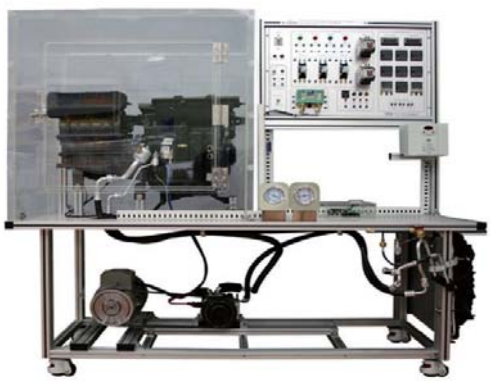
model:Car AC demonstration-GTAC311239

Car AC Demonstration Unit

* Vehicle compressor, condenser, expansion valve, evaporator, blower, cooling fan, unit, control panel displaying refrigerant flow chart, etc. is installed to enable simulation of automobile air conditioner.
* The car air conditioner is configured to operate semi-automatically so that the experiment is possible.
* The heating system automatically circulate hot water by controlling the indoor temperature using a separate hot water automatic control tank.
* As with the actual vehicle operating conditions, the operation of all devices and sensors enable measurement and experimentation of the entire system, such as the refrigerant circulation process, and temperature and pressure related to cooling/heating.
* Theory, maintenance, inspection and practical tests of the system such as various diagnosis, air bleed, refrigerant charge, disassembly and maintenance is possible.
* The refrigerant used is 134a, and each part is configured accordingly.
* The compressor is driven by a motor, and it is possible to adjust the RPM using a high-performance inverter and to measure the speed.
* The graphic module that can see the flow chart of the experimental device is able to control RPM and hot water tank temperature.
* The device is constructed so that accurate performance data can be obtained by dividing the interior part and the engine part into separate spaces.
* The main body of the equipment is made of aluminum or metal, and wheels should be attached to allow movement.
* When configuring the system using the control program, it is possible to automatically save data, automatically operate the P-I line and data the machine status, and to analyze the stored data, it should be possible to review the program.
* Mechanical unit
  - · Compressor: 3hp or more (motor driven type, SPEED CONTROL INVERTER)
  - · Capacitor: 630 × 340
  - · Radiator: 720 × 450 × 50
  - · Fan motor: 12V, 350 × 350
  - · Hose pipe: 2ea
  - · Expansion valve
  - · Evaporator
  - · Receiver driver: Φ60 × 210
  - · Automatic hot water tank: W300 × L300 × H300, including heater over 5kw
  - · Water circulation pump: 100W, head 4.5M, pumping volume: 35 ℓ /min
  - · Pressure gauge: 2point
  - · Temperature sensor: 7point
  - · Graphical control showing refrigerant flow
  - · Compressor drive motor (over 3hp): 220V × 60hz, inverter included
  - · RPM gauge



* Data board
  - · Refrigeration Trainer Control Board
  - · Removable Micro controller Module (Replacement type)
  - · 16-Channel Sensor interface(Option : Temperature, Pressure, Flowmeter, Airflowmeter, Ampere :
  - · 16-Channel power relay on/off control.
  - · 10/100 Ethernet Interface(RJ-45) (Option : Wi-Fi, Bluetooth, Zigbee, USB, RS-232, RS-485, RS-422, CAN)
* Software program
  - · Network control system using ethernet communication.
  - · Machine parts are controlled by using a switch of the program and data values of the sensor by setting the control condition.
  - · Mechanical diagram displays the sensor values and converter unit option.
  - · Output of the sensor data in the graph and save files and print output.
  - · Mechanical parts diagram displays the operation status of motion animation.
  - · Output of the sensor data in the mollier diagram graph and save image files and print output.
  - · The Mollier diagram graph simulated sensor data, and to compare the measured sensor data analysis
* size is around, (LxWxH) - 180 x 720 x 185cm
* At least 2 years service warranty