



MODULE FOR THE STUDY OF INDUSTRIAL AIR-CONDITIONING DL TMACM-IAC



This trainer is designed for the complete and exhaustive study of thermodynamic transformations the air undergoes when crossing a three-section central air-conditioning unit.

TECHNICAL FEATURES

The trainer includes the following components:

- Tabletop aluminium structure,
- Air conditioning unit including:
 - ◆ duct with transparent walls,
 - ◆ variable speed axial fan,
 - ◆ cooling and dehumidification battery,
 - ◆ humidifying section,
 - ◆ heating battery,
 - ◆ temperature and relative humidity sensors,
 - ◆ anemometric sensor.
- Colour printed schematic diagram of the hydraulic circuit,
- Thermostatic expansion valve,
- Cocks for an easy connection (with the basic trainer **DL TMACM-RS**),
- Specific supervision software.



TRAINING PROGRAM

With this trainer, the students can perform the following practices:

- The air psychrometric chart:
 - ◆ determination of absolute humidity,
 - ◆ enthalpy,
 - ◆ specific volume,
 - ◆ dew point.
- Transformations of the air due to variations of temperature and/or of relative humidity,
- Heating, humidification, cooling and dehumidification processes and heat balances,
- Using the air recirculation to save energy,
- Air quality and Air handling with mixing and filtration,
- Thermohygrometric comfort conditions of room occupants,
- System performances far from design conditions,
- Determining the airflow in ducts as speed varies,
- Fault insertion tests included (with the basic trainer **DL TMACM-RS**).