

**PART 1 GENERAL****1.1 DESCRIPTION**

- A. Provide Heating, Cooling, and Ventilating Equipment as specified herein and shown on the Drawings.
- B. Equipment capacity and size shall be as indicated on the Drawings.
- C. Related Work: The requirements of Section 23 0500, Common HVAC Materials and Methods, also apply to this section.

**1.2 QUALITY ASSURANCE**

- A. Air Handling Equipment: Rated in accordance with AMCA certified rating procedures and AMCA labeled.
- B. Air Conditioning and Refrigeration Equipment Rating: Rated in accordance with ARI certified rating procedures and ARI labeled.
- C. See Commissioning specification for additional requirements.

**1.3 SUBMITTALS**

- A. Submit catalog data, construction details and performance characteristics for each HVAC unit.
- B. Submit operating and maintenance data.

**PART 2 PRODUCTS****2.1 SMALL PACKAGED HVAC UNITS**

- A. Non-Ducted, Split System Cooling Unit:
  - 1. Indoor Section: Non-ducted, compact fan coil unit designed for wall mounting.
  - 2. Outdoor Section: Capacity matched with indoor section, steel cabinet with hermetically sealed compressor, accumulator, crankcase heater, high and low pressure switches, restart delay relay, and propeller fans.
  - 3. Refrigerant Piping: See Section 23 2300.
  - 4. Unit shall be R-410A
  - 5. Power for indoor unit shall be derived from outdoor unit for systems smaller than 2-1/2 tons.
  - 6. Provide with integral pump for location where gravity drain is not indicated on drawings.
  - 7. Acceptable Manufacturers: Mitsubishi or Daikin only.
  - 8. Minimum efficiency shall be 18 SEER per AHRI 210/240 test procedure.

**PART 3 EXECUTION****3.1 INSTALLATION**

- A. Install and arrange equipment as shown on the Drawings and as recommended by the equipment manufacturer.
- B. Piping: Refer to applicable sections for piping, ductwork, insulation, painting, etc.

- C. Manufacturer's Field Service: Engage a factory authorized service representative to inspect field assembled components and equipment installation, to include electrical and piping connections. Report results to A/E in writing. Inspection must include a complete startup checklist to include (as a minimum) the following: Completed Start-Up Checklists as found in manufacturer's IOM.
- D. Engage a factory authorized service representative to perform startup service. Clean entire unit, comb coil fins as necessary and clean filters. Measure and record electrical values for voltage and amperage. Refer to Division 23 "Testing, Adjusting and Balancing" and comply with provisions therein.
- E. Engage a factory authorized service representative to train owner's maintenance personnel to adjust, operate and maintain the unit. Refer to Division 01 Section Closeout Procedures and Demonstration and Training.

### **3.2 AIR HANDLING INSTALLATION**

- A. Installation and Arrangement: Air handling equipment shall be installed and arranged as shown on the Drawings. Comply with the manufacturer's recommendations for installation connection and start-up.
- B. Lubrication: All moving and rotating parts shall be lubricated in accordance with the manufacturer's recommendations prior to start-up.
- C. Filters: Specified filters or approved temporary construction filters shall be installed in supply units prior to start-up or used for drying and/or temporary heat.

### **3.3 CONTROLS**

- A. Wiring: All wiring shall be in accordance with the National Electrical Code and local electrical codes.

**END OF SECTION**