

ZM6125 Computerized Air Conditioning Trainer



I Introduction

This trainer is designed for studying of the thermodynamic transformations the air undergoes when crossing the various stages of a modern air conditioning unit that serves a room where temperature and relative humidity must be checked. Measuring air temperature and humidity in different points enables to analyze air cooling, heating, humidification, dehumidification. Moreover, some simulators of room and outdoor temperature and of room humidity are included to verify the logic of control system in all the conditions that can occur in an air handling unit. The equipment is also provided with sensible and latent heat generators installed in the test room that can be used to vary the thermal load in the same room and to check the response of the control system. The controller includes the functions of calibration and control, it enables student to enter the points of control system, such as set points, measurement values, etc.... via a PC (demand), so that any alarm along the circuit can be detected and a different management of the system can be programmed.

II Training Program

Using the psychrometric chart to study the transformations the air undergoes in the different sections of an air handling unit, that is: sensible heating, steam humidification, cooling and dehumidification.

Assessing the heat balances corresponding to the different sections of the air handling unit

Analyzing the operation of temperature and humidity controllers for AHU

Direct and reverse acting proportional control

ON/OFF step control

Dampers temperature control

Checking the behaviour of control system versus thermal loads

Supplied with:

English General refrigeration manual
English Theoretical-experimental handbook

Note :

Due to keeping innovation,
the specification and
Machine pictures or color
are subject to alteration
without notice!