Marley Engineered Products:

Cabinet Unit Heater (CU/CUH) Electric Heat Specification

ELECTRIC HEATING

PART 1 - GENERAL

1.1 SCOPE

A. Furnish and install electrical heating systems work, including:

1. Electric Unit Heater, Fan Forced.

1.2 SUBMITTALS

A. For all work specified in Division 23, submittals to include Type 1 (Manufacturer's Name) and Type 2 (Product Data) information. In addition, submittals for the work listed below shall include the indicated type of information.

PART 2 - PRODUCTS

2.1 Electric Cabinet Unit Heaters

A. Heaters shall be designed for a range of heating outputs. Units shall be available in wattages from 3,000 to 50,000 and voltages of 208, 240, 277, 480 and 600 in single and 3 phase options.

B. Enclosures shall be 20 gauge (.035" min.) galvanneal steel enclosure, deep drawn to add rigidity. Enclosure designed to withstand heavy-duty commercial and institutional use.

1. Enclosures shall be chemically-treated to resist corrosion and then finished in baked enamel powder coating. Finish shall be mar and temperature-resistant. Color to be White.
2. Wiring compartment to be located at the right side of the heater with a hinged door to allow full access to wiring and controls. Enclosure to include knockouts for wiring and locations for optional accessories.
3. Enclosure to include removable grilles so that the orientation of the inlet and outlet air can be changed on site.
4. Enclosure designed to allow for horizontal or vertical installation.

C. Heaters shall be designed with advanced pull through airflow to allow air to be pulled across the elements for cooler element operation.

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D. Motor shall be direct drive, permanently lubricated, totally enclosed.

E. Heating elements shall be constructed with nickel chromium wire encased in a steel sheath or stainless steel sheath, and MgO material. Aluminum fins are to be designed for a chimney effect to maximize airflow and pressure bonded to the steel sheath for efficient heat transfer. Elements shall be U-shaped to maximize heat transfer.

F. Built-in optional controls shall be capable of installing in the standard unit enclosure with no separate control box needed. The built-in optional controls shall single pole thermostat, Two stage thermostat, Digital Touchscreen Thermostat with BMS, and power disconnect switch.

G. Additional accessories include base kit, trim kit, and ducting options

H. Heater shall include an automatic reset thermal overheat protector that shall run the full-length of the heater and shall turn off heating elements should overheating occur at any point along heating length. Automatic reset overheat protector shall restore operation automatically when cause of overheating is removed.

I. Manufacturer: Electric Fan Forced Unit Heaters: Berko - CUH Series, Qmark – CU Series,

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install Electric Fan Forced Cabinet Unit Heater complete with built in mounting features and controls, and provide branch circuits and controls.

3.2 ELECTRIC FAN FORCED CABINET UNIT HEATER INSTALLATION

B. Cabinet Unit Heater

1. Complete installation shall conform to UL standards and shall also be in accordance with manufacturer's specification as listed by UL.
2. Unit Heater shall be a minimum of seven feet above the floor, as listed in manufactures installation instructions.
3. All other recommended clearances defined by the manufacture must be met.
4. In-coming power must match nameplate rated voltage of the heater. Connections by approved methods.

3.3 BRANCH CIRCUIT INSTALLATION

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C. Provide Branch Circuits for the Following Items:

1. Electric fan forced unit heater.

D. Provide local switch to disconnect power for heating equipment and the necessary wiring.

3.2 CONTROLS

A. Provide controls as per specifications noted on drawings.

B. Control voltage to be 24 volts on all units

3.3 TESTING

A. Perform adjustments and tests, including setting of thermostats furnished under this Section to assure satisfactory operation.

END OF SECTION

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