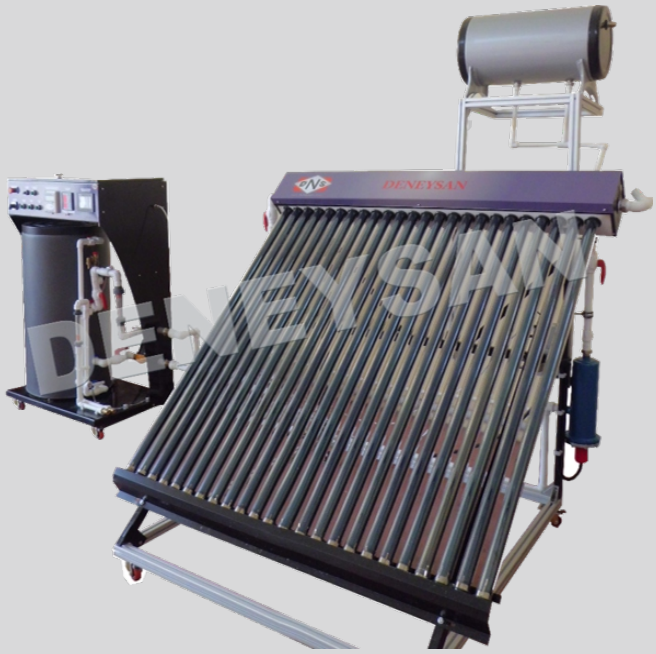
RENEWABLE ENERGY

YE-1020 SOLAR ENERGY SYSTEM WITH VACUUM TUBE TRAINING SET



GENERAL EXPLANATION

It is estimated that Turkey has an average of 2400 hours of sunshine per year and a radiation intensity of 0.15 million calories/cm^2. These data show that Turkey is very suitable for solar energy applications. For this reason, there is a great need for such energy converters.

EXPERIMENTS

1. Instantaneous thermal power in the vacuum tube collector
2. Calculation of collector capacity at different azimuth angles
3. Performing differential temperature control
4. Finding the time-dependent collector thermal capacity change

DIMENSIONS

Boiler
A x B x H : 1000 x 4000 x 1000 mm

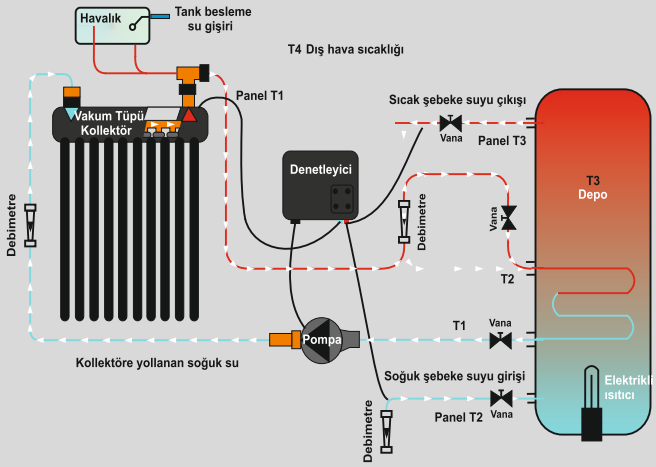
Control Panel
A x B x H : 1380 x 350 x 1390 mm

OPTIONAL FEATURES

- Touch LCD Display
- USB Computer Connection
- Computer Control

TECHNICAL SPECIFICATION

The system consists of two borosilicate glass tubes which are intertwined. Heat loss is reduced to a minimum thanks to the vacuum between the two tubes. Al-N / Al is coated with the external spray method of the inner tube. Thanks to this selective surface, 93% of the rays coming from the tube are perfectly absorbed and turned into heat. Due to the intake of air between the two tubes, the heat loss from the inner tube is negligible. It's done in the same way as thermos in the house. The solar energy absorpted by the selective surface passes through the water in the inner tube. This is called natural circulation and the same phenomenon continues in every tube.



TECHNICAL DETAILS

- Single serpentine boiler
- Vacuum glass tube
- 3-stage circulation pump
- Closed expansion tank
- Rotameter type flow meter
- Temperature measurement from different points

PACKAGE INCLUDED

Device, device cover, 1 printed experiment report, circuit diagram and product catalog