

DOMESTIC AIR-CONDITIONING SYSTEMS



DL TM07

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

- window single block air-conditioner
- portable air-conditioner, split type
- fixed air-conditioner, split type

These systems are 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 behavior 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 portable air-conditioner, split type, consists of the following main elements:

- single-phase motor compressor
- condenser with ventilation through single-phase electric motor
- evaporator with ventilation through single-phase electric motor
- capillary pipe
- regulation thermostat
- fan speed internal selector
- main switch
- switch for compressor insertion
- single-phase motor-driven pump for condensate evacuation
- possibility to simulate the internal and external temperature
- possibility to display the temperature values of the treated air

The fixed air-conditioner, split type consists of the following main elements:

- single-phase motor compressor
- condenser with ventilation through single-phase electric motor
- evaporator with ventilation through single-phase electric motor
- capillary pipe



The window single block air-conditioner consists of the following main elements:

- single-phase motor compressor
 - condenser and evaporator with ventilation through only one single-phase electric motor
 - capillary pipe
 - regulation thermostat
 - fan speed selector
 - main switch
 - switch for compressor insertion
 - possibility to simulate the internal and external temperature
 - possibility to display the temperature values of the treated air
- regulation thermostat
 - fan speed internal selector
 - main switch
 - switch for compressor insertion
 - possibility to simulate the internal and external temperature
 - possibility to display the temperature values of the treated air