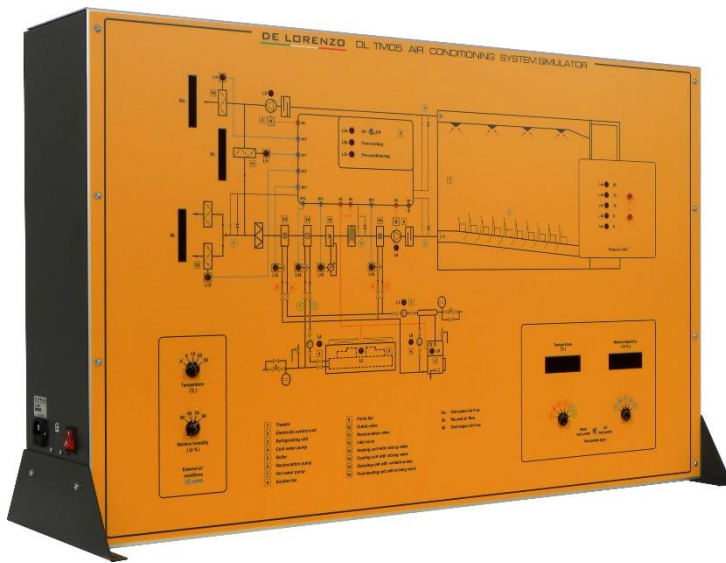




AIR-CONDITIONING SYSTEM



DL TM05

The simulator allows the study, the performing of experiments and the troubleshooting for the following system:

- Full air, single duct, constant capacity air-conditioning system, for single zone with regulation on the heating, cooling and post-heating batteries

This system is reproduced on the panel, through a colour representation which allows a complete analysis of the fluid circuit, of its components and of the electrical/electronic circuit for control and regulation.

TRAINING OBJECTIVES

It is possible to simulate the behaviour of components and systems, on the basis of the operating conditions which can be monitored directly on the panel or through Personal Computer by teacher and students.

The Personal Computer constantly keeps under control the simulation in progress and displays its behaviour through analog and digital signals and meters; in this way the student, through measurements and tests, can go on with the troubleshooting.

Dimensions: 0.66 x 1.04 x 0.35 m.

Net weight: 16 kg.

Average training hours: 10 h.

The system is supplied with a Student Navigator software that allows students to perform their learning activities through a Personal Computer, without the need for any other documentation. Moreover, the Student Navigator is provided with an interface to the Laboratory Management software.

TECHNICAL DESCRIPTION

The full air, single duct, constant capacity air-conditioning system, for single zone with regulation on the heating, cooling and post-heating batteries is composed of the following main elements:

- Air treatment unit (ATU) complete with heating, cooling, humidifying and post-heating batteries
- Air duct, complete with inlet fan, recovery fan, motorized shutter for ejecting, mixing and renewing the treated air
- Boiler and refrigerating unit for the production of the hot and of the cool fluid to be used in the ATU batteries
- Electronic station for data recording concerning temperature and humidity and for the subsequent adjustment and opening of the actuators and devices for the air-conditioning
- Ambient to be air-conditioned composed of a show hall (theatre, cinema), provided with system for air delivery from the bottom and its recovery from the top
- Possibility to simulate the external temperature and humidity conditions
- Possibility to simulate the crowding of the hall and, consequently, the relevant thermal and sensitive loads
- Possibility to display the percentages of the ejected, recycled and renewed air

- Possibility to display the temperature and the humidity of the treated air, in various points of the system
- Possibility to display the temperatures of the hot and cool fluid on the batteries of the ATU