

All Public Work Projects are required to use the Louisiana Uniform Public Work Bid Form

All prices must be held firm unless an escalation provision is requested in this bid. Jefferson Parish will allow one escalation during the term of the contract, which may not exceed the U.S. Bureau of Labor Statistics National Index for all Urban Consumers, unadjusted 12 month figure. The most recently published figure issued at the time an adjustment is requested will be used. A request must be made in writing by the vendor, and the escalation will only be applied to purchases made after the request is made.

Are you requesting an escalation provision?

YES _____ NO

MAXIMUM ESCALATION PERCENTAGE REQUESTED _____%

INITIAL BID PRICES WILL REMAIN FIRM THROUGH THE DATE OF _____.

For the purposes of comparison of bids when an escalation provision is requested, Jefferson Parish will apply the maximum escalation percentage quoted by the bidder to the period to which it is applied in the bid. The initial price and the escalation will be used to calculate the total bid price. It will be assumed, for comparison of prices only, that an equal amount of material or labor is purchased each month throughout the entire contract.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

25 weeks

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable)

35350

THIS SECTION MUST BE COMPLETED BY BIDDER:

FIRM NAME: Beacon Air Conditioning, Heating & Refrigeration, Inc.

ADDRESS: 315 E. 3rd Street

CITY, STATE: Kenner, LA ZIP: 70062

TELEPHONE: (504) 467-8698 FAX: (504) 466-4996

EMAIL ADDRESS: Wendy@beaconac.com

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: #1 7/5/22 W.C.
NUMBER: _____
NUMBER: _____
NUMBER: _____

TOTAL PRICE OF ALL BID ITEMS: \$ 201,500.00

AUTHORIZED SIGNATURE: Wendy Chatelain

Wendy Chatelain

Printed Name

TITLE: Owner/Secretary-Treasurer

SIGNING INDICATES YOU HAVE READ AND COMPLY WITH THE INSTRUCTIONS AND CONDITIONS.

NOTE: All bids should be returned with the BID NUMBER and BID OPENING DATE indicated on the outside of the envelope submitted to the Purchasing Department.

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	1.00	JOB	<p>FURNISH LABOR, MATERIALS AND EQUIPMENT TO REPLACE ONE (1) MULTI-ZONE DX AIR HANDLER UNIT AT FIRST PARISH COURT</p> <p>0010 - AIR HANDLER UNIT REPLACEMENT DEPARTMENT OF GENERAL SERVICES FIRST PARISH COURT</p> <p>PROVIDE LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION, CRANE WORK (IF NECESSARY) AND ALL OTHER INCIDENTALS REQUIRED TO REMOVE ONE (1) EXISTING ROOFTOP AIR HANDLER UNIT AND SUPPLY AND INSTALL ONE (1) NEW ROOFTOP AIR HANDLER UNIT AND ELEVEN (11) NEW VARIABLE AIR VOLUME BOXES PER THE ATTACHED SPECIFICATIONS AT THE FOLLOWING LOCATION:</p> <p style="padding-left: 40px;">FIRST PARISH COURT 924 DAVID DRIVE METAIRIE, LA 70003</p> <p>***** PLEASE SEND ALL QUESTIONS AND EMAILS TO STEPHANIE BUSH AT SABUSH@JEFFPARISH.NET *****</p>	201,500	201,500



JEFFERSON PARISH

DEPARTMENT OF PURCHASING

CYNTHIA LEE SHENG
PARISH PRESIDENT

RENNY SIMNO
DIRECTOR

July 05, 2022

ADDENDUM #1

Bid Number: 50-00138581

Bid Opening Date: July 28, 2022

Description of Bid: Furnish Labor, Materials and Equipment to Replace One (1) Multi-Zone DX Air Handler at First Paris Court for the Jefferson Parish Department of General Services.

CLARIFICATION:

Bid Form has been Revised per Addendum 1 to correct Bid Opening Date. Please discard the previous Bid Form and use the attached one.

Sincerely,

Donna M. Evans

Donna M. Evans
Buyer II

Jefferson Parish Purchasing Department

Bidders must acknowledge all addenda on the bid form. Bidder acknowledges receipt of This addendum on the bid form as indicated. Failure to do so will result in bid rejection.

This addendum is a part of the contract documents and modifies the original bidding documents and specifications. The contents of this addendum shall be included in the contract documents. Changes made by this addendum shall take precedence over the documents of earlier date.

JOSEPH S. YENNI BUILDING - 1221 ELMWOOD PARK BLVD - SUITE 404 - JEFFERSON, LA 70123 - PO BOX 10242 JEFFERSON, LA 70181-0242
OFFICE 504.364-2678

GENERAL GOVERNMENT BUILDING - 200 DERBIGNY ST - SUITE 4400 - GRETNA, LA 70053 - PO BOX 9 - GRETNA - LA 70054
OFFICE 504.364.2678

EMAIL: PURCHASING@JEFFPARISH.NET

WEBSITE: WWW.JEFFPARISH.NET

REVISED PER ADDENDUM 1

REPLACEMENT OF ONE (1) MULTI-ZONE DX AIR HANDLER UNIT

Section 1.0 – Site Visit:

All prospective bidders can schedule a site visit thru Shayne Perez with the Department of General Services between the hours of 7:00 a.m. to 4:00 p.m., Monday Thru Friday. Mr. Perez can be reached at 504-736-6036.

Section 2.0 – Scope:

We extend this proposal to provide labor, materials, equipment, transportation, crane work (if necessary), and all other incidentals required to remove one (1) existing rooftop air handler unit and supply and install one (1) new rooftop air handler unit and eleven (11) new variable air volume boxes at the Jefferson Parish First Parish Courthouse located at 924 David Drive, Metairie, LA.

Section 3.0 – License and Certification Requirements:

3.1 License(s) issued by the Louisiana State Licensing Board for Contractors:

The following Louisiana State licenses will be required for this bid:

- Mechanical statewide

Section 4.0 – Bonds:

Bid Bond:

A bid bond will be required with bid submission in the amount of 5% of the total bid. Vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. Vendor shall indicate the electronic bid bond number in the location specified on the electronic bid envelope. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.

Performance Bond:

A Performance Bond in the amount of 100% of the total contract amount will be required. The performance bond shall be produced upon contract execution.

Payment Bond:

A payment bond of 100% of the total contract amount will be required. A payment bond shall be produced upon contract execution.

BID NO. 50-138581

Section 5.0 – Submittals:

If the bidder intends to provide materials equal to or better than owner specified materials, the following shall be provided with their bid:

Failure to provide the requested information will result in the bid being deemed non-responsive.

- Manufacturer's catalog data
- Detail sheets
- Specifications of product
- Warranty information

Section 6.0 – Quantities/Inspection:

Bidders must inspect the site and perform their measurements to determine the proper quantity of labor, materials, and equipment required to complete this project.

Section 7.0 - Bid Specifications:

The following shall be performed before work begins:

- Before any work begins, an owner's representative and the successful bidder shall inspect, document, and take photos of all existing building and roof conditions.
- Coordinate all shutdowns or disruptions of essential services with the owner before any work begins.
- Take all precautions necessary to protect the roof of the building. Any damage to the roof due to this work shall be repaired at no additional cost to the owner.

Section 7.1 - Removal of Existing Equipment:

- Remove existing air handler unit.
- Removed air handler unit shall be delivered and offloaded at the Jefferson Parish Surplus Property Facility at 920 David Drive, Metairie, LA. 70002.
- Recover all the refrigerant from the existing GovernAir unit, place recovered refrigerant into owner furnished cylinders, and turn it over to the owner.
- Disconnect high voltage and control wiring from the air handler unit.
- Remove and properly dispose of existing zoned supply air ducts from the roof through the deck.

Section 7.2 - Installation:

- Install one new bidder-supplied Voyager 30-ton variable air volume air handler unit with eleven (11) variable air volume boxes.
- All equipment and materials shall be bidder supplied new.
- Any modification or changes needed to the existing foundation will be the successful bidder's responsibility at no additional cost to the owner.

Section 7.2 - Installation: Continued

- Install and align the new air handler unit on the existing steel foundation. Provide new structural steel (if needed) to allow for the setting of the new unit on the existing platform. New steel shall be sized and fitted to match existing steel members. Provide any modification necessary to allow the new chiller to set on the existing steel foundation as per federal, state, and local codes. Any new steel shall be hot-dip galvanized.
- Install unit with factory-supplied spring isolators.
- Supply and install stainless steel fasteners to secure the unit and isolators.
- Re-connect to existing electrical service. Fuse disconnect as per manufacturer's recommendation.
- Install one new bidder-supplied common supply-air plenum through the roof; the plenum shall be constructed to match the existing metal plenum.

Section 7.3 - DDC Controls Scope:

- Design and install new 3D graphics for rooftop units and VAVs. Map all relevant points to the graphics for the newly installed rooftop unit to the existing Tracer FMS (facility management system).
- Install new bidder-supplied step-down transformers to power new VAV boxes.
- Install new bidder supplied low voltage power to each VAV box.
- Bidder shall re-route the existing electric heat control wire to the new VAV's for DDC zone control.

Section 7.4 - Unit Description:

Voyager DX:

- Standard Unit
- DX Cooling, no heat
- Downflow supply and upflow return
- 30-ton 60 Hertz
- 208 Volt 60 Hertz 3 Phase
- Cooling only unit
- 2" MERV 8 High efficiency, throwaway filters
- 15 hp supply motor
- 750/625 (60/50 Hz) Supply fan drive
- 0-25% Manual damper
- VAV (DTC) with supply VFD, bypass, & motor shaft grounding
- Factory powered ground fault convenience outlet with disconnect switch
- Hinged service access doors
- Condenser coil guards
- BACnet communication interface module
- 5k SCCR
- Stainless steel drain pan
- E-Stage, High-efficiency unit
- TD5 Touchscreen display, human interface

BID NO. 50-138581

Section 7.4 - Unit Description: Continued

- Year 2-5 Parts Warranty Whole Unit
- Year 1-5 Labor Warranty Whole Unit Year 2-5 Labor Warranty Whole Unit
- 2nd thru 5th Year Refrigerant Warranty
- UV Lights (Field Installed)

Section 7.5 - Compressors:

- Compressors shall be industrial grade, energy-efficient scroll type. A solid-state temperature sensor shall be embedded in the motor windings to protect against excessive winding temperatures.
- Motor shall be designed for across the line starting and suitable for a voltage utilization range of +/- 10% from nameplate voltage.

Section 7.6 - Evaporator:

- Provide shell and tube type evaporator with welded steel construction with fabricated steel heads, seamless copper tubes with integral fins, rolled into tube sheets.
- Provide a series of internal baffles for one water pass. Each shell shall provide a drain and a vent connection.
- Design, test, and stamp refrigerant side for 225 PSIG working pressure. Waterside shall be designed for 300 PSIG working pressure.

Section 7.7 - Condenser:

- Construct condenser coils of aluminum fins mechanically bonded to seamless copper tubing. Provide sub-cooling circuits. Factory leak test underwater to 450 psi.
- Provide vertical-discharge direct-drive propeller-type condenser fans with fan guard on discharge. Equip with permanently lubricated ball bearings and three-phase thermal overload protection.
- Provide factory-mounted, full-length, louvered steel panels to protect the condenser coils, wiring, sensors, and piping.

Section 7.8 - Enclosure:

- House components in 12-14 gauge welded galvanized steel frame with minimum 16-gauge galvanized steel panels and weather-resistant access doors, phosphatized, and finished with air-dry paint.
- Unit paint finish shall withstand over 600 consecutive hours of salt spray resistance by the ASTM B117 test method.

Section 7.9 - Refrigerant Circuit and Capacity Modulation:

- Provide refrigerant circuits with a full operating charge of refrigerant and oil completely piped and factory leak tested.
- Provide for each refrigerant circuit:
 - Liquid line solenoid valve.
 - Filter dryer.
 - Liquid-line sight glass and moisture indicator.

BID NO. 50-138581

- Section 7.9 - Refrigerant Circuit and Capacity Modulation: Continued

- Thermal expansion valve.
- Charging valve.
- Liquid line shut-off valve.
- Compressor discharge service valve.

Section 8.0 – Safety Precautions:

Safety precautions must be exercised to safeguard the welfare and safety of the people while any work is being performed.

Section 9.0 – Permits:

Bidder shall obtain any permits as required by the Jefferson Parish Department of Inspection and Code Enforcement. The bidder shall be responsible for the payment of these permits. All permits must be obtained before the start of any project requiring permits.

Section - 10.0 - Warranty:

- Five-year parts, labor, maintenance, and refrigerant warranty from the manufacturer.
- All warranty paperwork shall be submitted to the Department of General Services at the completion of the project.

Section 11.0 – Liquidated Damages:

Commencing on the fifth day following the notice to proceed, liquidated damages will be assessed in the amount of \$300 per day.

Section 12.0 – Start of Work Conference and Notice to Proceed:

A “Start of Work Conference” shall be held between the successful bidder and the owner before any work commencing.

No work shall be performed until the successful bidder receives a written “Notice to Proceed” to begin work from the Department of General Services.



BID# 50-00138581

WARRANTY – SECTION 10.0

5 year parts, labor, maintenance and refrigerant warranty from Manufacturer.

Parts	-	Supplied by Trane Corp.
Service Labor	-	Supplied by Trane Corp.
Refrigerant	-	Supplied by Trane Corp.
Annual Maintenance	-	Performed by Beacon A/C once a year



Submittal

Prepared For:
Beacon Air Conditioning

Date: July 28, 2022

Job Name:
JP 1st Parish Court

Trane U.S. Inc. is pleased to provide the following submittal for your review and approval.

Product Summary

Qty Product

- 11 Variable Air Volume Single Duct Terminal Units
- 1 Packaged Rooftop, Cooling / Heating Units

Jason Fowler
Trane U.S. Inc.
4013 N Interstate 10 Service Rd W
Metairie, LA 70002
Office Phone: (504) 733-6789

The attached information describes the equipment we propose to furnish for this project, and is submitted for your approval.

Product performance and submittal data is valid for a period of 6 months from the date of submittal generation. If six months or more has elapsed between submittal generation and equipment release, the product performance and submittal data will need to be verified. It is the customer's responsibility to obtain such verification.

Table of Contents

- Product Summary 1**
- Variable Air Volume Single Duct Terminal Units (Items A1 - A11) 3**
 - Tag Data 3
 - Product Data 3
 - Performance Data 5
 - Mechanical Specifications 6
 - Dimensional Drawings 8
 - Accessory 13
 - Field Wiring 14
- Packaged Rooftop, Cooling / Heating Units (Item B1) 17**
 - Tag Data 17
 - Product Data 17
 - Performance Data 18
 - Mechanical Specifications 20
 - Dimensional Drawings 23
 - Fan Curve 24
 - Weight, Clearance & Rigging 25
 - Accessory 26
 - Field Wiring 27
- Field Installed Options - Part/Order Number Summary 28**
 - Variable Air Volume Single Duct Terminal Units 28

Tag Data - Variable Air Volume Single Duct Terminal Units (Qty: 11)

Item	Tag(s)	Qty	Description	Model Number
A1	VAV-1 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA04521**00500000
A2	VAV-2 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA03011**00500000
A3	VAV-3 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA04521**00500000
A4	VAV-4 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA02511**00500000
A5	VAV-5 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A6	VAV-6 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A7	VAV-7 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A8	VAV-9 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA03011**00500000
A9	VAV-10 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA05021**00500000
A10	VAV-8 EH	1	Variable Air Volume Single Duct Terminal	VCEF16-- *M0SY74A**0*0F2WWB15011**00500000
A11	VAV-11 EH	1	Variable Air Volume Single Duct Terminal	VCEF12-- *M0SY74A**0*0F2WWA08021**00500000

**Product Data - Variable Air Volume Single Duct Terminal Units
All Units**

Space Temperature Modulating Reheat
 Single duct with electric heat
 Matte faced insulation - 1/2" (13 mm)
 SY210 DDC-Basic (Electric heat- staged)
 MSTP Connection
 Standard actuator
 Duct temperature sensor -factory mounted
 Standard Air Leakage
 No water valve
 No piping package
 None
 208/24 volt transformer
 Disconnect switch
 Power Fuse
 24vac magnetic contactors
 1 Digital display zone sensor (Field Installed)

Item: A1, A3 Qty: 2 Tag(s): VAV-1 EH, VAV-3 EH
 8" inlet size, 900 cfm (203mm inlet, 425 l/s)
 208 volt, 1 phase
 Electric heater kW - 4.5
 Stages - 2 - equal

Item: A2, A8 Qty: 2 Tag(s): VAV-2 EH, VAV-9 EH
 6" inlet size, 500 cfm (152mm inlet, 236 l/s)
 208 volt, 1 phase
 Electric heater kW - 3.0
 Stage -1

Item: A4 Qty: 1 Tag(s): VAV-4 EH
 6" inlet size, 500 cfm (152mm inlet, 236 l/s)
 208 volt, 1 phase
 Electric heater kW - 2.5

Stage -1

Item: A5, A6, A7 Qty: 3 Tag(s): VAV-5 EH, VAV-6 EH, VAV-7 EH
5" inlet size, 350 cfm (127mm inlet, 165 l/s)
208 volt, 1 phase
Electric heater kW - 2.5
Stage -1

Item: A9 Qty: 1 Tag(s): VAV-10 EH
8" inlet size, 900 cfm (203mm inlet, 425 l/s)
208 volt, 1 phase
Electric heater kW - 5.0
Stages - 2 - equal

Item: A10 Qty: 1 Tag(s): VAV-8 EH
16" inlet size, 4000 cfm (406mm inlet, 1888 l/s)
208 volt, 3 phase
Electric heater kW - 15.0
Stage -1

Item: A11 Qty: 1 Tag(s): VAV-11 EH
12" inlet size, 2000 cfm (305mm inlet, 944 l/s)
208 volt, 1 phase
Electric heater kW - 8.0
Stages - 2 - equal

Performance Data - Variable Air Volume Single Duct Terminal Units (SINGLE)

Tags	VAV-1 EH	VAV-2 EH	VAV-3 EH	VAV-4 EH	VAV-5 EH, VAV-7 EH	VAV-6 EH
UCM/UC400/UC210/Symbio 210 address ()	0	0	0	0	0	0
Design cooling airflow (cfm)	715	450	670	400	320	350
Min cooling airflow (cfm)	200	113	113	100	80	88
Valve heating airflow (cfm)	315	210	315	175	175	175
Cooling inlet diameter	8"	6"	8"	6"	5"	5"
Cooling inlet velocity (ft/min)	2048	2292	1919	2037	2347	2567
APD @ cooling airflow (in H2O)	0.070	0.180	0.060	0.140	0.020	0.020
Elevation (ft)	0.00	0.00	0.00	0.00	0.00	0.00
Full load amps (A)	21.63	14.42	21.63	12.02	12.02	12.02
Min circuit ampacity (A)	27.04	18.03	27.04	15.02	15.02	15.02
Max fuse size (A)	30.00	20.00	30.00	20.00	20.00	20.00
Operating weight (lb)	38.0	38.0	38.0	38.0	38.0	38.0
Run acoustics?	No	No	No	No	No	No
Hot water valves?	None	None	None	None	None	None
Coil heating capacity (MBh)	15.37	10.25	15.37	8.54	8.54	8.54
Room heat loss (MBh)	10.92	7.28	10.92	6.07	6.07	6.07
Room heating setpoint (F)	68.00	68.00	68.00	68.00	68.00	68.00
Primary EDB (F)	55.00	55.00	55.00	55.00	55.00	55.00
Unit LAT (F)	99.96	99.96	99.96	99.96	99.96	99.96
Electric heater kW (kW)	4.50	3.00	4.50	2.50	2.50	2.50

Tags	VAV-9 EH	VAV-10 EH	VAV-8 EH	VAV-11 EH
UCM/UC400/UC210/Symbio 210 address ()	0	0	0	0
Design cooling airflow (cfm)	500	800	3475	1500
Min cooling airflow (cfm)	125	200	869	375
Valve heating airflow (cfm)	210	350	1300	560
Cooling inlet diameter	6"	8"	16"	12"
Cooling inlet velocity (ft/min)	2546	2292	2489	1910
APD @ cooling airflow (in H2O)	0.220	0.080	0.030	0.040
Elevation (ft)	0.00	0.00	0.00	0.00
Full load amps (A)	14.42	24.04	41.64	38.46
Min circuit ampacity (A)	18.03	30.05	52.04	48.08
Max fuse size (A)	20.00	35.00	60.00	50.00
Operating weight (lb)	38.0	38.0	69.0	52.0
Run acoustics?	No	No	No	No
Hot water valves?	None	None	None	None
Coil heating capacity (MBh)	10.25	17.08	51.23	27.32
Room heat loss (MBh)	7.28	12.14	32.89	19.42
Room heating setpoint (F)	68.00	68.00	68.00	68.00
Primary EDB (F)	55.00	55.00	55.00	55.00
Unit LAT (F)	99.96	99.96	91.32	99.96
Electric heater kW (kW)	3.00	5.00	15.00	8.00

Mechanical Specifications - Variable Air Volume Single Duct Terminal Units

Item: A1 - A11 Qty: 11 Tag(s): VAV-1 EH, VAV-2 EH, VAV-3 EH, VAV-4 EH, VAV-5 EH, VAV-6 EH, VAV-7 EH, VAV-9 EH, VAV-10 EH, VAV-8 EH, VAV-11 EH

General Unit Information

The unit casing is comprised of 22 gauge galvanized steel. Outlet connection is slip and drive.

Agency Listing - The unit is UL and Canadian UL listed as a room air terminal unit. UL Control # 9N65. All Trane terminal units are AHRI 880 - 98 certified.

General Unit Clearance

Allow adequate clearance on control box side of unit to meet NEC. A minimum of one and one half duct diameters of straight duct work, upstream of the air inlet connection, must be present for optimum airflow measurement performance. Upstream duct work should be the same diameter as the primary inlet connection. Allow access to the bottom of unit if Optional Bottom Access Door is selected.

1/2" Matte - Faced Insulation

The interior surface of the unit casing is acoustically and thermally lined with 1/2" 1.50 lb.cu. ft. [24.00 kg./cu. m.] composite density glass fiber with 4.0 lb. cu.ft. [64 kg./cu. m.] high density facing. The insulation is UL listed and meets NFPA-90A and UL 181 standards. The insulation R-value is 1.9. All cut edges of insulation are completely encapsulated in metal to prevent erosion.

Air Valve Size - 05

Air Valve is 350.0 cfm 5" inlet.

Air Valve Size - 06

Air Valve is 500.0 cfm 6" inlet.

Air Valve Size - 08

Air Valve is 900.0 cfm 8" inlet.

Air Valve Size - 12

Air Valve is 2000.0 cfm 12" inlet.

Air Valve Round

The air inlet connection is an 18 gauge galvanized steel cylinder sized to fit standard round duct. A multiple point, averaging flow sensing ring is provided with balancing taps for measuring within +/- 5% of unit cataloged airflow. An airflow versus pressure differential calibration chart is provided. The damper blade is constructed of a closed cell foam seal mechanically locked between two 22 gauge galvanized steel disks. The damper blade assembly is connected through a cast zinc stub axle and shaft supported by self lubricating bearings. The shaft is cast with a damper position indicator. The valve assembly includes a mechanical stop to prevent over stroking. At 4.0" w.g. air valve leakage does not exceed 1% of cataloged airflow.

Air Valve Size - 16

Air Valve is 4000.0 cfm 16" inlet.

Power Disconnect Switch (for VCEF)

A factory provided interlocking door disconnect switch located on the electric heater control panel.

Line Fuse - VCEF

For VCEF units, fuses provided on all energized lines of incoming power to interrupt circuit in overcurrent conditions.

Slip & Drive Connection

A slip and drive connection has two straight flanges on the top and bottom, and two drive connections on the left and right sides. This is a standard option on all VAV single duct terminal units.

Electric Heat Coil

Factory provided and mounted resistance open-coil type heater with airflow switch, a disc-type automatic pilot duty thermal primary cutoff, and manually resettable pilot-duty thermal secondary cutoff with associated backup contactor. Heater element material is type C nickel-chromium alloy. The heater terminal box is provided with 7/8" knockouts for customer power supply. Terminal connections are plated steel with ceramic insulators. Unit is Flippable for both Left and Right hand control access, except with mercury contactor option.

Magnetic Contactor

An electric heater 24 volt contact for use with Direct Digital Control (D.D.C.) or Analog Electronic VAV Controls.

Electric Heat Transformer

A 50VA or 75VA class 2 transformer will be an integral component of the heater control panel dependent on unit load requirements to provide 24 VAC for controls.

D.D.C. Floating Point Actuator

Trane 3 wire, (open, close, common) 26GA when 6-pos amp connector is used for Tracer UC210, VV550, or VAV UCM, otherwise 18GA wires are used. 3.4 VA, 1.7W, 24 VAC, 50/60 Hz. Quarter turn control actuator with linkage release button. Actuator has a constant drive rate independent of load, a rated torque of 35 in-lb, a 90-second drive time and is non-spring return. Travel is terminated by end stops at fully opened and closed positions. An integral magnetic clutch eliminates motor stall. An integral 3 screw terminal block is provided for field wiring. Operating temperature 32.0 F to 125.0 F.

Digital Display Zone Sensor

The Digital Display Zone Sensor contains a sensing element, which sends a signal to the U.C.M. A Liquid Crystal Display (LCD) displays set point, or space temperature. Sensor buttons allow the user to adjust set points, and allow space temperature readings to be turned on or off. The Digital Display Zone Sensor also includes a communication jack, for use with a portable edit device, and an override button to change the U.C.M. from unoccupied to occupied. The override button has a cancel feature, which returns the system to unoccupied mode.

Sensor Enclosure

The sensor enclosure consists of back plate, cover, security screw and mounting hardware. It provides openings for ventilation. A security screw is located at the bottom of the enclosure and anchors the cover to the back plate to help prevent tampering.

Zone Temperature Sensor

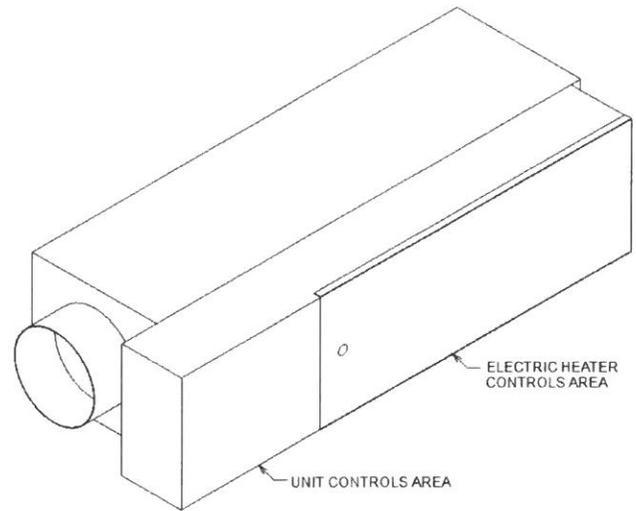
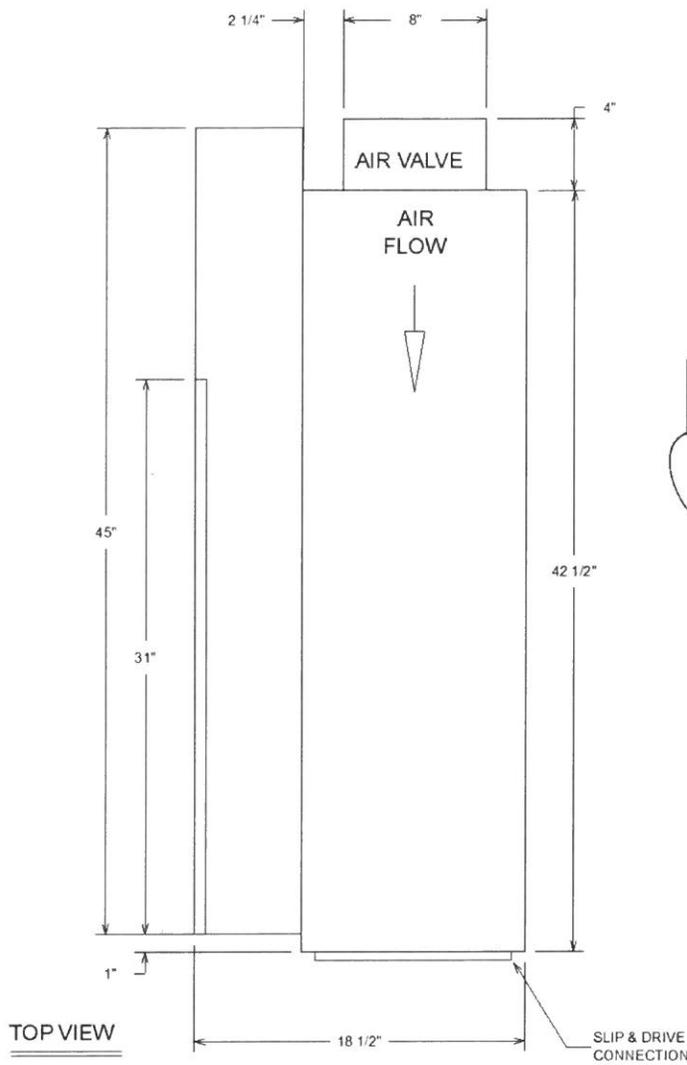
The wired display sensor monitors the temperature of the specific building space where it is installed. The sensor displays zone temperature or setpoint occupancy (timed override) system control. A controller in the HVAC system uses the sensor input to maintain the zone at a selected temperature.

Occupancy (timed override)

This optional function allows temporary control of the heating and cooling for the zone monitored by the temperature sensor which has reverted to unoccupied mode. Not all systems support this capability.

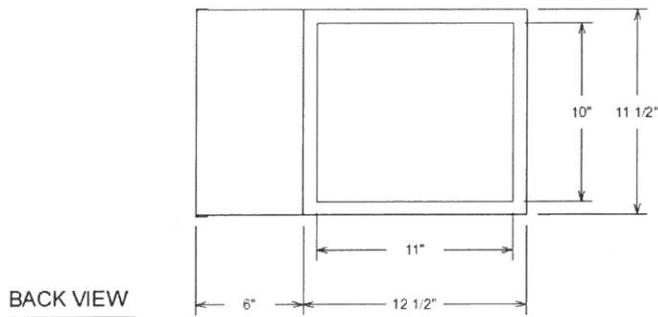
Dimensional Drawings - Variable Air Volume Single Duct Terminal Units

Item: A1, A3, A9 Qty: 3 Tag(s): VAV-1 EH, VAV-3 EH, VAV-10 EH



Customer Notes

- 1 Air Inlet is centered in unit front panel.
- 2 Slip & Drive discharge outlet standard
- 3 Minimum of 1.5 times duct diameter of straight duct at inlet for proper flow reading.
- 4 For electric heater access, side hinged door must have minimum distance per NEC or local code.
- 5 Allow 48" of straight duct downstream of unit before first runout & inside of the duct should be equal discharge size. (A & B)
- 6 Left-hand orientation shown. (Facing discharge)
Unit can be flipped to right-hand orientation

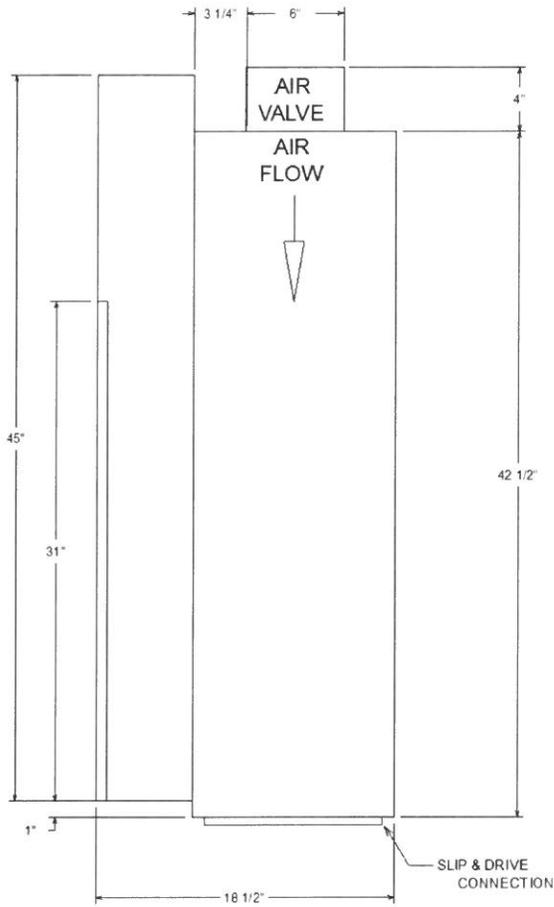


Approximate Dry Weight	38.0 lb
------------------------	---------

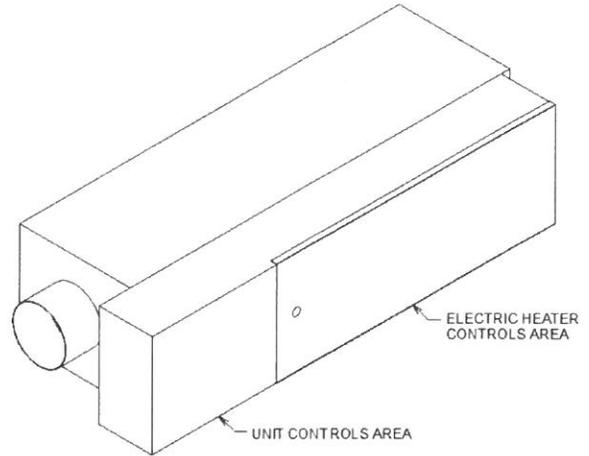
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units

Item: A2, A4, A8 Qty: 3 Tag(s): VAV-2 EH, VAV-4 EH, VAV-9 EH

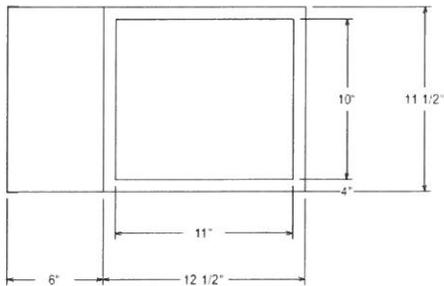


TOP VIEW



Customer Notes

1. Air Inlet is centered in unit front panel.
2. Slip & Drive discharge outlet standard.
3. Minimum of 1.5 times duct diameter of straight duct at inlet for proper flow reading.
4. For electric heater access, side hinged door must have minimum distance per NEC or local code.
5. Allow 48" of straight duct downstream of unit before first runout & inside of the duct should be equal discharge size. (A & B)
6. Left-hand orientation shown. (Facing discharge)
Unit can be flipped to right-hand orientation



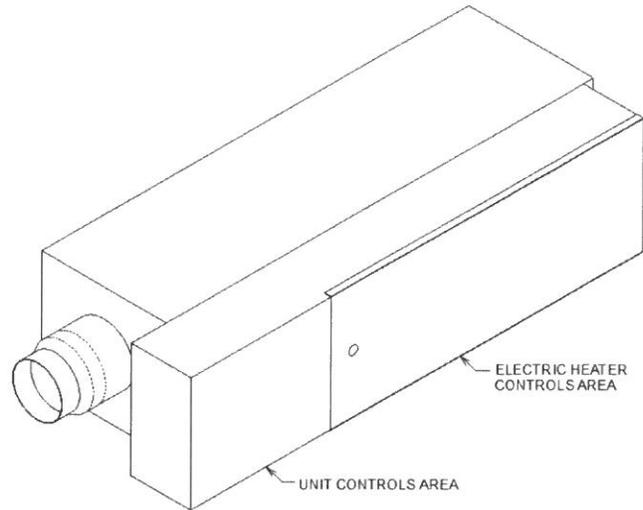
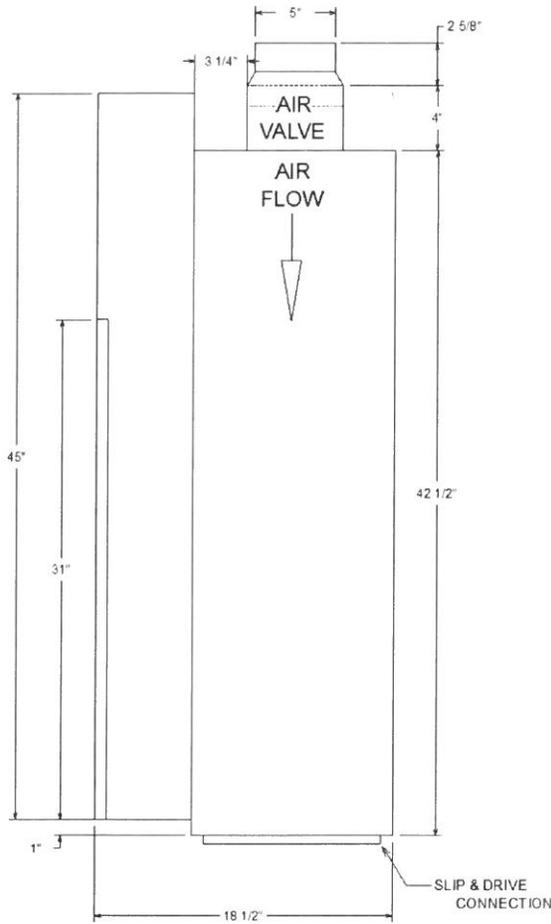
BACK VIEW

Approximate Dry Weight	38.0 lb
------------------------	---------

Weight reflected may vary 5 lbs(2.27kgs) based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units

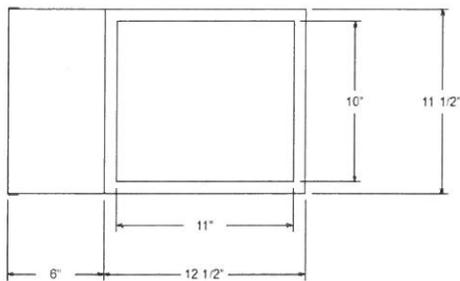
Item: A5 - A7 Qty: 3 Tag(s): VAV-5 EH, VAV-6 EH, VAV-7 EH



Customer Notes

- 1 Air Inlet is centered in unit front panel.
- 2 Slip & Drive discharge outlet standard.
- 3 Minimum of 1.5 times duct diameter of straight duct at inlet for proper flow reading.
- 4 For electric heater access, side hinged door must have minimum distance per NEC or local code.
- 5 Allow 48" of straight duct downstream of unit before first runout & inside of the duct should be equal discharge size. (A & B)
- 6 Left-hand orientation shown. (Facing discharge)
Unit can be flipped to right-hand orientation

TOP VIEW



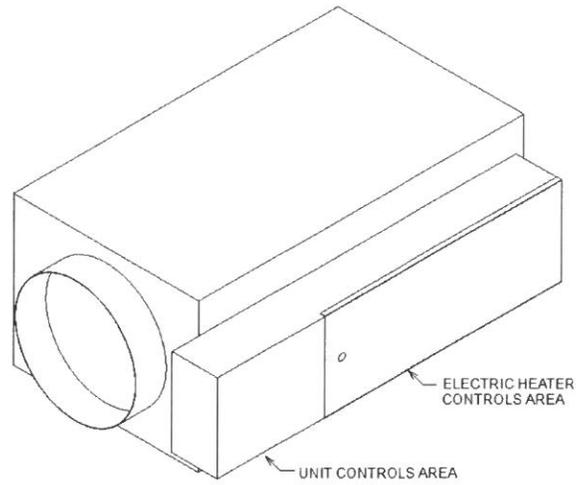
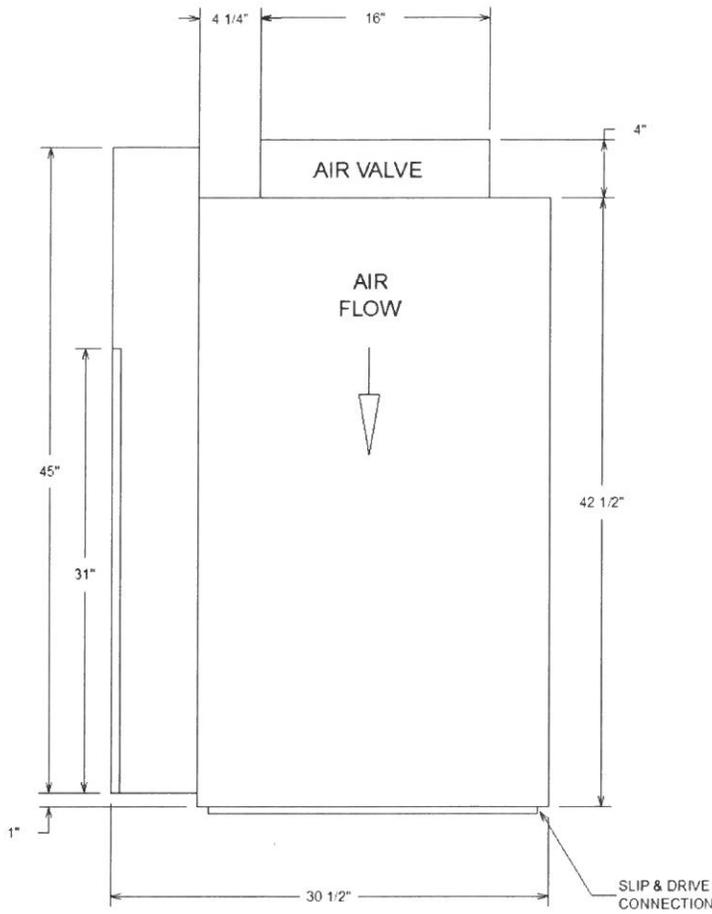
BACK VIEW

Approximate Dry Weight	38.0 lb
------------------------	---------

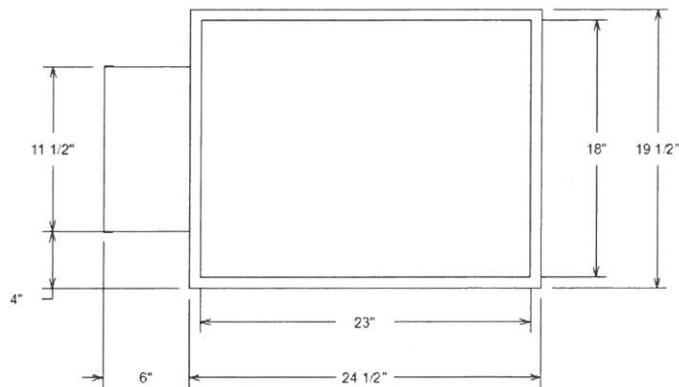
Weight reflected may vary 5 lbs(2.27kgs) based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units

Item: A10 Qty: 1 Tag(s): VAV-8 EH



TOP VIEW



BACK VIEW

Customer Notes

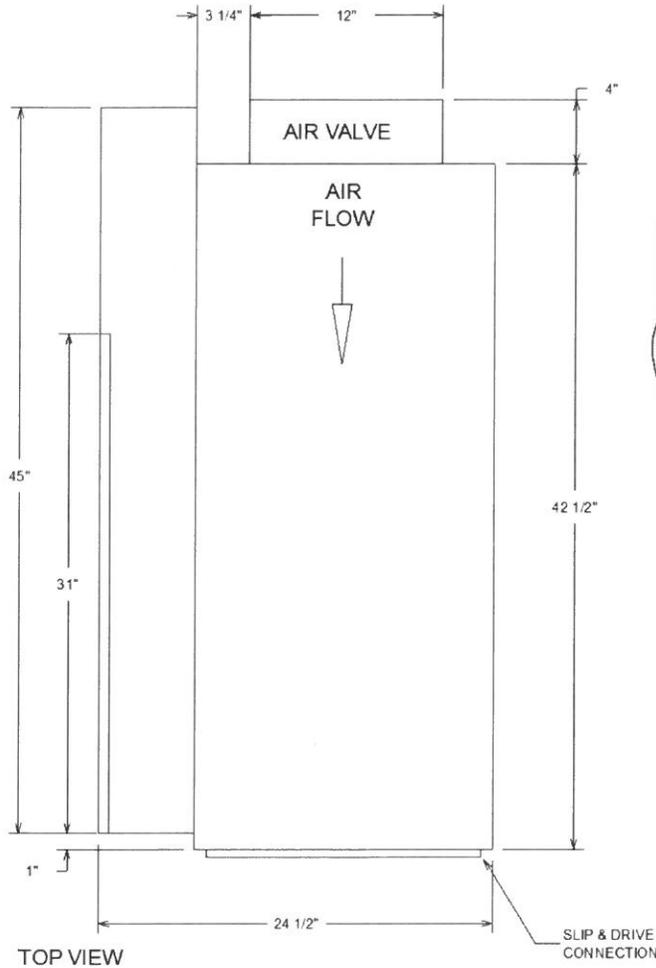
- 1 Air Inlet is centered in unit front panel.
- 2 Slip & Drive discharge outlet standard.
- 3 Minimum of 1.5 times duct diameter of straight duct at inlet for proper flow reading.
- 4 For electric heater access, side hinged door must have minimum distance per NEC or local code.
- 5 Allow 48" of straight duct downstream of unit before first runout & inside of the duct should be equal discharge size. (A & B)
- 6 Left-hand orientation shown. (Facing discharge)
Unit can be flipped to right-hand orientation

Approximate Dry Weight	69.0 lb
------------------------	---------

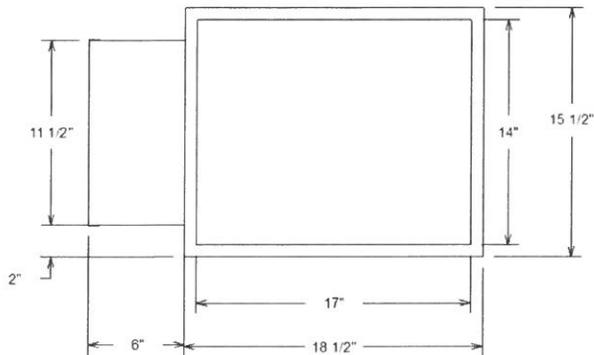
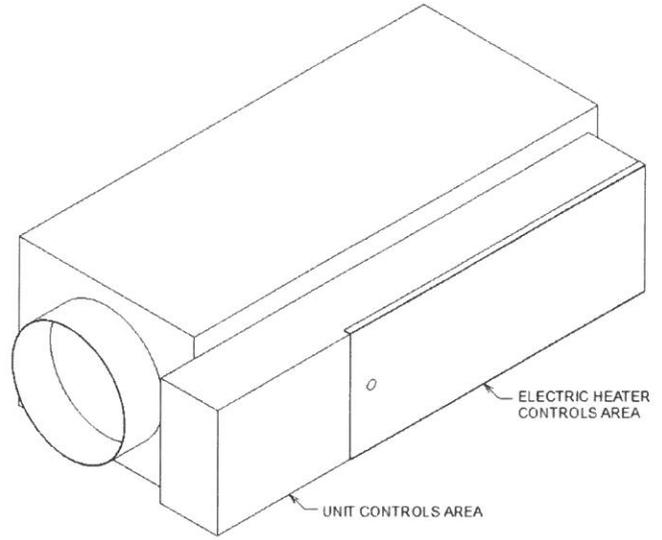
Weights reflected may vary ±5.0 lb based upon options selected.

Dimensional Drawings - Variable Air Volume Single Duct Terminal Units

Item: A11 Qty: 1 Tag(s): VAV-11 EH



TOP VIEW



BACK VIEW

Customer Notes

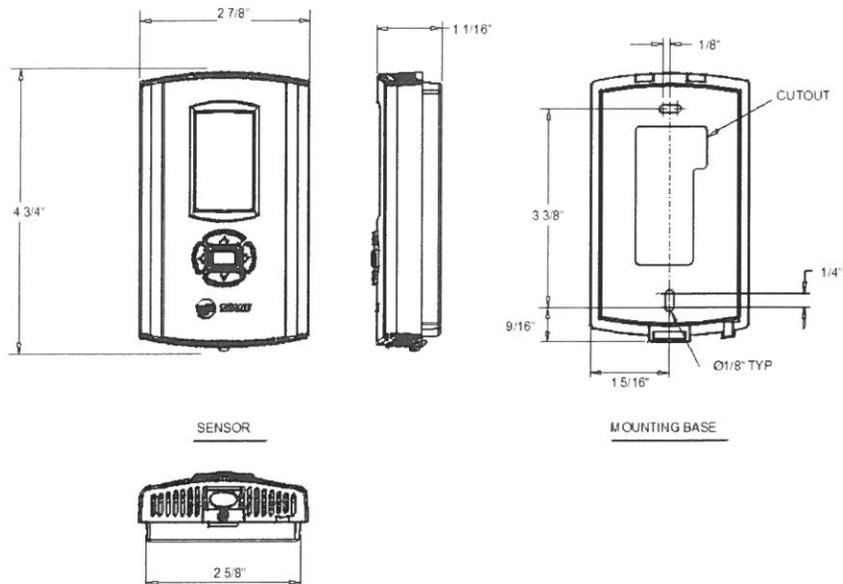
- 1 Air Inlet is centered in unit front panel.
- 2 Slip & Drive discharge outlet standard.
- 3 Minimum of 1.5 times duct diameter of straight duct at inlet for proper flow reading.
- 4 For electric heater access, side hinged door must have minimum distance per NEC or local code.
- 5 Allow 48" of straight duct downstream of unit before first runout & inside of the duct should be equal discharge size. (A & B)
- 6 Left-hand orientation shown (Facing discharge)
Unit can be flipped to right-hand orientation

Approximate Dry Weight	52.0 lb
------------------------	---------

Weights reflected may vary ±5.0 lb based upon options selected.

Accessory - Variable Air Volume Single Duct Terminal Units

Item: A1 - A11 Qty: 11 Tag(s): VAV-1 EH, VAV-2 EH, VAV-3 EH, VAV-4 EH, VAV-5 EH, VAV-6 EH, VAV-7 EH, VAV-9 EH, VAV-10 EH, VAV-8 EH, VAV-11 EH

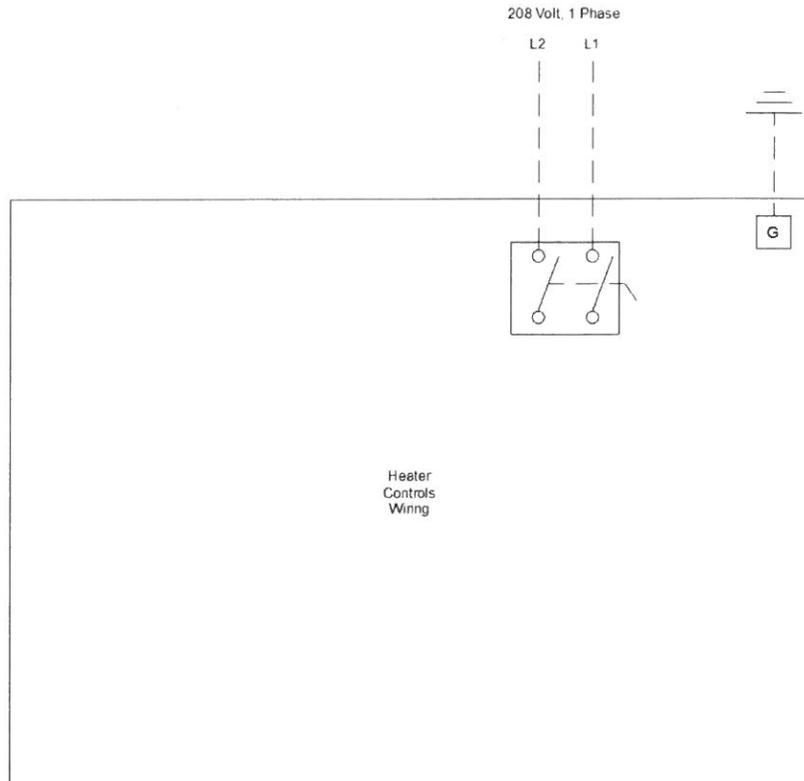


SPECIFICATIONS DIGITAL ZONE SENSOR

Sensor operating temperature	32 to 122°F (0 to 50°C)
Setpoint functional range	50 to 89.6 °F (0 to 32 °C)
Storage and operating humidity range	5% to 95%, non-condensing
Storage Temperature	-40 to 185 °F (-40 to 85 °C)
Accuracy	0.5 °F over a range of 55 to 85 °F (12.8 to 29.4 °C)
Mounting	3/24 in (82.55 mm) for 2 mounting screws (supplied)
Housing	Polycarbonate/ABS blend UV protected UL 94-5 VA flammability rating
Agency Listing	
United States	UL listed UP94, 5 VA flammability rating and UL918, energy management equipmentn FCC Part 15, Subpart B
Canada	CUL-C22 2 N 205-M1983 Signal Equipment Industry Canada (Certificate No. IC6178A-13651127)
Europe	EMC Directive 89/336/EEC (EMC emissions and susceptibility) EN61326-Commercial Application Emissions EN55011 2007 Class B limit Immunity EN61000-4-2 EN61000-4-3 EN61000-4-4 EN61000-4-5 EN61000-4-6 EN61000-4-11

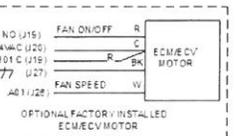
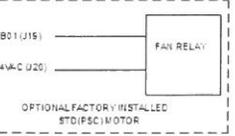
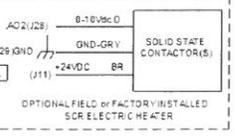
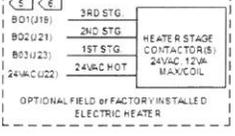
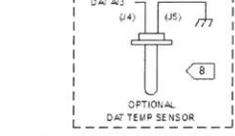
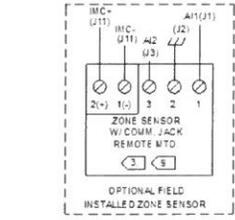
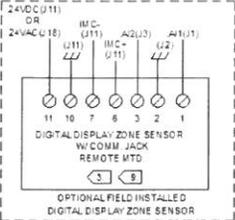
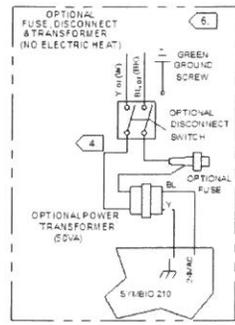
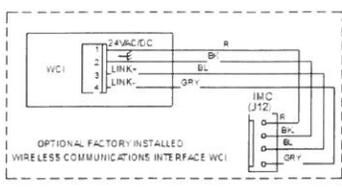
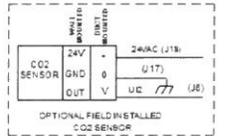
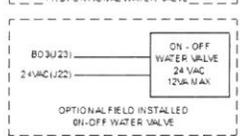
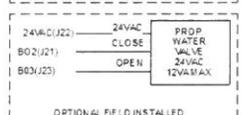
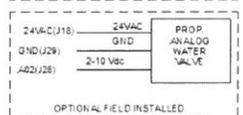
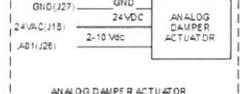
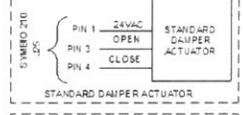
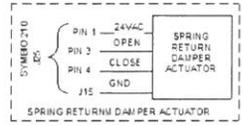
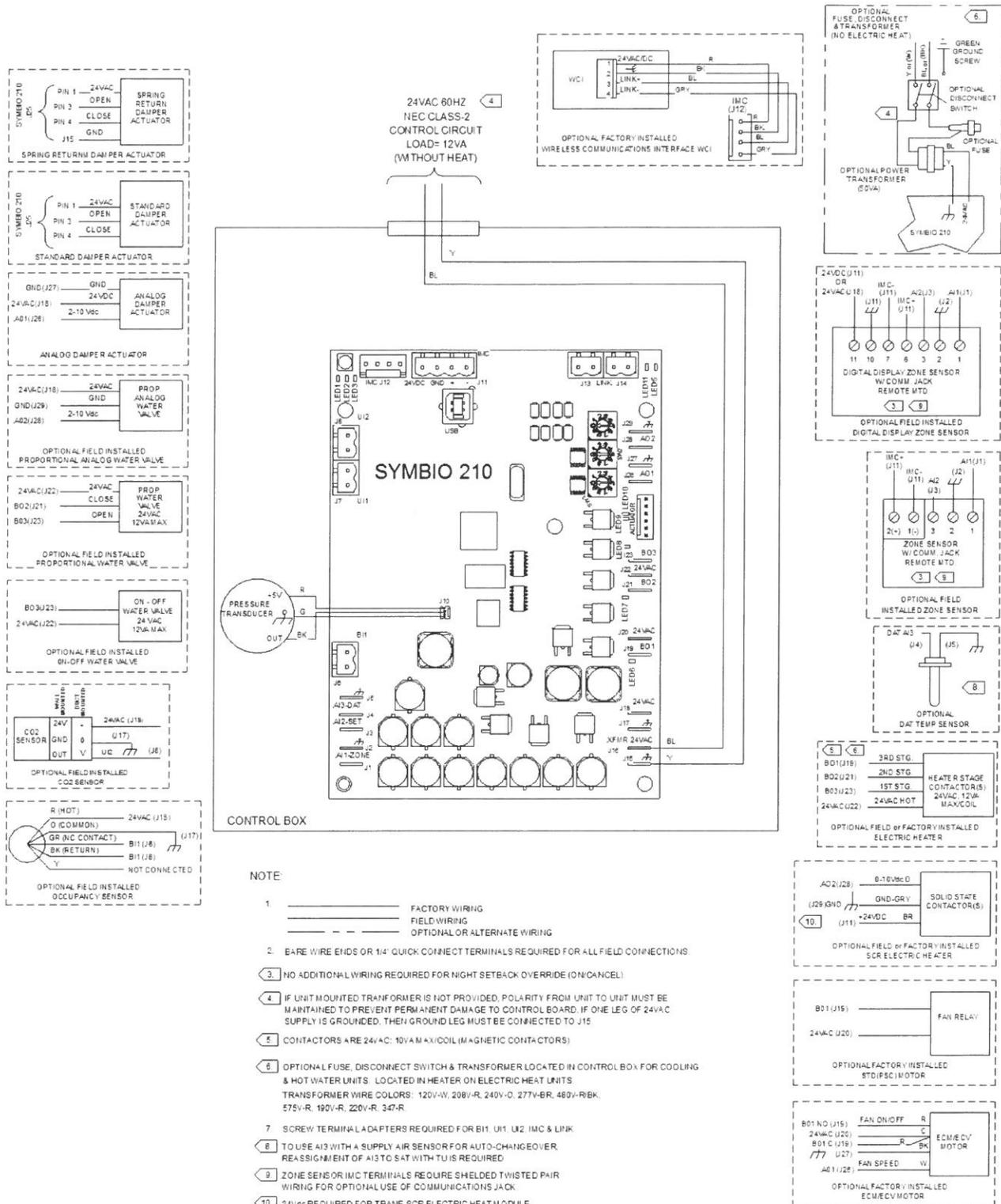
Field Wiring - Variable Air Volume Single Duct Terminal Units

Item: A1 - A9, A11 Qty: 10 Tag(s): VAV-1 EH, VAV-2 EH, VAV-3 EH, VAV-4 EH, VAV-5 EH, VAV-6 EH, VAV-7 EH, VAV-9 EH, VAV-10 EH, VAV-11 EH



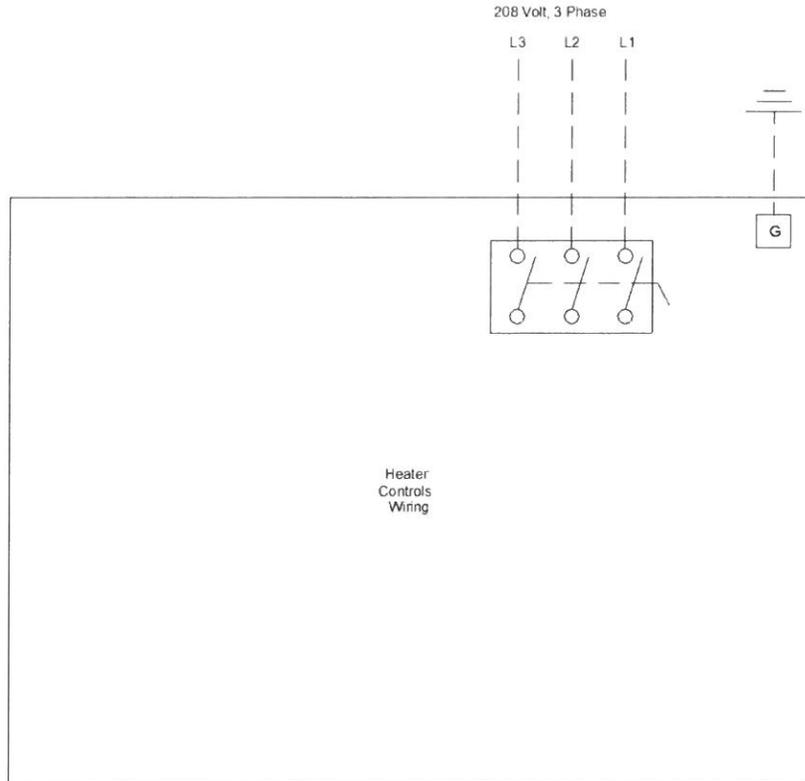
Field Wiring - Variable Air Volume Single Duct Terminal Units

Item: A1 - A11 Qty: 11 Tag(s): VAV-1 EH, VAV-2 EH, VAV-3 EH, VAV-4 EH, VAV-5 EH, VAV-6 EH, VAV-7 EH, VAV-9 EH, VAV-10 EH, VAV-8 EH, VAV-11 EH



- NOTE:**
- 1. _____ FACTORY WIRING
 _____ FIELD WIRING
 - - - - - OPTIONAL OR ALTERNATE WIRING
 - 2. BARE WIRE ENDS OR 1/4" QUICK CONNECT TERMINALS REQUIRED FOR ALL FIELD CONNECTIONS
 - 3. NO ADDITIONAL WIRING REQUIRED FOR NIGHT SETBACK OVERRIDE (ON/CANCEL)
 - 4. IF UNIT MOUNTED TRANSFORMER IS NOT PROVIDED, POLARITY FROM UNIT TO UNIT MUST BE MAINTAINED TO PREVENT PERMANENT DAMAGE TO CONTROL BOARD. IF ONE LEG OF 24VAC SUPPLY IS GROUNDED, THEN GROUND LEG MUST BE CONNECTED TO J15
 - 5. CONTACTORS ARE 24VAC, 10VAMAX/COIL (MAGNETIC CONTACTORS)
 - 6. OPTIONAL FUSE, DISCONNECT SWITCH & TRANSFORMER LOCATED IN CONTROL BOX FOR COOLING & HOT WATER UNITS. LOCATED IN HEATER ON ELECTRIC HEAT UNITS
 TRANSFORMER WIRE COLORS: 120V-W, 208V-R, 240V-O, 277V-BR, 480V-RBK, 575V-R, 190V-R, 220V-R, 347-R
 - 7. SCREW TERMINAL ADAPTERS REQUIRED FOR B11, U11, IMC & LINK
 - 8. TO USE A13 WITH A SUPPLY AIR SENSOR FOR AUTO-CHANGE-OVER, REASSIGNMENT OF A13 TO SAT WITH TU IS REQUIRED
 - 9. ZONE SENSOR IMC TERMINALS REQUIRE SHIELDED TWISTED PAIR WIRING FOR OPTIONAL USE OF COMMUNICATIONS JACK
 - 10. 24Vdc REQUIRED FOR TRANE SCR ELECTRIC HEAT MODULE

Field Wiring - Variable Air Volume Single Duct Terminal Units
Item: A10 Qty: 1 Tag(s): VAV-8 EH



Tag Data - Packaged Rooftop, Cooling / Heating Units (Qty: 1)

Item	Tag(s)	Qty	Description	Model Number
B1	RTU-1	1	27 1/2-50 Ton Packaged Commercial Rooftop	TCD360CE0*0B3ECB00*D***HHB0ML0*0000*0000 X*****0

Product Data - Packaged Rooftop, Cooling / Heating Units

Item: B1 Qty: 1 Tag(s): RTU-1

- Standard Unit
- DX Cooling, no heat
- Downflow supply and upflow return
- 30 ton 60 Hertz
- R-410A + Symbio 700
- 208 Volt 60 Hertz 3 Phase
- Cooling only unit
- 2" MERV 8 High efficiency, throwaway filters
- 15 hp supply motor
- 750/625 (60/50 hz) Supply fan drive
- 0-100% Economizer, dry bulb control
- VAV (DTC) with supply VFD, bypass, & motor shaft grounding
- Factory powered ground fault convenience outlet with disconnect switch
- Hinged service access doors
- Louvered condenser coil hail guards
- Adv Ctrl & BACnet/Modbus Comm. (BCI)
- 5k SCCR
- Stainless steel drain pan
- eStage, High efficiency unit w/ corrosion protected condenser coil
- Year 2-5 Parts Warranty Whole Unit
- Year 1 Labor Warranty Whole Unit
- Year 2-5 Labor Warranty Whole Unit
- 1st Year Refrigerant Warranty
- 2nd thru 5th Year Refrigerant Warranty

Performance Data - 27 1/2-50 Ton Packaged Commercial Rooftop (VOYAGER3)

Tags	RTU-1
Design airflow (cfm)	10000
Elevation (ft)	0.00
Cooling EDB (F)	77.00
Cooling EWB (F)	64.70
Ambient temp (F)	95.00
Leaving unit DB (F)	55.18
Leaving unit WB (F)	53.07
Leaving coil DB (F)	51.57
Leaving coil WB (F)	51.51
Gross total capacity (MBh)	352.04
Gross sensible capacity (MBh)	248.26
Gross latent capacity (MBh)	103.78
Net total capacity (MBh)	325.56
Net sensible capacity (MBh)	221.78
Net sensible heat ratio (%)	0.68
ESP (in H2O)	2.200
Total static pressure (in H2O)	2.840
Actual Supply Motor BHP (bhp)	9.20
Indoor speed (rpm)	771
Supply Motor Power (kW) (kW)	6.87
Outdoor motor power (kW)	0.01
Compressor power (kW)	24.81
System power (kW)	35.87
EER @ AHRI (EER)	11.4
IEER @ AHRI (EER)	15.5
Min circuit ampacity (A)	175.25
Max overcurrent protection (A)	200.00
Min disconnect switch size (A)	189.00
Compressor 1 RLA (A)	27.70
Compressor 2 RLA (A)	40.30
Compressor 3 RLA (A)	40.30
Supply fan FLA (A)	43.00
Condenser fan FLA (A)	4.40
Condenser fan count (Each)	3.00
Exhaust fan FLA (A)	0.00
Exhaust fan count (Each)	0.00
Electric heater FLA (A)	0.00
Crankcase heater FLA (A)	1.00
Estimated operating weight (lb)	4524.0
Discharge duct - 63 Hz (dB)	87
Discharge duct - 125 Hz (dB)	84
Discharge duct - 250 Hz (dB)	81
Discharge duct - 500 Hz (dB)	81
Discharge duct - 1 kHz (dB)	78
Discharge duct - 2 kHz (dB)	75
Discharge duct - 4 kHz (dB)	71
Discharge duct - 8 kHz (dB)	64
Return duct - 63 Hz (dB)	87
Return duct - 125 Hz (dB)	78
Return duct - 250 Hz (dB)	72
Return duct - 500 Hz (dB)	72
Return duct - 1 kHz (dB)	70
Return duct - 2 kHz (dB)	64
Return duct - 4 kHz (dB)	59

Tags	RTU-1
Return duct - 8 kHz (dB)	54
Outdoor - 63 Hz (dB)	100
Outdoor - 125 Hz (dB)	96
Outdoor - 250 Hz (dB)	97
Outdoor - 500 Hz (dB)	96
Outdoor - 1 kHz (dB)	93
Outdoor - 2 kHz (dB)	89
Outdoor - 4 kHz (dB)	90
Outdoor - 8 kHz (dB)	83
Refrig charge - ckt 1 (lb)	48.0
Entering DX DB in HGRH (F)	73.00
Entering DX WB in HGRH (F)	64.00
Ambient in HGRH mode (F)	75.00
Reheat Setpoint (LUDB in HGRH) (F)	70.00

Mechanical Specifications - Packaged Rooftop, Cooling / Heating Units**Item: B1 Qty: 1 Tag(s): RTU-1****Hinged Service Access**

Filter access panel and supply fan access panel shall be hinged for ease of unit service.

High Efficiency Unit (eStage)

This option shall provide five stages of mechanical cooling with the ability to be at or below 25% compressor displacement at stage one. Service valves shall also be provided factory installed and include suction and discharge 3-way shutoff valves.

Phase and Voltage Monitor

Standard on all Voyager Commercial units. Shall protect 3-phase equipment from phase loss, phase reversal, and low voltage. Any fault condition shall send the unit into an auto stop condition. cULus approved.

Refrigerant Circuits

Each refrigerant circuit shall have independent thermostatic expansion devices, service pressure ports and refrigerant line filter driers factory-installed as standard. An area shall be provided for replacement suction line driers.

Outdoor Fans

The outdoor fan shall be direct-drive statically and dynamically balanced, draw through in the vertical discharge position. The fan motors shall be permanently lubricated and have built-in thermal overload protection.

Corrosion Protected Condenser Coil

All Aluminum Microchannel condenser coil protection shall consist of a corrosion resistant coating that shall withstand ASTM B117 Salt Spray test for 6000 hours and ASTM G85 A2 Cyclic Acidified Salt Fog test for 2400 hours. This coating shall be added after coil construction covering all tubes, headers and fin edges, therefore providing optimal protection in more corrosive environments.

Louvered Hail Guard

Louvered, hail protection quality coil guards are available for condenser coil protection.

Stainless Steel Drain Pans

Sloped stainless steel evaporator coil drain pans shall be durable, long-lasting and highly corrosion resistant.

Indoor Fan, 60 Hz Supply Motor

Unit will have belt driven, forward curve, centrifugal fans with fixed motor sheaves. The supply fan motors will be circuit breaker protected. All 60 Hz supply fan motors meet the Energy Independence and Security Act of 2009 (EISA).

Variable Frequency Drive

Unit shall include factory-installed and tested variable frequency drive[s] (VFD) to provide motor speed modulation. The VFD shall receive a 0-10VDC speed signal from the unit controller. The drive will respond to the signal by accelerating or decelerating to maintain the controlling set point (duct static, space pressure, etc). VFD shall also include the following features:

1. Designed, constructed, and tested in accordance with NEMA ICS, NFPA, and IEC standards and housed in a plastic IP20 enclosure.
2. DC link reactors on both the positive and negative rails of the DC bus equal to 3% impedance to minimize power line harmonics.
3. Full rated output current continuously - 110% of rated current for 60 seconds and 160% of rated current for up to 0.5 second while starting.
4. Isolation between the Drive's power circuitry and control circuitry to ensure operator safety and to protect connected electronic control equipment from damage caused by voltage spikes, current surges, and ground loop currents.
5. Audible noise reduction through automatic adjustment of the carrier frequency and frequency avoidance.

6. Rated at 40C with a standard operating range of -10 to 50C (14 to 124F) ambient temperatures and 0 to 95% relative humidity
7. Self-diagnostics and motor protections such as: cULus listed overload, phase loss, and internal thermal overload.
8. Off/Stop and Auto/Start selector switches to start and stop the AC Drive and determine the speed reference.
 - a. On units with bypass, an AC Drive/Off/Bypass hand selector switch shall be provided in the unit control box
 - b. In DRIVE mode speed reference shall be provided by a 0-10 VDC analog input
9. A keypad interface which shall be programmable by language and feature multiple lines for easy reading
10. Controlled and/or accessible points such as AC Drive Start/Stop, speed reference, and fault diagnostics.
11. Meter points such as motor power in HP, motor power in kW, motor kW-hr, motor current, motor voltage, hours run, DC link voltage, thermal load on motor, Thermal load on AC Drive and Heatsink temperature.
12. Troubleshooting features such as:
 - a. AC Drive memory storage of the last 10 faults and related operational data
 - b. Four simultaneous displays: frequency or speed, run time, output amps and output power
 - c. Keypad which shall display: Reference Signal Value, Output Frequency in Hz or percent, Output Amps, Motor HP, Motor kW, kW
13. Coated circuit boards for protection against corrosive environments
14. Field readable BACnet points to allow for communication of status, setpoints and diagnostics to the BAS.

Motor Shaft Grounding Ring

Motors shall have internal bearing protection for use with VFDs to provide a conductive discharge path away from the motor bearings to ground. Bearing Protection Rings shall be circumferential rings with conductive micro fibers which provide the path of least resistance and dramatically extend motor life.

2" High Efficiency Filters - MERV 8

2" High Efficiency MERV 8 filters will be standard.

Economizer with Dry Bulb Control

An economizer shall be factory installed. The assembly shall include: 0 -100 percent fully modulating dampers, minimum position setting, preset linkage, wiring harness, and fixed dry bulb control.

Controls

Unit shall be completely factory wired with necessary controls and terminal block for power wiring. Units shall provide an external location for mounting fused disconnect device. The controls shall be provided for all 24 volt control functions. The resident control algorithms shall make all heating, cooling and/or ventilating decisions in response to electronic signals from sensors measuring indoor and outdoor temperatures. The control algorithm maintains accurate temperature control, minimizes drift from set point and provides better building comfort. The controls shall provide anti-short cycle timing and time delay between compressors to provide a higher level of machine protection.

Unit Interrupt Rating (Standard Short Circuit Current Rating-SCCR)

A 5,000 Amp rating shall be applied to the unit enclosure using a non-fused circuit breaker for disconnect switch purposes. Fan motors, compressors, and electric heat circuits shall be provided with protective devices that will provide the unit rated level of fault protection. The unit shall be marked with approved cULus markings and will adhere to cULus regulations.

Non-Fused Disconnect Switch

A factory installed non-fused disconnect switch with external handle shall be provided and shall satisfy NEC requirements for a service disconnect. The non-fused disconnect shall be mounted inside the unit control box.

GFI Convenience Outlet (Factory Powered)

A 15A, 115V Ground Fault Interrupter convenience outlet shall be factory installed. It shall be wired and powered from a factory mounted transformer. Unit mounted non-fused disconnect with external handle shall be furnished with factory powered outlet.

BACnet Communications

The BACnet communications interface shall allow the unit to communicate directly with a generic open protocol BACnet MS/TP Network Building Automation System Controls.

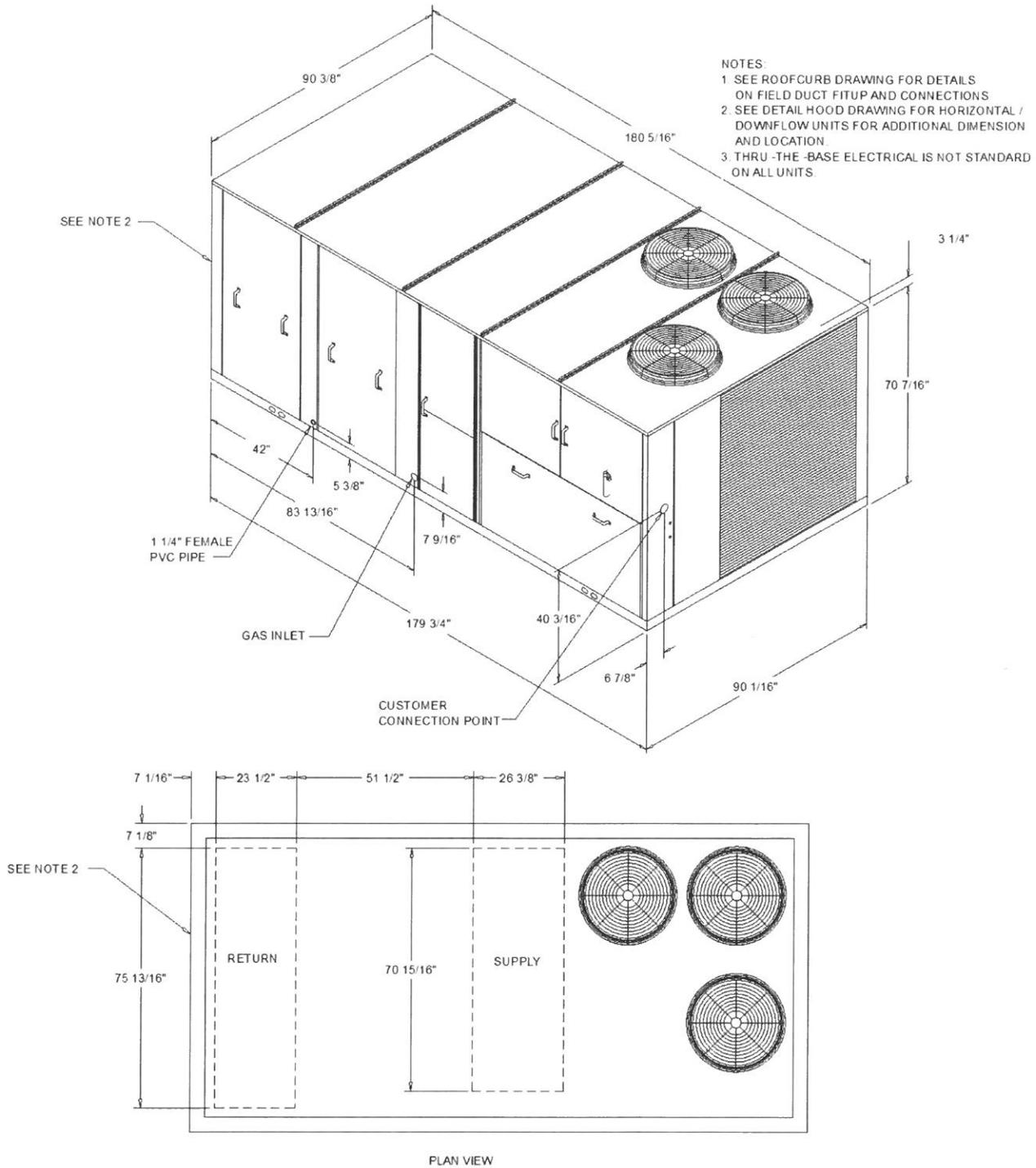
Certified AHRI Performance

Packaged Rooftop units cooling, heating capacities and efficiencies are rated within the scope of the Air-Conditioning, Heating & Refrigeration Institute (AHRI) Certification Program and display the AHRI Certified® mark as a visual confirmation of conformance to the certification sections of AHRI Standard 340-360 (I-P) and ANSI Z83.8/CSA 2.6 and 10 CFR Part 431 pertaining to Commercial Warm Air Furnaces. The applications in this catalog specifically excluded from the AHRI certification program are:

- Ventilation modes
- Heat Recovery

Dimensional Drawings - Packaged Rooftop, Cooling / Heating Units

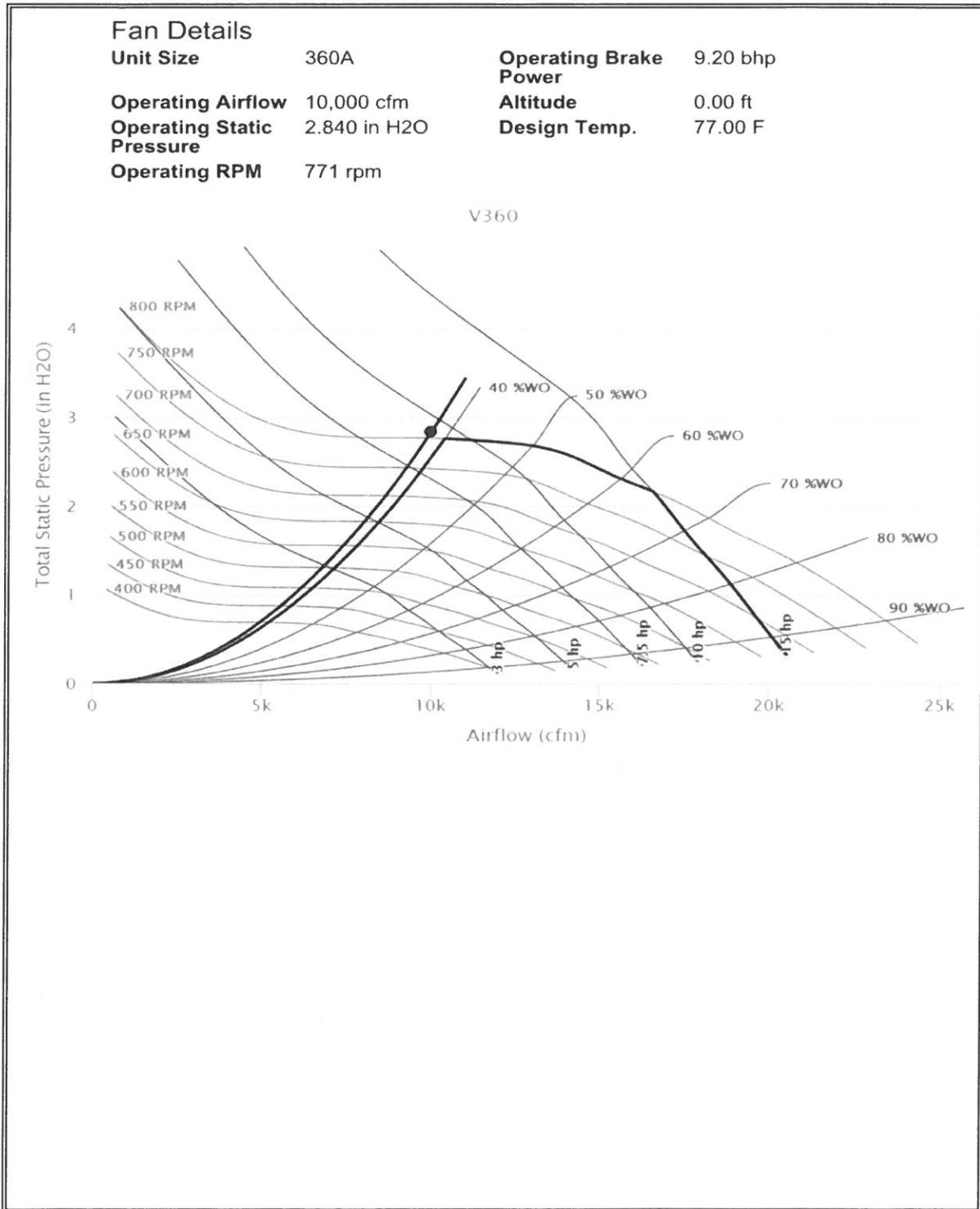
Item: B1 Qty: 1 Tag(s): RTU-1



DOWNFLOW SUPPLY AND UPFLOW CONFIGURATION

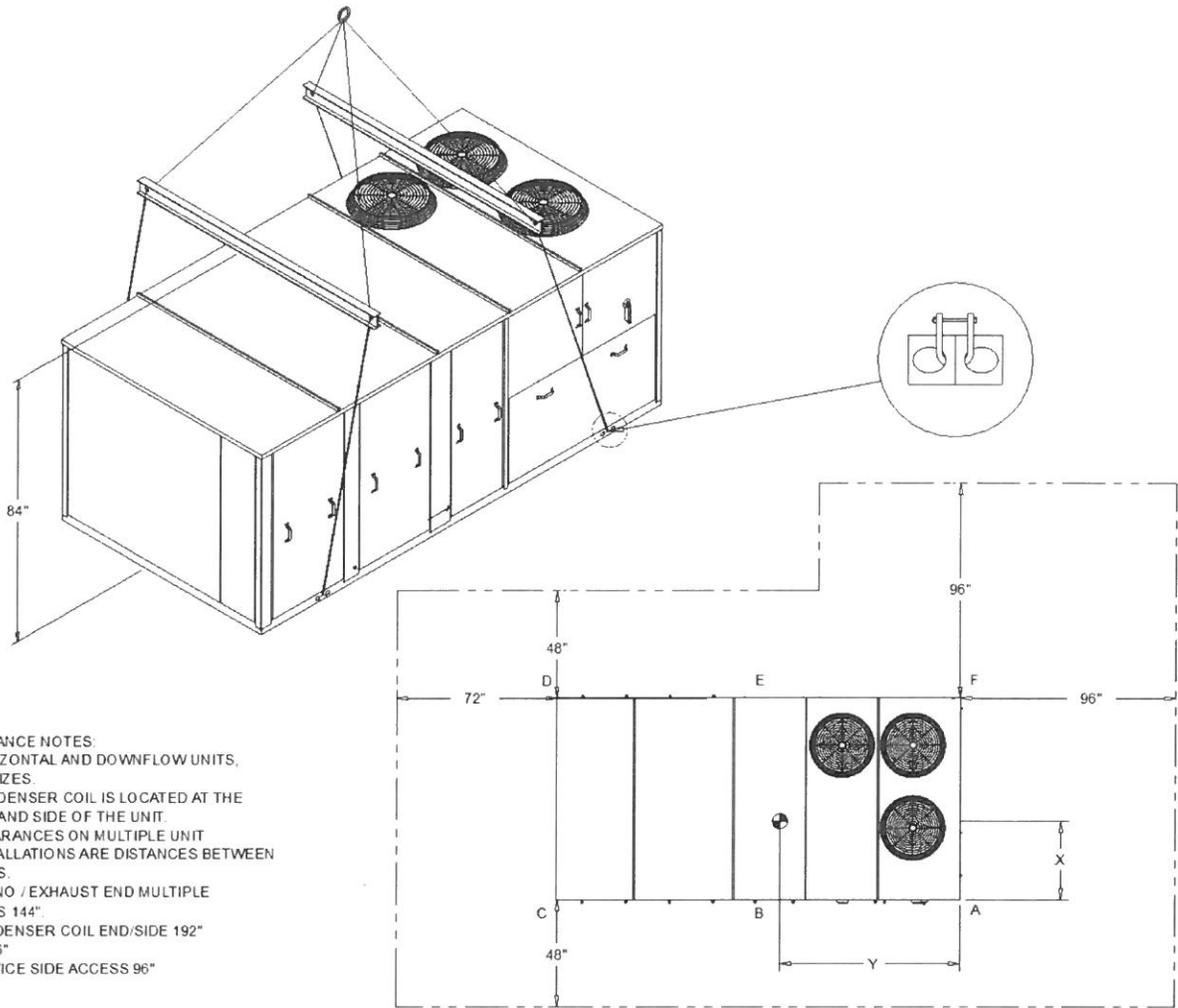
DIMENSIONAL DRAWING

Fan Curve - Packaged Rooftop, Cooling / Heating Units
Item: B1 Qty: 1 Tag(s): RTU-1



Weight, Clearance & Rigging - Packaged Rooftop, Cooling / Heating Units

Item: B1 Qty: 1 Tag(s): RTU-1

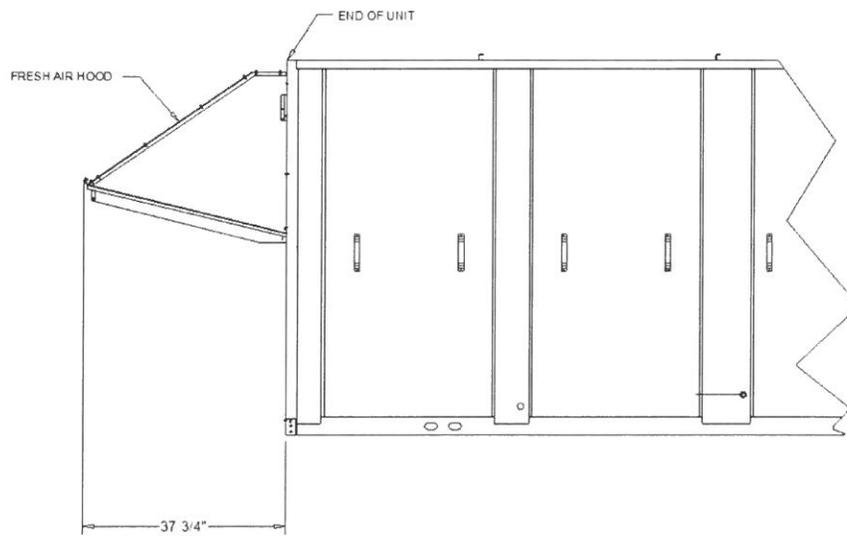


- CLEARANCE NOTES:**
1. HORIZONTAL AND DOWNFLOW UNITS, ALL SIZES.
 2. CONDENSER COIL IS LOCATED AT THE END AND SIDE OF THE UNIT.
 3. CLEARANCES ON MULTIPLE UNIT INSTALLATIONS ARE DISTANCES BETWEEN UNITS.
 4. ECONO / EXHAUST END MULTIPLE UNITS 14"
 5. CONDENSER COIL END/SIDE 192" TO 96"
 6. SERVICE SIDE ACCESS 96"

ESTIMATED OPERATING WEIGHT														
OPERATION WEIGHT: 4,524.0 lb														
CENTER OF GRAVITY					OPTIONAL COMPONENTS									
X	44"			Y	77"			POWER EXHAUST	N/A	BARO. RELIEF	N/A	SERVICE VALVES	N/A	
CORNER LOADING PERCENTS					ECONOMIZER					260.0 lb	THRU-BASE ELECTRICAL	N/A	DISC. SWITCH	N/A
A	B	C	D	E	F	MANUAL DAMPERS	N/A	GFI WITH DISCON. SWITCH	85.0 lb	VFD	85.0 lb			
21%	16%	18%	17%	14%	15%	ULTRA LOW LEAK EXH.	N/A	ULTRA LOW LEAK ECON	N/A					
							COIL HAIL GUARD	105.0 lb	MOD. HOT GAS REHEAT	N/A				

- WEIGHT NOTES:**
1. THE WEIGHT SHOWN REPRESENTS THE TYPICAL UNIT OPERATING WEIGHT FOR THE CONFIGURATION SELECTED. ESTIMATED AT +/- 10% OF THE NAMEPLATE WEIGHT.
 2. THE ACTUAL WEIGHT IS STAMPED ON THE UNIT NAMEPLATE.

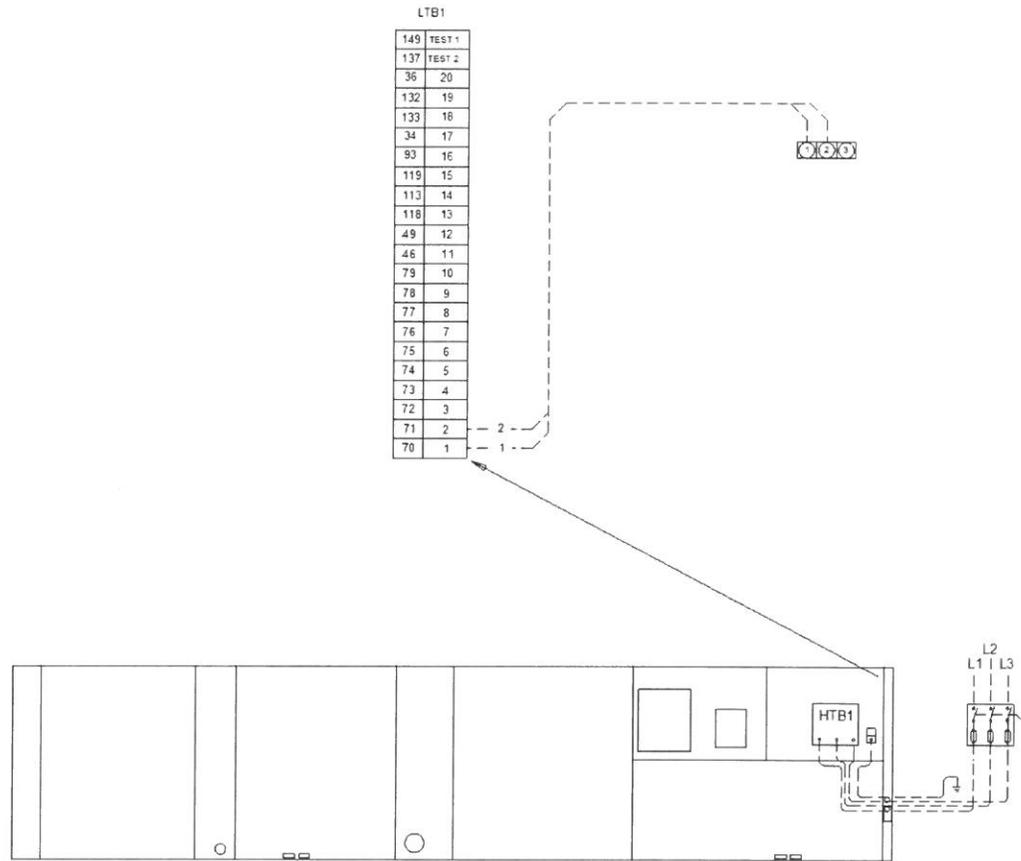
Accessory - Packaged Rooftop, Cooling / Heating Units
Item: B1 Qty: 1 Tag(s): RTU-1



FRESH AIR HOODS FOR DOWNFLOW AND HORIZONTAL
UNIT DETAIL

Field Wiring - Packaged Rooftop, Cooling / Heating Units

Item: B1 Qty: 1 Tag(s): RTU-1



ZONE SENSOR WIRE TABLE

WIRE SIZE	MAXIMUM WIRE LENGTH	in
22 GAUGE	1800"	
20 GAUGE	3000"	
18 GAUGE	4500"	
16 GAUGE	7200"	
14 GAUGE	11700"	

NOTE:

1. All wiring and devices shown dashed to be supplied and installed by the customer in accordance with national and local electrical codes.
2. Low voltage control wiring must not be run in conduit with power wiring.
3. Cut wire jumper adjacent to the terminal 1 on zone sensor.

Field Installed Options - Part/Order Number Summary

This is a report to help you locate field installed options that arrive at the jobsite. This report provides part or order numbers for each field installed option, and references it to a specific product tag. It is NOT intended as a bill of material for the job.

Product Family - Variable Air Volume Single Duct Terminal Units

Item	Tag(s)	Qty	Description	Model Number
A1	VAV-1 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA04521**00500000
A2	VAV-2 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA03011**00500000
A3	VAV-3 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA04521**00500000
A4	VAV-4 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA02511**00500000
A5	VAV-5 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A6	VAV-6 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A7	VAV-7 EH	1	Variable Air Volume Single Duct Terminal	VCEF05-- *M0SY74A**0*0F2WWA02511**00500000
A8	VAV-9 EH	1	Variable Air Volume Single Duct Terminal	VCEF06-- *M0SY74A**0*0F2WWA03011**00500000
A9	VAV-10 EH	1	Variable Air Volume Single Duct Terminal	VCEF08-- *M0SY74A**0*0F2WWA05021**00500000
A10	VAV-8 EH	1	Variable Air Volume Single Duct Terminal	VCEF16-- *M0SY74A**0*0F2WWB15011**00500000
A11	VAV-11 EH	1	Variable Air Volume Single Duct Terminal	VCEF12-- *M0SY74A**0*0F2WWA08021**00500000

Field Installed Option Description	Part/Ordering Number
Digital display zone sensor	X13790886010



07-11-2022

Bid Bond in Accordance with Contract Specifications

SLA07111811

Beacon Air Conditioning, Heating & Refrigeration, Inc.

Bond Number

Principal Name

315 E 3rd Street, Kenner, LA, 70062, US

Principal Address

Principal Signature

Jefferson Parish

200 Derbigny Street, Gretna, LA, 70053, US

Owner/Obligee Name

Owner/Obligee Address

Bond Information

07-28-2022

Western Surety Company

22976

Bid Date

Surety

Contractor Vendor ID Number

50-000138581

Contract ID Number

Replace One Multi Zone DXHandler at First Parish Court for Jefferson Parish Dept General Services Air Handler

Description of Job

Five Percent

5%

Amount of Bid Security

Bid Security Maximum

Bid Security Percentage

David B Tidmore

Attorney-in-Fact

T&T Agency, LLC

Bond Entered and Executed By

Primary Agency

Attorney-In-Fact Signature

Know all men by these presents that Western Surety Company, a Corporation duly organized under the laws of the State of SD, are held and firmly bound unto the above owner/obligee by the transmission. The surety agrees to waive the statute of Fraud defense and further agrees that the owner/obligee is a third party beneficiary of the waiver for the purposes of enforcing this bid bond.



Bond Execution Confirmation

Surety 2000 <info@surety2000.com>

Mon 7/11/2022 2:14 PM

To: Wendy Chatelain <wendy@beaconac.com>

 1 attachments (344 KB)

Bond PDF;

Dear Beacon Air Conditioning, Heating & Refrigeration, Inc.,

Bond number SLA07111811 has been executed successfully. Please click the link below to view details

<https://dashboard.surety2000.com/bond/638077>

Kind regards,

The Surety2000 Team

Non-Public Works Bid

AFFIDAVIT

STATE OF LA

PARISH/COUNTY OF Jefferson

BEFORE ME, the undersigned authority, personally came and appeared: _____

Wendy Chatelain, (Affiant) who after being by me duly sworn, deposed and said that he/she is the fully authorized Owner/officer of Beacon ALC (Entity), the party who submitted a bid in response to Bid Number 50-00138581 to the Parish of Jefferson.

Affiant further said:

Campaign Contribution Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A

Attached hereto is a list of all campaign contributions, including the date and amount of each contribution, made to current or former elected officials of the Parish of Jefferson by Entity, Affiant, and/or officers, directors and owners, including employees, owning 25% or more of the Entity during the two-year period immediately preceding the date of this affidavit or the current term of the elected official, whichever is greater. Further, Entity, Affiant, and/or Entity Owners have not made any contributions to or in support of current or former members of the Jefferson Parish Council or the Jefferson Parish President through or in the name of another person or legal entity, either directly or indirectly.

Choice B

there are NO campaign contributions made which would require disclosure under Choice A of this section.

Debt Disclosures

(Choose A or B, if option A is indicated please include the required attachment):

Choice A _____ Attached hereto is a list of all debts owed by the affiant to any elected or appointed official of the Parish of Jefferson, and any and all debts owed by any elected or appointed official of the Parish to the Affiant.

Choice B _____ There are NO debts which would require disclosure under Choice A of this section.

Affiant further said:

That Affiant has employed no person, corporation, firm, association, or other organization, either directly or indirectly, to secure the public contract under which he received payment, other than persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project or in securing the public contract were in the regular course of their duties for Affiant; and

[The remainder of this page is intentionally left blank.]

That no part of the contract price received by Affiant was paid or will be paid to any person, corporation, firm, association, or other organization for soliciting the contract, other than the payment of their normal compensation to persons regularly employed by the Affiant whose services in connection with the construction, alteration or demolition of the public building or project were in the regular course of their duties for Affiant.

Wendy Chatelain
Signature of Affiant

Wendy Chatelain
Printed Name of Affiant

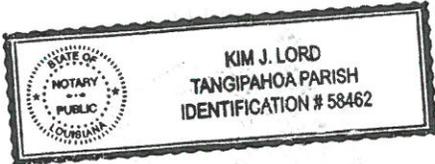
SWORN AND SUBSCRIBED TO BEFORE ME
ON THE 26 DAY OF July, 2022

[Signature]
Notary Public

Kim J. Lord
Printed Name of Notary

58462
Notary/Bar Roll Number

My commission expires AT MY DEATH





July 28, 2022

To Whom It May Concern:

Below is a listing of Beacon Air Conditioning's contributions for Jefferson Parish campaigns:

<u>Campaign For</u>	<u>Check No.</u>	<u>Dated</u>	<u>Amount</u>
Dominick Impastato	32363	7/05/2017	\$300.00
Dominick Impastato	34304	9/04/2019	\$200.00
Jennifer Van Vrancken	34301	8/30/2019	\$200.00
Cynthia Lee Sheng	Credit Card	11/29/2021	\$500.00

Should you have any questions or require additional information, please do not hesitate to contact the undersigned.

Regards,

Beacon Air Conditioning, Heating & Refrigeration, Inc.

Wendy Chatelain
Owner/Secretary-Treasurer

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF
Beacon Air Conditioning, Heating & Refrigeration, Inc.
INCORPORATED.

AT THE MEETING OF DIRECTORS OF Beacon A/C, Htg & Refrig., Inc.
INCORPORATED, DULY NOTICED AND HELD ON July 25, 2022,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT
WAS:

RESOLVED THAT Wendy Chatelain, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-
FACT OF THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON
BEHALF OF THIS CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS
AND TRANSACTIONS WITH THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES,
DEPARTMENTS, EMPLOYEES OR AGENTS, INCLUDING BUT NOT LIMITED TO, THE
EXECUTION OF ALL BIDS, PAPERS, DOCUMENTS, AFFIDAVITS, BONDS, SURETIES,
CONTRACTS AND ACTS AND TO RECEIVE ALL PURCHASE ORDERS AND NOTICES
ISSUED PURSUANT TO THE PROVISIONS OF ANY SUCH BID OR CONTRACT, THIS
CORPORATION HEREBY RATIFYING, APPROVING, CONFIRMING, AND ACCEPTING
EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT AND ATTORNEY-IN-
FACT.

I HEREBY CERTIFY THE FOREGOING TO BE
A TRUE AND CORRECT COPY OF AN
EXCERPT OF THE MINUTES OF THE ABOVE
DATED MEETING OF THE BOARD OF
DIRECTORS OF SAID CORPORATION, AND
THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.



Wendy Chatelain

SECRETARY-TREASURER

7/25/2022

DATE

State of  Louisiana

State Licensing Board for Contractors

This is to Certify that:

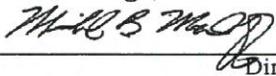
BEACON AIR CONDITIONING, HEATING AND REFRIGERATION, INC.
315 E. 3rd Street
Kenner, LA 70062

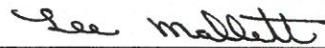
is duly licensed and entitled to practice the following classifications

MECHANICAL WORK (STATEWIDE)



Witness our hand and seal of the Board dated,
Baton Rouge, LA 16th day of July 2020


Director


Chairman


Treasurer

Expiration Date: July 15, 2023

License No:35350

This License Is Not Transferrable



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
07/22/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Riverlands Insurance Services Inc. 492 West 5th Street LaPlace LA 70068		CONTACT NAME: Kattie Troxler, CISR, CIC PHONE (A/C, No, Ext): (985) 652-5505 E-MAIL ADDRESS: ktroxler@rivins.com FAX (A/C, No): (985) 652-4039	
INSURED Beacon Air Conditioning, Heating & Refrigeration, Inc. 315 E 3rd Street Kenner LA 70062		INSURER(S) AFFORDING COVERAGE	
		INSURER A: Wesco Insurance Company	NAIC # 25011
		INSURER B: Technology Insurance Co, Inc.	42376
		INSURER C:	
		INSURER D:	
		INSURER E:	
		INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** 21-22 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	WPP1931637 00	10/29/2021	10/29/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Employee Benefits \$ 1,000,000
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			WUM1849930 01	10/29/2021	10/29/2022	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y <input checked="" type="checkbox"/> N/A If yes, describe under DESCRIPTION OF OPERATIONS below			TWC4020840	10/29/2021	10/29/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Bid # 50-00138581

Full Certificate Holder: THE PARISH OF JEFFERSON, ITS DISTRICTS, DEPARTMENTS AND AGENCIES UNDER THE DIRECTION OF THE PARISH PRESIDENT AND THE PARISH COUNCIL

General Aggregate Limit applies per project. Cert Holder is listed as an additional insured and a Waiver of Subrogation is provided in favor of the certificate holder with respects to the GL policy.

CERTIFICATE HOLDER

CANCELLATION

Jefferson Parish - First Parish Court 924 David Drive Metairie LA 70003	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Kattie B. Troxler</i>
---	---

© 1988-2015 ACORD CORPORATION. All rights reserved.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
07/22/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Hylton Petit Jr 2705 Florida Avenue Kenner LA 700625416	CONTACT NAME: Hylton Petit Jr PHONE (A/C, No, Ext): 504-461-0171 E-MAIL ADDRESS:	FAX (A/C, No):
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: State Farm Mutual Automobile Insurance Company	25178
INSURED BEACON A/C, HEATING & REFRIGERATION INC 315 E 3RD ST KENNER LA 70062-7103	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADD INSD	SUB WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY <input type="checkbox"/>			370 6777-A09-18S	07/09/2022	01/09/2023	COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ 1,000,000 PROPERTY DAMAGE (Per accident) \$ 1,000,000 \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y/N N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE OTH-ER \$ E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER <i>For verification purposes.</i>	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE This form was system-generated on <u>July 22, 2022</u> . To obtain a signed form, please contact your Agent.

© 1988-2015 ACORD CORPORATION. All rights reserved.