

**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**