

Heat Transfer Training Systems

Educational Training Equipment for the 21st Century

Bulletin 682C

H-6820

Dual Heat Pump Demonstrator

Purpose

The Hampden **Model H-6820** Dual Heat Pump Demonstrator demonstrates the fundamental aspects of a heat pump system. This system, which utilizes both air and water as a heat source, allows the student to measure the temperature and pressure at critical points throughout the cycle to better understand the various processes that occur in the heat pump system.

Description

The Hampden **Model H-6820** Dual Heat Pump Demonstrator is a table-top unit consisting of a water cooled evaporator with water flowmeter and flow control valve, forced air evaporator, condenser with water flowmeter, flow control valve, open compressor, trunnion mounted motor, temperature wells, refrigerant flowmeter, watt-hour meter for recording watts input to the compressor motor and pressure gauges.

Services Required

Electrical: Single-phase 120V AC, 50/60Hz

Specifications

Base and Control Panel:

- Steel, finished in instrument tan texture and white enamel

Feet:

- Non-mar

Compressor:

- 1/3 HP Open type - belt driven

Motor:

- 1/2 HP Trunnion mounted, fitted for torque scale

Metering Devices:

- Thermostatic Expansion Valves (TEV)



MODEL H-6820 Dual Heat Pump Demonstrator
Dimensions: 30"H x 48"W x 28"D
Shipping Weight: 300 lbs.

Refrigeration System Accessories:

- Filter Drier
- Sight Glass
- Flowmeter
- HI-Temperature cutout
- HI-Pressure cutout
- High Pressure Gauge
- Low Pressure Gauge

Condenser:

- Water cooled

Evaporators

- Air cooled
- Water Cooled

Nomenclature:

- Silkscreen, black KEM enamel

Control Panel Accessories:

- Circuit Breaker
- Pilot Light
- Power Cord
- Water Flowmeter Control (2)
- Watthour Meter
- Thermometers (9)
- Torque Scale
- Evaporator Transfer Valves

Thermometer Wells:

- Nine

Manuals:

- Operating Instructions
- Enthalpy Chart for Refrigerant

Computer Data Logging

This feature adds all specified temperature points, pressure points and water flow points into the system. One interface package consisting of National Instruments I/O modules and LabVIEW® software and templates are provided for interfacing with a PC computer through the USB port.

Computer is included.

Specify **MODEL H-6820-CDL**



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All Hampden units are available for operation at any voltage or frequency

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