

ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-079
Name of the item to be scouted:	Split System Ductless AC Units
State item to be used in:	Maine

Describe the Item:

Please describe the item application/the end use of the item.	Split system ductless AC units equivalent to Daikin OTERRA Cooling Only System - MODEL #FTK18BXVJURK18BXVJU
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Supplier Information:

Type of Supplier Being Sought (select from the list below):

Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	

Reason for Scouting Submission (select from the list below)

2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	

Summary of Technical Specifications and Performance Requirements:

Describe the manufacturing processes (elaborate to provide as much detail as possible)	Mechanical equipment assembly
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Provide dimensions / size / tolerances / performance specifications of the item	1.5-Ton Wall Mounted unit with specifications equivalent to Daikin OTERRA Cooling Only System - MODEL #FTK18BXVJURK18BXVJU
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List required materials needed to make the product, including materials of product components, if applicable	Steel, plastics, line sets, coils, pumps, electrical components
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Are there applicable certification requirements?	
Yes	x
No	

Please explain:	ANSI/ASME - Boiler and Pressure Vessel Code ANSI/NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) ANSI/NFPA 90A - Installation of Air Conditioning and Ventilation Systems UL - Underwriters' Laboratories NFPA 70 - National Electric Code
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Are there any applicable regulations that apply to the production of this item?	
Yes	x
No	

Please explain:	ANSI/ASME - Boiler and Pressure Vessel Code ANSI/NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) ANSI/NFPA 90A - Installation of Air Conditioning and Ventilation Systems UL - Underwriters' Laboratories NFPA 70 - National Electric Code
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Are there any other standards / requirements?	
Yes	x
No	

Please explain:	ANSI/ASME - Boiler and Pressure Vessel Code ANSI/NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) ANSI/NFPA 90A - Installation of Air Conditioning and Ventilation Systems UL - Underwriters' Laboratories NFPA 70 - National Electric Code
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Additional Comments:

Additional technical comments:	
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Volume and Pricing:

Estimated Potential Business Volume (i.e. #units per day, month, year):	2 units total
Estimated Target Price/Unit Cost Information:	~\$7,000/unit

Delivery Requirements:

When is it needed by? (Immediate, 30 days, 6 months, etc.)	3 months
Describe packaging requirements (i.e. individually/group packaging, etc.)	Individually wrapped
Where will this item be shipped?	East Boothbay, ME 04544
Additional Comments:	
Is there other information you would like to include?	

SECTION 238126 – SPLIT-SYSTEM AIR CONDITIONERS

PART 1 - GENERAL

1.1 REGULATORY REQUIREMENTS

- A. Comply with the Build America, Buy America Act (BABAA), section 70914 of Public Law No. 117-58, §§70901-52.

1.2 SECTION INCLUDES

- A. Air Conditioning Units.
- B. Controls and Control Panels.

1.3 REFERENCES

- A. ANSI/ASME - Boilers and Pressure Vessels Code.
- B. ANSI/NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- C. ANSI/NFPA 90A - Installation of Air Conditioning and Ventilation Systems.
- D. UL - Underwriters' Laboratories.
- E. NFPA 70 - National Electric Code.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Company specializing in manufacturing the Products specified in this Section with minimum 3 years experience.
- B. Installer Qualifications: Company specializing in performing the work of this Section with minimum 3 years experience.

1.5 REGULATORY REQUIREMENTS

- A. Conform to ANSI/NFPA 90A for the installation of Computer Room air conditioning units.

1.6 SUBMITTALS

- A. Submit Shop Drawings and product data under provisions of Division 01 Section "Submittal Procedures."
- B. Submit product data for manufactured products and assemblies required for this project.
- C. Indicate water, drain, electrical and refrigeration rough-in connections on Shop Drawings or product data.

- D. Submit manufacturer's installation instructions under provisions of Division 01 Section "Submittal Procedures."

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit operation and maintenance data under provisions of Division 01 Section "Operation and Maintenance Data."
- B. Include manufacturer's descriptive literature, operating instructions, installation instructions and maintenance and repair data.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Daikin
- B. Mitsubishi
- C. Trane

2.2 GENERAL

- A. The system to consist of a compact wall-mounted packaged evaporator section and matching air-cooled outdoor unit.
- B. The units shall be listed by Electrical Testing Laboratories (ETL) and bear the ETL label.
- C. Wiring shall be in accordance with the National Electrical Code (N.E.C.).
- D. The units shall be rated in accordance with ARI Standard 210 and bear the ARI label.
- E. A full charge of R-410A for refrigerant tubing shall be provided in the condensing unit. Tubing length shall be provided as required (coordinate with Drawings). A holding charge shall be provided in the evaporator.
- F. Unit shall be U.L. approved and shall bear a U.L. label.

2.3 INDOOR UNIT

- A. The indoor unit shall be completely factory assembled and wired.
- B. The casing shall have a white finish.
- C. The evaporator fan shall be a high performance, forward curve line flow fan direct driven by a single motor. The fan shall be statically and dynamically balanced and run on permanently lubricated bearings.
- D. An adjustable change vane shall be provided with the ability to direct the air flow from horizontal to vertical. An adjustable guide vane shall be provided to manually change the air direction from left to right.

- E. The evaporator coil shall be of nonferrous construction with smooth plate fins bonded to copper tubing. The tubing shall have inner grooves for high efficiency heat exchange. Tube joints shall be brazed with phoscopper or silver alloy. The coils shall be pressure tested at the factory.
- F. A condensate pan with drain shall be provided under the coil.
- G. A condensate pump shall be provided. The condensate pump shall fit within the evaporator housing and shall be completely concealed. The pump shall be supplied by the air conditioning unit manufacturer and shall be field installed in accordance with manufacturer's recommendations.
- H. The unit shall be powered from the outdoor unit. See "Outdoor Unit" in this Section for more information.
- I. The unit shall include washable filters.

2.4 OUTDOOR UNIT

- A. The outdoor unit shall be completely factory assembled, piped, wired, and shall carry a complete refrigerant charge.
- B. The casing shall be fabricated of galvanized steel, bonderized and finished with baked enamel.
- C. The unit shall be furnished with a direct drive, propeller type fan arranged for horizontal discharge.
- D. The motor shall have inherent protection, be of the permanently lubricated type and resiliently mounted for quiet operation.
- E. The fan shall be provided with a raised wire guard to prevent contact with moving parts.
- F. The compressor shall be of the high-performance serviceable rotary type with crankcase heater, accumulator and internal thermal overloads. The compressor shall be internally isolated with rubber mounts so as to avoid the transmission of vibration.
- G. The refrigeration system shall have the capability to operate with a maximum height difference and overall refrigerant tubing length between indoor and outdoor sections as scheduled and without the need for line size changes, traps, or additional oil. Refrigerant flow from the condenser to be controlled by means of a capillary tube.
- H. The condenser coil shall be of nonferrous construction with smooth plate fins bonded to copper tubing. The tubing shall have inner grooves for high efficiency heat exchange. The coil shall be protected with an integral metal guard.
- I. The unit shall be controlled by the microprocessor located in the matching indoor unit. The outdoor unit shall have the ability to provide power for the matching indoor unit. The unit electrical power shall be as scheduled on the Drawings.
- J. The unit shall be capable of low ambient operation, .

2.5 SYSTEM CONTROL

- A. The control system shall consist of two (2) microprocessors interconnected by a multi-wire cable. One microprocessor shall be factory wired and located within the indoor unit. It shall have the capability of sensing room temperature and indoor coil temperature; receive and process commands from the remote controller; and control the outdoor unit. Wireless remote controllers are not acceptable.
- B. The microprocessor within the wall-mounted remote monitor and controller shall display setpoint and room temperature; provide two (2) manually selected modes of cooling, normal and economy operation at 2 degrees F (1 degrees C) above setpoint; provide continuous or automatic start/stop of system operation; night setback operation of 4 degrees F (2 degrees C) above setpoint; and manual or automatic fan speed control. Automatic fan speed control shall be based upon the temperature difference between setpoint and room temperature maintaining lowest speed possible.

2.6 REFRIGERANT PIPING

- A. Unit shall be provided with pre-charged and pre-insulated line sets as recommended by the manufacturer.

2.7 WARRANTY

- A. The units shall have a manufacturer's warranty for a period of 1 year from date of Substantial Completion.
- B. The compressor shall have a warranty of 5 years from date of Substantial Completion.
- C. If any part fails to function properly during the warranty period due to defects in workmanship or material, it shall be replaced or repaired.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that system is located per Drawings.
- B. Verify that proper power supply is available.

3.2 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Mount wall-mounted air-cooled condensing units using bracket furnished by the manufacturer, and provide supplemental supports and vibration elimination accessories as recommended by the manufacturer.

- C. Install condensing units so the fan blows in the same direction as the prevailing winds, unless otherwise directed by the manufacturer.
- D. Provide recessed wall mounting box for mounting the wired indoor controller. Fasten the box to wall framing stud, masonry, or other suitable structural surface approved by the Architect; fastening to gypsum wallboard is not acceptable. Provide interconnecting low-voltage and line-voltage wiring and conduits, concealed unless otherwise indicated. Wall mounting box, wiring, and conduits shall be in accordance with the requirements of Division 26 – Electrical.

END OF SECTION 238126

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