

**PART 1 - GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.02 SUMMARY**

- A. Section includes packaged terminal air conditioners and their accessories and controls, in the following configurations:
  - 1. Through-the-wall air conditioners.
  - 2. Cooling units with hydronic heat.

**1.03 SUBMITTALS**

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, furnished specialties, electrical characteristics, and accessories.
- B. Shop Drawings: For packaged terminal air conditioners. Include plans, elevations, sections, details for wall penetrations and attachments to other work.
  - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
  - 2. Wiring Diagrams: For power, signal, and control wiring.
- C. Color Samples: For unit cabinet, discharge grille, and exterior louver, and for each color and texture specified.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for packaged terminal air conditioners.
- E. Field quality-control reports.
- F. Operation and Maintenance Data: For packaged terminal air conditioners to include in emergency, operation, and maintenance manuals.
- G. Warranty: Sample of special warranty.

**1.04 QUALITY ASSURANCE**

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 4 - "Outdoor Air Quality," Section 5 - "Systems and Equipment," Section 6 - "Ventilation Rate Procedures," and Section 7 - "Construction and Startup."

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- C. ASHRAE/IESNA Compliance: Applicable requirements in ASHRAE/IESNA 90.1.

**1.05 COORDINATION**

- A. Coordinate layout and installation of packaged terminal air conditioners and wall construction with other construction that penetrates walls or is supported by them.

**1.06 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged terminal air conditioners that fail in materials or workmanship for the period of 5 years.

**PART 2 - PRODUCTS**

**2.01 PACKAGED UNITS**

- A. Available Products:
1. McQuay
  2. Trane
  3. Approved Equal
- B. Self-contained, through-the-wall terminal units, with room cabinet, electric refrigeration system, heating, temperature controls; fully charged with refrigerant and filled with oil.
- C. Cabinet: Galvanized steel for wall with wall sleeve mounting; epoxy or baked-enamel finish in color selected by Architect.
1. Discharge Grille and Access Door: Punched-louver discharge grille allowing four-way discharge-air pattern or Extruded-aluminum discharge grille, with hinged door in top of cabinet for access to controls.
  2. Subbase: Enameled steel with adjustable leveling feet and adjustable end plates, with factory-installed and -wired, fused disconnect switch and receptacle sized for unit.
  3. Wall Sleeves: Galvanized steel with polyester finish.
  4. Louvers: Extruded aluminum with enamel finish; color per Architect.
- D. Refrigeration System: Direct-expansion indoor coil with capillary restrictor, hermetically sealed scroll compressor with internal spring isolation, external isolation, permanent-split-capacitor motor, and overload protection. Include the following:
1. Outdoor coil and fan.
  2. Accumulator.
  3. Constant-pressure expansion valve.
  4. Reversing valve.
- E. Indoor Fan: Forward curved, centrifugal, with two-speed permanent-split-capacitor motor and positive-pressure ventilation damper with electric operator.
- F. Filters: Washable polyurethane in molded plastic frame.
- G. Electric resistance heat backup heater.

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- H. Condensate Drain: Drain pan and piping to direct condensate to building waste and vent piping.
- I. Electrical devices and connections are specified in Division 26 Sections.
- J. Controls: Unit-mounted, adjustable thermostat with heat anticipator, off-heat-auto-cool switch, high-low fan switch, and low ambient lockout control.
- K. Control Module: Unit-mounted adjustable thermostat with heat anticipator, off-heat-auto-cool switch, and high-low fan switch.
- L. Low Ambient Lockout Control: Prevents cooling-cycle operation below 40 deg F (5 deg C), outdoor-air temperature.
- M. Heat-Pump Ambient Control: Field-adjustable switch changes to heat-pump heating operation above 40 deg F (5 deg C) and to supplemental heating below plus 25 deg F (minus 4 deg C).
- N. Control Accessories:
  - 1. Fan-Cycle Switch: Allows fan operating mode to be either continuous or cycled on and off by thermostat.
  - 2. Temperature-Limit Control: Prevents occupant from exceeding preset setback or setup temperature.
  - 3. Compressor Override: Manual switch prevents compressor operation.
  - 4. Remote Control: Standard unit-mounted controls with remote-mounted, low-voltage thermostat.
  - 5. Programmable Thermostat: Microcomputer based with automatic changeover from cooling to heating.
  - 6. Energy Management: Allows remote on-off control with setback temperature control.
  - 7. Reverse-Cycle Defrost: Solid-state sensor monitors frost build-up on indoor coil and reverses unit to melt frost.

**2.02 CAPACITIES AND CHARACTERISTICS**

- A. See Schedules on plans.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

- A. Set wall sleeve level and plumb in exterior wall. Coordinate installation with exterior wall construction.
- B. Install units level and plumb and anchor.
- C. Connect to supply and return hydronic piping with shutoff valve and union or flange at each connection.
- D. Connect units to wiring systems and to ground.

**\*\*END OF SECTION\*\***