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CHCM24-6 Packaged 24 TON Modulating Ducted Chiller Unit

DESCRIPTION and DETAILS:

- Self-contained fully modulating chiller system with internal sensors and controls to maintain accurate temperature control without the need for hot gas by-pass.
- R410a Refrigerant, hermetically sealed, Copeland scroll compressors.
- 4" stainless steel primary header system built in, complete with internal pumps
- High efficiency ECM backward curved motorized fans.
- Units can be ducted to outside for heat rejection. Internally regulated fans can handle inlet air temperature from -20C to +30C and up to 0.5" w.c. for ductwork
- Electronic control manages the main CHCM unit and up to two CHCE expansion units without additional controls.
- Access to the unit for servicing is from the three access doors on the front face of the unit. All three door have keyed access latch so the unit can be secured to avoid unwanted access if desired.
- Each compressor stage is handled by its own control within the section where it is located. All units are handled by a master control located in the centre console of the CHCM unit.
- The CHCE units have their own individual compressor control and monitoring, similar to the CHCM unit, but are managed by the CHCM master control.
- An Allen Bradley control has been added to replace the proprietary main control for capacity management and monitoring.
- The A-B control comes complete with Ethernet connection for connection to a local SCADA system. Display and input screen is provided for local monitoring.
- Three stages of compressor for both the main and expansion unit, with digital control on the main unit to provide 30:1 turndown. (60:1 turndown available if matched to a CHCE expansion chiller unit.)
- One or two expansion units can be added to a main unit for up to 72TONS of chilling.
- Post painted galvanized steel cabinet for long life even in wet environments.
Powder coat paint color is Grey Beige, RAL 1019
- Anchoring of unit to floor is not required, but can be fastened to the floor or pad. if desired, by bolting angle brackets to the C-channel frame beneath the unit.
- Unit has forklift slots to allow positioning of the unit once it is lifted from the shipping skid. No other lifting points are provided.
- Unit is designed to be operated either ducted or unducted. Please allow six feet of clear space above the unit to allow for future ductwork to be provided. Refer to the attached layout drawing "D1" for horizontal space allowances
- When ducting the unit to outside, a common supply plenum and common return plenum should be used to connect the three duct paths for each unit. Duct each three-section unit separately. Backdraft dampers are

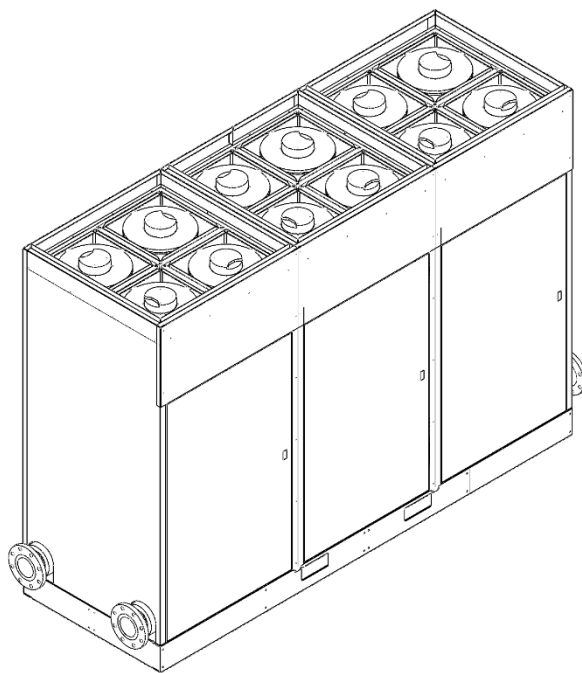
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required between the three supply takeoffs when using a common supply air plenum. Consult the factory for details.

- When laying out the units relative to each other, the CHCM and the CHCE units can be placed in any order.
- The supply and return sensor of the main control may need to be relocated as per the installation instructions provided, depending on the final layout of equipment. The supply and return heaters have dry wells at each end of the unit to facilitate easy relocation of these sensors. Refer to start up notes in the installation instructions or consult the factory for details.
- It is best to layout the unit in a straight line but the units can be linked with up to 20 feet of piping between units for different orientations.
- Pump packages are specified as right hand or left-hand location, depending on which end the pump package is to be installed relative to the CHCM and CHCE modules. A left-hand pump module has the pump to the left of the units when facing the front of the units (access door face).
- Pump packages can be reversed in the field, but it is best to order the module as a left or right unit for the layout desired, to minimize field changes to the unit after arrival on site.
- The disconnect shown on the P&ID "D2" is not integral to the unit and is not provided with the unit. The electrical code requires a separate disconnect to be provided by the electrician. The locations shown for the disconnects on the P&ID "D2" are a suggestion only.
- The details provided on this submittal are applicable to the CHCE submittal. Recommended spare parts list will be included in final instructions shipped with the units.

PROPERTIES

MODEL:	CHCM24-6
Dimensions (WxDxH) – inches	108 x 36 x 78
Shipping weight – pounds	2280
Maximum Airflow – cfm	12,000
Maximum heat rejection rate (Btu/hr)	380,000
Inlet Air conditions (°C)	-20 to +30
Inlet Air Connections – inches (HxW)	3 @ 46 x 23
FILTER frames provided (6 total) ins	16x20 x1
Outlet Air Connections – inches	3 @ 32 x 32
Power (V/Ph/Hz)	600/3/60
MCA (minimum circuit ampacity)	41
MOCP (max fuse size) Amps	60
HACR (max breaker size) Amps	80
Sound level, (dBA @ 2m, unducted)	75
Chilled water temperature range (°C)	-10 to +10
Primary pump flow (gpm)	54



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