

Product Name :
Geothermal Energy With Two-Well System

Product Code :
CHINAELABC3730003



Description :

Geothermal Energy With Two-Well System

Technical Specification :

The scope of geothermal energy is the study and use of the heat and the temperature distribution in the ground. A near-surface geothermal plant uses the thermal energy stored below the earth's surface. Using a two-well system, for example, thermal energy is extracted from the near-surface groundwater for heating purposes.

It demonstrates the operation of such a two-well system.

Learning objectives/experiments

Fundamentals of geothermal use

Operating behaviour of a two-well system

Hydraulic properties of the ground

Determination of the usable heat capacity

Fundamentals and energy balance of a simulated heat pump

Specification

Demonstration and operation of a two-well system for using geothermal energy

Temperature-controlled groundwater circuit

Height-adjustable overflows for adjusting the groundwater flow

Adjustable flow rate of the pump in the production well

Measurement of temperature and flow rate to determine the transmitted heat capacity

Multi-tube manometer for visualising the groundwater levels

Supply of the working medium via laboratory supply or the water chiller

Calculation of the transmitted heat capacity and simulation of the energy balance of a heat pump



Engineering Lab China