month >

4、 Comparison of Energy Saving (Nature Gas, Electricity is the cost in China)

Annual Average Daily Solar Radiation (kJ/m ² .day)	Annual Energy Saving (Estimate)	Compare with other energy source		CO2 Emission Reduction
		Nature Gas (12T) (¥3.5/m ³)	Electricity (¥0.588/Kw)	
12372	4115Kwh	¥1458.00/ USD208.00	¥2416.00/ USD345.00	2323kg/yr