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Installation Instructions

Ecologix CHCM Commercial Air-to-Water Chillers & Pump Module CHCM24-6, CHCE24-6, & CHPSR4-15HP

ECOLOGIX HEATING TECHNOLOGIES INC.

90 Monarch Road.
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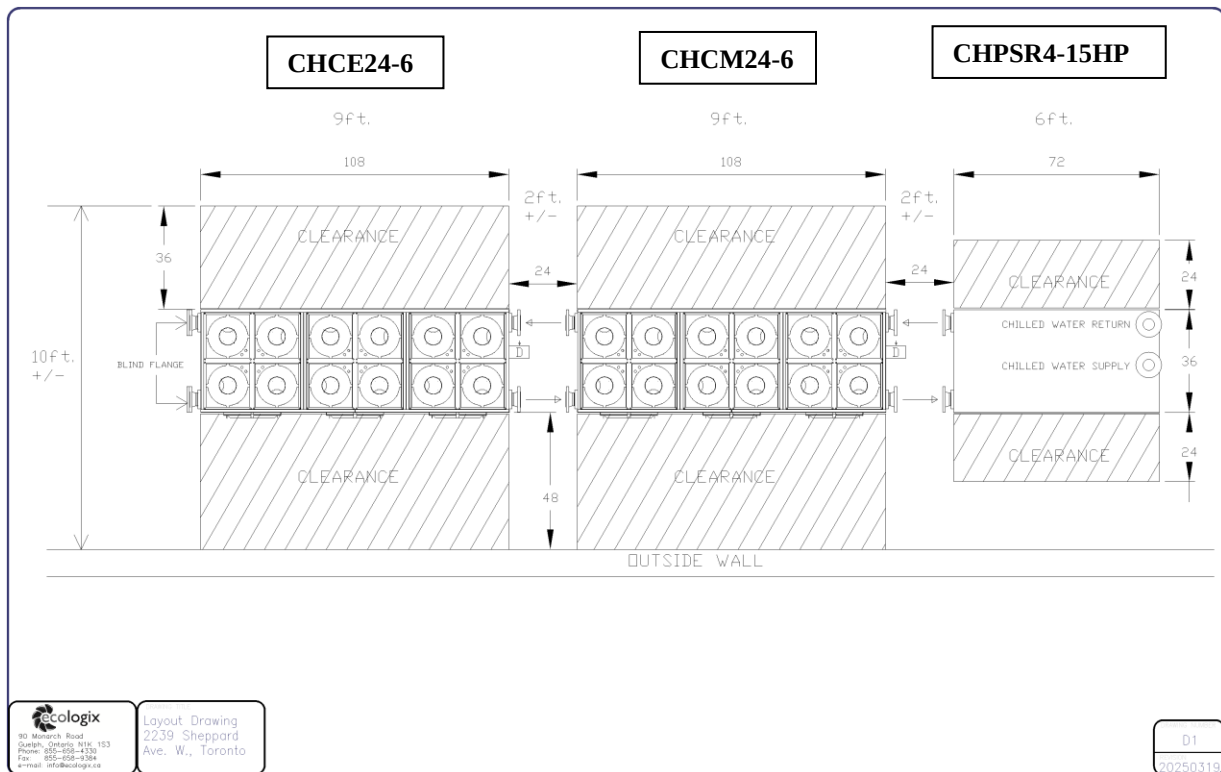
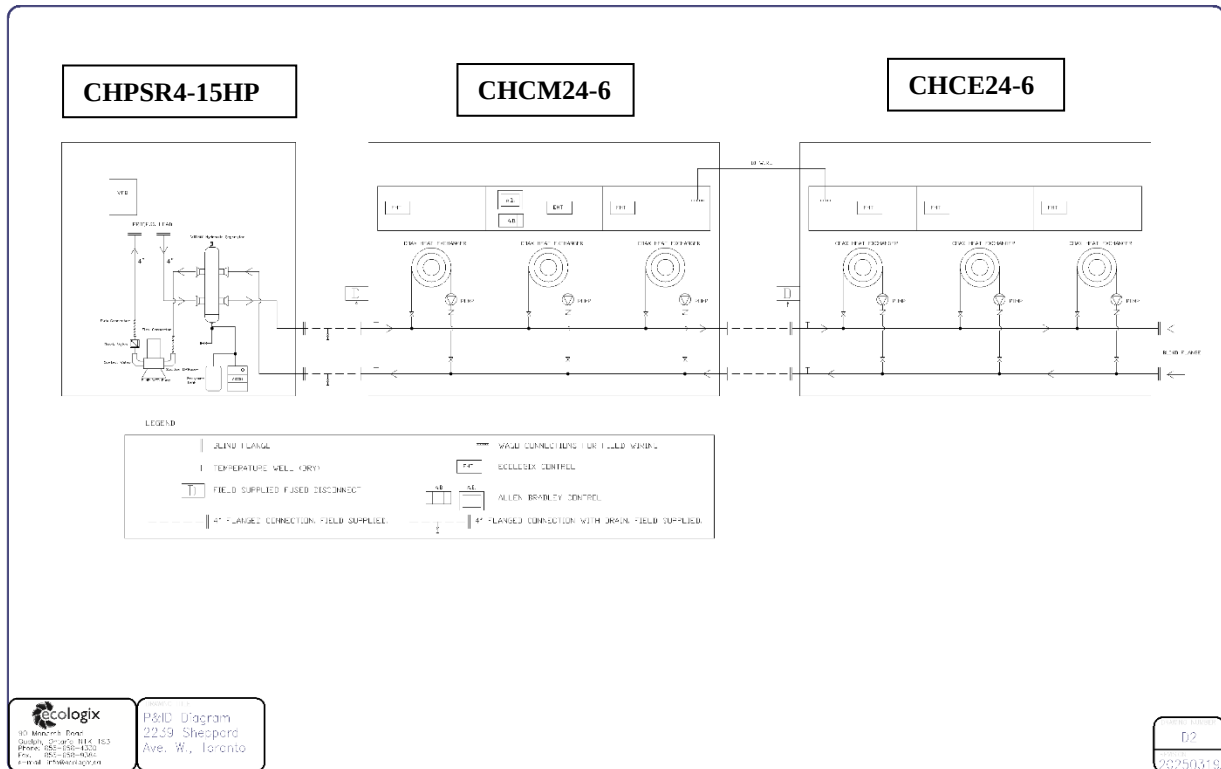
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P&ID & SHOP LAYOUT DRAWING



OVERVIEW

- The CHCM24-6 is the main unit that has the Allen Bradley system controller and the 1st-stage/digital compressor unit.
- The CHCE24-6 is the expansion unit consisting of three (3) 8-ton sections. The staging controls are supplied by the Allen Bradley controller in the main chiller unit.
- The CHPSR4-15HP pump module has a VFD to control the large 15hp system pump to supply a constant pressure (40PSI) to the process loop. When not in use, the disconnect on the VFD can be shut off if desired. Refer to Grundfos VFD manual for adjusting settings if required.

INSTALLATION

- Install each piece of equipment 2ft apart minimum.
- Refer to the engineer's building layout drawing for exact location of equipment and installation details.
- Refer to the Ecologix layout drawing for order of equipment and required clearances. Note that the CHCM24-6 (Main unit) MUST go between the CHPSR4-15HP (pump module) and CHCE24-6 (add-on unit).
- Shim the CHCM24-6 & CHCE24-6 cabinets so that the doors function properly.
- Water connections between units can be rigid or flexible steel or stainless 4" DIA pipe.
- The main 600VAC 3PH electrical connections for the CHCM24-6 & CHCE24-6 chillers are to be made in the bottom electrical box in the lefthand side of each unit when facing the access doors. Punch an appropriate size hole in order to bring the main power feed into the bottom electrical box section for each chiller unit. Note that the provided terminal blocks for the power connections are bottom fed. Refer to the rating plate to ensure properly sized wires are used.
- Install an external disconnect for each chiller unit within eyesight to the unit. Note that there are separate disconnects for each section internal to the chiller for servicing purposes if required.
- The main 600VAC 3PH power connection to the CHPSR4-15HP pump module is made at the VFD for the pump power and control. Refer to the provided Grundfos manual for more detail. Note that an external disconnect is not required for this unit because the VFD has one built in.
- Run two (2) sets of 7-wire standard thermostat wire (minimum) between CHCM24-6 and CHCE24-6 from the right upper electrical box of CHCM24-6 to the left upper electric box of CHCE24-6 for controls. Note that only 6 control wires between the units are currently required. The second 7-wire set is for possible future use. Punch an appropriate size hole in each cabinet for the control wires and route them through one of the provided 7/8" DIA holes in the bottom of the upper electrical boxes. Note that the Wago terminals are labelled and connections are to be matched (e.g. HP4 ON to HP4 ON).

COMMISSIONING

- Be sure to properly purge the water pipes in all sections and the main headers of air prior to powering on and running the chillers.
- The fan speeds for sections 2-6 are factory set to a fixed speed but can be adjusted on one of the Ecologix control boards. Please contact Ecologix for technical support if required.
- Note that each section has a manual reset high pressure switch. If tripped, this switch is located on the refrigerant discharge line near the condenser coil inside of the cabinet. A red LED light will be ON if this switch is tripped on one of the Ecologix control boards in the upper electric box. Press the button on the switch to reset the alarm and investigate the cause of the issue.

CLEANING AND CARE

- Each section of the chillers requires two 20" x 25" x 1" filters at the air intake of the unit. Be sure to inspect these regularly and changed when dirty. A filter hook is supplied to assist with pulling up the filters if ductwork is connected to the air intake flanges.

WARRANTY

This product is warranted by Ecologix Heating Technologies Inc to be free from defects in materials and workmanship that affect product performance under normal use and maintenance within the applicable periods specified below. Replacements furnished will carry only the un-expired portion of the original warranty.

Two-Year Parts

Ecologix Heating Technologies Inc will provide replacement parts for **ANY part** that fail within two years of purchase, subject to the **terms** below.

Five-Year Parts

Ecologix Heating Technologies Inc will provide replacement parts for any **heating coils, cooling coils, compressors, Allen Bradley controller, cabinetry and piping** that fail within five years of purchase, subject to the **terms** below.

Terms

- ❖ Reasonable proof of original purchase date must be provided in order to establish the effective date of the warranty, failing which, the effective date will be based on the date of manufacture plus thirty days.
The warranty does not cover failure or damages caused by:
 - improper installation or operation
 - accident, abuse or alteration
 - operation of device at temperatures or pressures outside of the rated capacities
 - lime or scale deposits
 - corrosive operating environment
 - equipment moved from original installation location
- ❖ Replacements furnished under this warranty will be F.O.B. Ecologix Heating Technologies Inc product distribution points in the United States and Canada. They will be invoiced at regular prices. The account will be credited the full amount when the defective part is received by Ecologix, examined and approved as a valid warranty.
- ❖ Warranty applies to the original purchaser, but may be transferred to another owner provided the equipment is not moved from the original installation site.
- ❖ This warranty does not apply to labour, freight or any other cost associated with the service repair or operation of the product.
- ❖ Ecologix shall not be liable for any direct, special, incidental or consequential damages caused by the use, misuse, or inability to use this product.
- ❖ Ecologix is under no legal obligations to rectify, including but not limited to, lost profits, downtime, good will, damages to, or replacement of equipment and property
- ❖ Purchaser assumes all risk and liability of loss, damage or injury to purchaser and purchaser's property and to others and their property arising out of the use, misuse or inability to use this product.