

Guide Specifications

EDA

DAVE LENNOX SIGNATURE® COLLECTION Humiditrol® Dehumidification System

August 26, 2013



Note: This specification is for the **Lennox Industries Humiditrol® Dehumidification System**. Revise specification section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles.

This specification utilizes the Construction Specifications Institute (CSI) *Manual of Practice*, including *MasterFormat™*, *SectionFormat™* and *PageFormat™*. Optional text and text requiring a decision is indicated by bolded brackets []; delete text not required in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

HUMIDITY CONTROL EQUIPMENT

SECTION 23 84 00

PART 1 - GENERAL

1.1 SECTION INCLUDE

A. Dehumidifiers

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.

1.2 RELATED SECTIONS

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standards, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

1.3 REFERENCES

- A. Units are CSA certified according to UL-207 and CSA C22.2 No. 14.3 standards
- B. ISO 9001 Registered Manufacturing Quality System

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

1.4 PERFORMANCE REQUIREMENTS

- A. Designed for use with Lennox R-410A outdoor units that are matched with specific furnaces or air handlers (see EDA Product Specifications)
- B. Nominal Capacity: 024 = 2 tons, 036 = 3 tons, 060 = 5 tons
- C. Electrical Characteristics

Specifier Note: 75VA, 24VAC indoor unit transformer must be ordered when EDA unit is installed with a two-stage heat pump system.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

1.5 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures
- B. Product Data: Submit product data, including manufacturer's SPEC-DATA® product sheet, for specified products
- C. Shop Drawings: Physical and electrical layout and drawings including details (where applicable) for permitting purposes.
- D. Quality Assurance:
 - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties
 - 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements
 - 3. Manufacturer's Instructions: Manufacturer's installation instructions

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.

- E. Manufacturer's Field Reports: Manufacturer's field reports specified herein
- F. Closeout Submittals: Submit the following:
 - 1. Warranty: Warranty documents specified herein
 - 2. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance. Include names and addresses of spare part suppliers.
 - 3. Provide brief description of unit, with details of function, operation, control and

component service

4. Commissioning Report: Submit commissioning reports, report forms and schematics in accordance with Section [01 81 00 – Commissioning]

1.6 QUALITY ASSURANCE

- A. Qualifications:
 1. Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project
 2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction and approving application method
- B. Preinstallation Meetings: Conduct preinstallation meeting to verify project requirements, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings).

1.7 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays
- C. Packing, Shipping, Handling and Delivery:
 1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact
 2. Ship, handle and unload units according to manufacturer's instructions
- D. Storage and Protection:
 1. Store materials protected from exposure to harmful weather conditions
 2. Factory shipping covers to remain in place until installation

Specifier Note: Coordinate article below with Conditions of the Contract and Division 1 Closeout Submittals (Warranty).

1.8 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents

Specifier Note: Coordinate paragraph below with manufacturer's warranty requirements.

- C. Warranty: Commencing on Date of Installation

Specifier Note: Refer to Lennox Equipment Limited Warranty certificate included with equipment for

details.

1. All covered components – 1 year limited warranty in non-residential applications

PART 2 - PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards, and descriptions as applicable. Use of such phrases as “or equal” or “or approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.

2.1 SOLAR- KITS/ACCESSORIES

- A. Product: EDA Humiditrol Dehumidification System
- B. Manufacturer: Lennox Industries
 1. Contact: 2140 Lake Park Blvd.; Richardson, TX 75080; Telephone: (800) 453-6669; website: www.lennoxcommercial.com
- C. Proprietary Products/Systems:
 1. Cabinet:
 - a. Low- profile cabinet allows easy installation in upflow or horizontal applications
 - b. Heavy-gauge, cold rolled steel construction
 - c. Pre-painted cabinet finish
 - d. Flanges provided on supply air opening for ease of plenum connection
 - e. Slots on perimeter of inlet opening help facilitate secure connection to indoor coil/ air handler flanges
 - f. Low voltage electrical inlet (for refrigerant valve actuator) provided on front of cabinet
 - g. Fully insulated cabinet with foil faced insulation
 2. Dehumidification Coil:
 - a. Copper tubing
 - b. Ripple-edged, lanced aluminum fins
 - c. Rifled tubing
 - d. Sweat connections
 - e. Twin coil construction assembled in an “A” configuration
 3. Combination Check/Flow Limiting Piston:
 - a. Furnished with unit for field installation
 - b. Prevents refrigerant from flowing into the inactive components when the EDA coil is inactive

4. Dual Refrigerant Diverter Valves:
 - a. Heavy duty valves control refrigerant flow depending on mode
5. 3-way Diverter Valve Actuator:
 - a. Controls operation of refrigerant valves during EDA operation
 - b. 24VAC
 - c. Three position actuator shaft for maintenance – Cooling, Evacuate or Bypass
6. Outdoor Fan Relay and Wiring Harness:
 - a. Required when EDA is used with outdoor units with multi-speed outdoor fans
7. Controls:
 - a. ComfortSense® 7000 Touchscreen Thermostat
8. Required Components:
 - a. Insulation and Piping Kit
 1. Kit includes all necessary piping, fittings and insulation required for EDA installation
 2. Charge compensator and related piping and insulation is furnished with certain Insulation and Piping Kits depending on the system match-up

Specifier Note: Relay kit required only when EDA unit is used with CBX27 air handlers

- b. Relay Kit

Specifier Note: Transformer required only when EDA unit is installed with a two-stage heat pump system

- c. Transformer
 1. 75VA, 24VAC indoor unit transformer

2.2 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

Specifier Note: Article below is an addition to the CSI *SectionFormat* and a supplement to MANU-SPEC. Revise article below to suit project requirements and specifier's practice.

- A. Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalog installation instructions, product carton installation instructions and [Lennox Industries] SPEC-DATA® sheets.

3.2 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.

3.3 INSTALLATION

- A. Install [Commercial Energy System] in accordance with manufacturer's instructions and regulations of authorities having jurisdiction.

END OF SECTION