

WATER CHILLER TRAINER 812



Year 1
study

Features

- Fully Operational Water Chiller With Cooling Load
- Evaporator Pressure Regulator to Demonstrate Non-Freeze Cooling
- Optional Data Acquisition Available.
- Optional Student Tool Kit, Test and Service Equipment

Description

The Water Chiller Training Unit 812 is a fully operational, water chiller, which enables the student to adjust and investigate a typical water cooler operating under load, either with or without evaporator pressure regulation. The cooling of pure water requires that the evaporator surface temperature does not fall below 0°C or the system will freeze and may result in damage. This unit allows students to safely explore the parameters affecting evaporating pressure without danger to the operator or equipment. The unit is mounted on a steel frame with stainless steel panels and comprises an hermetic compressor with water cooled condenser, liquid receiver, water cooling evaporator with adjustable pressure regulator. A pump circulates the cooled water at an adjustable flow rate through a tank with individually switched heaters that load the refrigeration system. Instrumentation includes condenser and suction pressure gauges, evaporator pressure (service gauge), digital temperature indicator with multi-way selector switch, evaporator and condenser flow rate measurement, optional refrigerant flow meter and optional computerised data acquisition system for all parameters including compressor current. All the controls and the high and low-pressure switches are adjustable by the student to enable advanced studies in the control of vapour compression refrigeration equipment.

Related Laws/Applications

- Water chiller
- Refrigeration
- Air conditioning

Technical Specification

- Hermetic compressor
- Water-cooled condenser.
- Liquid receiver
- Adjustable condenser pressure regulator
- Water-cooling evaporator
- Thermostatic expansion valve
- Adjustable evaporator pressure regulator with detachable service gauge.
- Suction accumulator.
- Water tank with individual switchable loads of 1kW, 1kW and 0.5kW
- Water circulating pump with flow control.
- Instrumentation includes:
 - - Digital temperature indicator with 10 way selector switch.
 - - Condenser and evaporator water flow meters.
 - - Condenser and suction pressure gauges and detachable evaporator pressure gauge.
 - - Optional refrigerant flowmeter.
- Control panel including:
 - - Overload protection
 - - Contactor
 - - Earth leakage protector
 - - Optional computerised data acquisition system.

Recommended Ancillaries

- TKB
- TSE

What's in the Box?

- 1 x 812
- Reinforced supply & drain hose
- Tools
- 1 x Anti-freeze
- Instruction manual
- Packing list
- Test sheet

Weights & Dimensions

- Weight: 164 kg
- Length: 1340mm
- Width: 640mm
- Height: 1630mm

Essential Services

- 15 Amp, 220-240 Volts, Single Phase, 50Hz (With earth/ground).
- 30 Amp, 110-120 Volts, Single Phase, 60Hz (With earth/ground).
- Cooling Water/Drain: Up to 3 litres/minute at 25m head and a drain to receive a similar volume flow.

Ordering information

To order this product, please call PA Hilton quoting the following codes:
812/230
812/115

All brand and/or product names are trademarks of their respective owners. Specifications and external appearance are subject to change without notice. The colour of the actual product may vary from the colour shown in the brochure.

Copyright © 2018 P.A. Hilton Limited. All rights reserved. This technical leaflet, its contents and/or layout may not be modified and/or adapted, copied in part or in whole and/or incorporated into other works without the prior written permission of P. A. Hilton Limited. Hi-Tech Education is a registered trade mark of P. A. Hilton Limited.

COUNTRY OF ORIGIN - UK WARRANTY PERIOD - 5 YEARS