HEAT PUMP
Mod. F-PC/EV

45-A

DESCRIPTION

This demonstration model shows the operation of a vapour compression refrigerator or heat pump.
The equipment includes a compressor, evaporator, expansion device and condenser. It can be used as water-water heat pump. It also includes a multimeter for detecting the electric parameters, and two thermometers for measuring the temperatures in the two tanks.
These components are connected, via copper pipes, in a closed circuit. The evaporator and the condenser consist of spiral wound copper pipes immersed in two transparent vessels filled with liquid (water and glycol, in the evaporator, and water in the condenser). Two pressure gauges indicate the pressure levels attained in the two heat exchangers.
A switch for protection against overpressures cuts off the power supply of compressor motor as soon as pressure reaches the threshold of 15 bars.
Arranged for PC data acquisition (optional kit required)

TRAINING PROGRAM

- Studying the operation of a heat pump system
- Plotting the refrigeration cycle on P-h chart and determining the efficiency of refrigeration cycle.

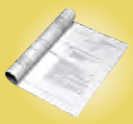
TECHNICAL SPECIFICATIONS

- Painted framework of stainless steel
- Hermetic compressor
- Evaporator and condenser coils
- Tanks of transparent material for evaporator and condenser
- Capillary tube for lamination of liquid
- Filters and sight glasses
- 2 (high and low) pressure gauges
- 2 thermometers
- Digital multimeter
- Pressure switch
- Circuit breaker

Power supply: 230 Vac 50 Hz single-phase - 150 VA
(Other voltage and frequency on request)
Dimensions: 50 x 35 x 52 cm
Weight: 30 kg

SUPPLIED WITH

THEORETICAL - EXPERIMENTAL HANDBOOK



OPTIONAL

Kit for data acquisition via PC including:

- **EVLAB DATALOGGER mod. EVS-EXP/EV** including **SOFTWARE EVLAB WORKSPACE mod. SW-F-PC/EV**

- **PRESSURE/POWER MONITORING KIT mod. EVS-PCK/EV**
consisting of:
- high pressure transducer 0-30 bar
- low pressure transducer 0-10 bar
- electric power transducer 0-10 kW

- **2 temperature sensors mod. EVS-15/EV**

- **PERSONAL COMPUTER**

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