# HEAT TRANSFER

# HT-332 NATURAL AND FORCED HEAT TRANSPORT TRAINING SET



#### **GENERAL EXPLANATION**

This training set shows natural and forced convection heat transfer mechanism. Flat plate type and bar type heaters are available.

# **EXPERIMENTS**

- 1. Calculation of energy balance with natural and forced convection in different types of heat exchangers
- 2. Change in total heat transfer coefficients depending on the velocity in different types of heat exchangers
- 3. Calculation of planery thermal conductivity value for different plate heat exchanger at different speeds
- 4. Calculation of thermal efficiencies for natural and forced convection of different types of heaters

### **DIMENSIONS**

A x B x H : 600 x 600 x 1790 mm

# **OPTIONAL FEATURES**

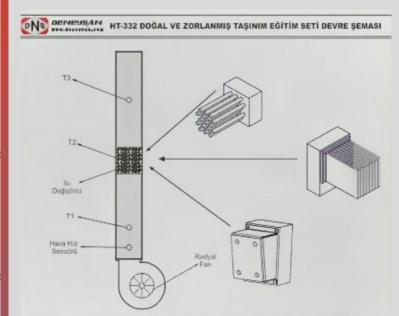
- Touch LCD Display
- USB Computer Connection
- Computer Control

#### **PACKAGE INCLUDED**

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

# **TECHNICAL SPECIFICATION**

The device uses air as the fluid type. It transfers the necessary heat energy to the system input fluid through the lamellar resistance in the air duct, simulating the excess heat to be transformed. Air is sent through flat plate, multi plate, rod type heat exchanger by natural flow or by fan running with 350m³/h. The fan's flow rate can be controlled and the fan speed can be measured. The temperature sensors work directly with the air. At the same time, the values of the fan, resistance and temperature sensors can be displayed digitally.



#### **TECHNICAL DETAILS**

- Heating and circulation system
- Radial fan
- Lamellite type resistance
- Hot wire type air speed converter
- 3 temperature sensors
- Heat exchanger and features
- Flat plate type
- Multiple plate type
- Rod type