



ZM6128 Air Conditioning Trainer With Heat Pump

Note :

Due to keeping innovation, the specification and Machine pictures or color are subject to alteration without notice!



I Introduction

This trainer has been designed specifically for educational aims so that students can delve into the study of the operation of an air/water heat pump and of its components such as cycle-reversing valve and thermostatic expansion valve. Furthermore students can examine the use of an intermediate fluid for the transport of thermal or refrigerating power from the production site to the place of use. Supply software which can monitor voltage, current, frequency, power, power factor, pressure, flow, etc, they can be displayed on PC in real time, and can print report.

II Training Program

Plant starting and safety devices intervention checking
Studying the operation of a heat pump
Studying the operation of a cycle-reversing valve
Studying the operation of a thermostatic expansion valve
ON/OFF control
Examining the system behaviour versus the variation of:
- Season
- Air flow at condenser/evaporator
- Air flow at air/water exchanger
Plotting the refrigeration cycle on refrigerant pressure-enthalpy chart
Data acquisition and calculation of:
Exchange surfaces
Heat balances corresponding to evaporator, condenser, compressor
Refrigerant mass flow
Volumetric compressor efficiency
Thermostatic valve superheat
Heat balances on air side
Heat balances on air side

Supplied with:

English General air-conditioning manual
English Experimental handbook