MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2025-258
Item to be Scouted	BABA Compliant Fan Coil Units
Days to be scouted	7
Response Due By	08/14/2025
Description	BABA Compliant factory-assembled and tested, self-contained, packaged terminal air conditioner with room cabinet, electric refrigeration system, heating, and temperature controls, fully charged with refrigerant and filled with oil; with

Section 2: Technical Information

Type of supplier being sought	Other
Details	Manufacturer/Distributor
Reason	BABA
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Domestic components in each of the BABAA compliant manufactured products must exceed 55% of the total component cost and be assembled in the United States.
Provide dimensions / size / tolerances / performance specifications for the item	See attached specs and mechanical schedule for more information.
List required materials needed to make the product, including materials of product components	See attached specs and mechanical schedule for more information.
Are there applicable certification requirements?	Yes
Details	Build America, Buy America Act (BABAA) compliant. Must be able to submit BABAA manufactured product self-certification manufactured product letter that details a compliant product.
Are there applicable regulations?	Yes
Details	Build America, Buy America Act (BABAA) compliant. Must be able to submit BABAA manufactured product self-certification manufactured product letter that details a compliant product.
Are there any other stndards, requirements, etc.?	No
Additional Technical Comments	See attached specs and mechanical schedule for more information.

Section 4: Business Information

Estimated potential business volume	TBD post selection as the project is still finalizing design.
Estimated target price / unit cost information (if unavailable explain)	TBD post selection. Cost should be the best available, and cannot increase the project cost by 25%.
When is it needed by?	Between Q1 and Q2 of 2026.
Describe packaging requirements	No specific requirements. Must arrive undamaged and in working condition.
Where will this item be shipped?	Broomfield, Colorado

Additional Comments

Is there other information you would like to include?	Nationwide Search Provide written documentation in response to the Supplier Scouting request of being a current Build America Buy America Act compliant Fan Coil Unit manufacturer with experience in manufacturing the system components, meeting the product performance requirements. Information on BABAA compliance requirements can be found at the Made in America Office link https://www.madeinamerica.gov/.

VENTILATION SCHEDULE - BUILDING C - COMMERCIAL

ZONE	PER 2021 IMC										
	Az AREA (SF)	Rp	Ra	OCC Dens. # / 1000SF	Pz (Occupants)	Vbz	Ez	Voz	Vpz	Zp	TOTALS
FCU-1-1 (Single Zone)											
GATHERING (Reception)	498	5	0.06	30	15	105	0.8	131	n/a	n/a	-
										SYSTEM Vot	131
										SYSTEM OA SUPPLY	**140**
FCU-1-2 (Multiple Zone)											
OFFICES	405	5	0.06	5	3	39	0.8	49	430	0.11	-
CORRIDOR	105	0	0.06	0	0	6	0.8	8	50	0.16	-
MAIL AREA	165	5	0.06	2	1	15	0.8	19	120	0.16	-
										SYSTEM Vou	76
										SYSTEM Ev	0.8
										SYSTEM Vot	95
										SYSTEM OA SUPPLY	**95**
FCU-2-1 (Multiple Zone)											
OPEN FLEX OFFICE	191	5	0.06	20	4	31	0.8	39	300	0.13	-
OFFICES	120	5	0.06	5	1	12	0.8	15	100	0.15	-
LAUNDRY AREA	229	5	0.06	2	1	19	0.8	23	240	0.10	-
CORRIDOR	130	0	0.06	0	0	8	0.8	10	60	0.16	-
										SYSTEM Vou	88
										SYSTEM Ev	0.8
										SYSTEM Vot	110
										SYSTEM OA SUPPLY	**110**

Vbz = Rp * Pz + Ra * Az
Rp = OUTDOOR AIRFLOW RATE PER PERSON (CFM/ PERSON)
Ra = OUTDOOR AIRFLOE RATE REQUIRED PER UNIT AREA (CFM/ SQFT)
Az = ZONE FLOOR AREA (sqft)
Pz = ZONE POPULATION; OCCUPANTS
Vbz (CFM) = BREATHING ZONE OUTDOOR AIR FLOW
Voz = Vbz/ Ez
Ez = ZONE AIR DISTRIBUTION EFFECTIVENESS
Voz (CFM) = ZONE OUTDOOR AIR FLOW
Vot (CFM) = REQUIRED OUTDOOR AIR INTAKE FLOW
Vot = Voz (FOR SINGLE ZONE SYSTEMS)
Vpz = ZONE PRIMARY AIRFLOW
Zp = PRIMARY OUTDOOR AIR FRACTION
Zp = Voz/ Vpz
Ev = SYSTEM VENTILATION EFFICIENCY
Vou = SUM OF Voz ZONES
Vou = UNCORRECTED OUTDOOR AIR INTAKE
Vot = Vou / Ev (FOR MULTIPLE ZONE SYSTEMS)

** FLOOR AREA BASED ON NET OCCUPIABLE AREA.

VERTICAL TERMINAL AIR CONDITIONING UNIT SCHEDULE - RESIDENTIAL

REMARKS:
(1) OUTSIDE AIR OPENING INTO THE UNIT TO BE BLOCKED OFF.
(2) CONDENSATE DISPOSAL TO BE ACCOMPLISED WITH SLINGER RING AND PIPED CONDENSATE PER PLUMBING DRAWINGS.
(3) PROVIDE ARCHITECTURAL LOUVER, ADJUSTABLE WALL PLENUM, FILTER, & FACTORY WIRED PROGRAMMABLE 7-DAY THERMOSTAT.
(4) PROVIDE MASON NEOPRENE PAD (TYPE SW). FOUR 30 DUROMETER PADS INSTALLED AT THE FOUR CORNERS OF UNIT.
(5) LOUVERED DOOR PER ARCHITECT FOR ACCESS AND RETURN AIR.

PLAN MARK	MANUFACTURER	MODEL #	AIRFLOW HI/LOW (CFM)	ESP (inH20)	FAN POWER (WATTS)	DX COOLING			HEATING CAPACITY		ELEC HEAT (WATTS)	ELECTRICAL DATA				OPERATING WEIGHT (LBS)	REMARKS
						TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	SEER2 / EER2	TOTAL HEATING (MBH @ 47°F)	COP AT 47°F		VOLT	PH	MCA	MOCP		
VTHP-A	FRIEDRICH	VRP12K	420	0.3	1,106	11.5	8.5	14.7 / 10.4	11.2	3.4	3,500	208	1	25.5	30	215	(1)(2)(3)(4)(5)
VTHP-B	FRIEDRICH	VRP24K	620	0.3	2,925	23.4	17.3	13.7 / 8.0	21.0	3.1	5,600	208	1	40.3	45	255	(1)(2)(3)(4)(5)

VENTILATION SCHEDULE - RESIDENTIAL

PER 2021 IMC 403.3.2.1

UNIT	AREA (SQFT)	# BEDROOMS	OSA REQUIRED (CFM)	OSA SUPPLIED VIA CONTINIOUS EXHAUST EF-A (CFM)
UNIT TYPE 1	582	1	20.8	35
UNIT TYPE 1A	582	1	20.8	35
UNIT TYPE 2	802	2	30.5	35
UNIT TYPE 2A	802	2	30.5	35
UNIT TYPE 3	850	2	31.0	35
UNIT TYPE 4	837	2	30.9	35

FAN SCHEDULE - RESIDENTIAL

REMARKS:
(1) PROVIDE CEILING MOUNT ACCESSORIES, WALL CAP, EC MOTOR & BACKDRAFT DAMPER.
(2) PROVIDE RADIATION DAMPER.
(3) FAN SHALL TO BE CONTROLLED BY SEPARATE SWITCH.
(4) FAN SHALL BE PROVIDED WITH MULTI-SPEED CONTROL MODULE. FAN TO OPERATE CONTINIOUSLY AT LOW CFM AND SWITCH TO HIGH CFM WITH A SEPARATE WALL SWITCH.
(5) INTERLOCK FAN OPERATION WITH SMOKE DETECTOR. FAN TO SHUT DOWN IN CASE OF TRIGGERED SMOKE/FIRE ALARM. SEE DETAILS.
(6) ENERGY STAR RATED FAN.

PLAN MARK	MANUFACTURER	MODEL #	STYLE	AIRFLOW			SONES	ELECTRICAL DATA				OPERATING WEIGHT (LBS)	REMARKS
				CFM	ESP (inH20)	RPM		VOLT	PH	MOTOR SIZE (WATTS)			
EF-A	PANASONIC	FV-0810VSS1	CEILING W/ RAD DAMPER	35/75	0.25"	900	0.4	120	1	5.1		20	(1)(2)(4)(5)(6)
EF-B	PANASONIC	FV-05-11VK2	CEILING W/ RAD DAMPER	100	0.25"	900	0.4	120	1	7.9		20	(1)(2)(3)(5)(6)
EF-C	PANASONIC	FV-05-11VK2	CEILING W/ RAD DAMPER	75	0.25"	900	0.4	120	1	5.1		20	(1)(2)(3)(5)(6)

AIR DEVICE SCHEDULE - RESIDENTIAL

REMARKS:
(1) VERIFY FINISH TYPE & COLOR WITH ARCHITECT / ID PRIOR TO SUBMITTING FOR APPROVAL.
(2) COORDINATE FRAME SELECTION WITH FINAL RCP.
(3) PROVIDE ROUND COLLAR ADAPTER.
(4) PROVIDE WITH RADIATION DAMPER COMPLIANT WITH UL LISTING SHOWN ON ARCHITECTURAL DRAWINGS.

PLAN MARK	MANUFACTURER	MODEL #	NOMINAL SIZE	CONNECTION SIDE (IN)	FACE PATTERN	DAMPER	MATERIAL	FINISH	NC MAX (dB)	REMARKS
A	SHOEMAKER	951	12"x6"	NOTED	LOUVERED	RAD DAMPER	STL	WHITE	<35	(1)(2)(3)(4)
B	SHOEMAKER	951	8"x4"	NOTED	LOUVERED	RAD DAMPER	STL	WHITE	<35	(1)(2)(3)(4)
C	SHOEMAKER	1050	20"x10"	NOTED	LOUVERED	NONE	STL	WHITE	<35	(1)

FAN SCHEDULE - COMMON AREA

REMARKS:
(1) PROVIDE CEILING MOUNT ACCESSORIES, WALL CAP, EC MOTOR & BACKDRAFT DAMPER.
(2) FAN SHALL INTERLOCKED WITH LIGHTING CONTROL.
(3) ENERGY STAR RATED AND CERTIFIED FAN.

PLAN MARK	MANUFACTURER	MODEL #	STYLE	AIRFLOW			SONES	ELECTRICAL DATA			OPERATING WEIGHT (LBS)	REMARKS
				CFM	ESP (inH20)	RPM		VOLT	PH	MOTOR SIZE (WATTS)		
EF-1-1	PANASONIC	FV-0511VK2	CEILING	75	0.3	900	4.0	120	1	7	12	(1)(2)(3)
EF-1-2	PANASONIC	FV-0511VK2	CEILING	75	0.3	900	4.0	120	1	7	12	(1)(2)(3)
EF-1-3	PANASONIC	FV-0511VK2	CEILING	75	0.3	900	4.0	120	1	7	12	(1)(2)(3)

HEAT PUMP CONDENSING UNIT SCHEDULE - COMMON AREA

REMARKS:
(1) PROVIDE UNIT WITH 18" HIGH QUICK SLING. PROVIDE VIBRATION ISOLATION MOUNTING PADS.
(2) UNIT TO BE PROVIDED WITH HARD-START KIT, MFR TXV KIT, LOW-AMBIENT HEATING KIT + OUTDOOR THERMOSTAT, AND EMERGENCY HEAT RELAY KIT SET TO ENERGIZE AT 17F (ADJ)
(3) REFRIGERANT PIPING TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
(4) EQUIPMENT USES R-454B CLASS A2L REFRIGERANT AND IS EQUIPPED WITH A REFRIGERANT DETECTION SYSTEM.

PLAN MARK	MANUFACTURER	MODEL #	COOLING		HEATING			SEER2 / EER2	ELECTRICAL DATA					REMARKS
			TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	MBH AT 47°F	MBH AT 30°F	COP /		VOLT.	PH	FLA	MCA	MOCP	
HP-1-1	CARRIER	37MURAQ18AA3	18.0	15.1	18.0	12.6	3.15	18.8 / 11	208	1	1.0	16.0	20	(1)(2)(3)(4)
HP-1-2	CARRIER	37MURAQ18AA3	18.0	15.1	18.0	12.6	3.15	18.8 / 11	208	1	1.0	16.0	20	(1)(2)(3)(4)
HP-2-1	CARRIER	37MURAQ24AA3	24.0	19.2	24.0	20.0	3.18	18.2 / 11	208	1	1.3	19.0	20	(1)(2)(3)(4)
HP-2-2	CARRIER	37MURAQ24AA3	24.0	19.2	24.0	20.0	3.18	18.2 / 11	208	1	1.3	19.0	20	(1)(2)(3)(4)

NOTE:
ALL MATERIAL AND PRODUCTS SHALL COMPLY WITH THE BUILD AMERICA, BUY AMERICA ACT (THE ACT) AS REQUIRED BY HUD. PROVIDE A DOMESTIC CONTENT PROCUREMENT PREFERENCE FOR ALL FEDERAL FINANCIAL ASSISTANCE OBLIGATED FOR INFRASTRUCTURE PROJECTS AFTER MAY 14, 2022. REQUIRE A PERCENTAGE OF IRON, STEEL, MANUFACTURED PRODUCTS, AND CONSTRUCTION MATERIALS THAT ARE USED IN COVERED INFRASTRUCTURE PROJECTS, TO BE PRODUCED IN THE UNITED STATES. INFRASTRUCTURE PROJECTS THAT CANNOT PROCURE MATERIALS DOMESTICALLY WILL REQUIRE A WAIVER SUBMISSION PURSUANT TO SECTION 70914(C). LINK: HUD.GOV/BABA. CONTRACTOR TO CONTACT HUD TO FIND OUT SPECIFIC MATERIALS AND PRODUCTS PERCENTAGE, TRACKING OR ANY OTHER MANDATORY REQUIREMENTS BY THE ACT AND COMPLY WITH THESE.

HEAT PUMP ELECTRIC HEAT/DX FAN COIL UNIT SCHEDULE - COMMON AREA

REMARKS:
(1) SELECTION BASED ON 5400 FT ELEVATION
(2) REFERS TO MULTI-POSITION MOUNT FCU STYLE WITH HORIZONTAL INSTALLATION.
(3) REFERS TO MULTI-POSITION MOUNT FCU STYLE WITH VERTICAL INSTALLATION.
(4) PROVIDE WITH LOCKABLE 7 DAY PROGRAMMABLE T-STATS, AND CONDENSATE PUMPS AS REQUIRED
(5) UNIT HEAT SPECIFIED AT 240V WITH 208V PERFORMANCE & DERATE SHOWN FOR ELECTRICAL DATA. ELECTRIC MBH HEAT OUTPUT FOR UNIT IS SCHEDULED.
(6) PROVIDE SEPARATE POWER SUPPLY FOR ELECTRIC HEAT. ELECTRICAL DATA SHOWN WITH 1 CIRCUIT.
(7) INDOOR UNIT POWERED SEPARATE FROM OUTDOOR UNIT.
(8) EQUIPMENT USES R-454B CLASS A2L REFRIGERANT AND IS EQUIPPED WITH A REFRIGERANT DETECTION SYSTEM.
(9) PROVIDE WITH TEMPERATUR SENSOR. MOUNT TEMPERATURE SENSOR IN RETURN AIR DUCTWORK. PROVIDE 120V F/S DAMPERS AT RATED WALL PENETRATION.

PLAN MARK	MANUFACTURER	MODEL #	AIRFLOW (CFM)	ESP (inH2O)	MOTOR (HP)	DX COOLING			DX HEATING		ELECTRIC HEAT			ELECTRICAL DATA				REMARKS
						EDB (°F)	EWB (°F)	TC (MBH)	EDB (°F)	TH (MBH)	STAGES	CAPACITY (WATTS)	CAPACITY (MBH)	VOLT	PH	MCA	MOCP	
FCU-1-1	CARRIER	45MUAAQ18XX3	600	0.5	1/4	80	67	18.0	55	18.0	2	5,000	17.0	208 V	1	23	25	(1)(2)(4)(5)(6)(7)(8)
FCU-1-2	CARRIER	45MUAAQ18XX3	600	0.5	1/4	80	67	18.0	55	18.0	2	5,000	17.0	208 V	1	23	25	(1)(3)(4)(5)(6)(7)(8)
FCU-2-1	CARRIER	45MUAAQ24XX3	800	0.5	1/4	80	67	24.0	55	24.0	2	8,000	27.2	208 V	1	37	40	(1)(3)(4)(5)(6)(7)(8)
FCU-2-2	CARRIER	45MUAAQ24XX3	800	0.5	1/4	80	67	24.0	55	24.0	2	8,000	27.2	208 V	1	37	40	(1)(3)(4)(5)(6)(7)(8)(9)

AIR DEVICE SCHEDULE - COMMON AREA

REMARKS:
(1) VERIFY FINISH TYPE & COLOR WITH ARCHITECT / ID PRIOR TO SUBMITTING FOR APPROVAL.
(2) COORDINATE FRAME SELECTION WITH FINAL RCP.
(3) PROVIDE ROUND COLLAR ADAPTER.
(4) PROVIDE WITH FILTER FRAME WITH HINGED ACCESS AND FILTER.
(5) PROVIDE WITH RADIATION DAMPER COMPLIANT WITH UL LISTING SHOWN ON ARCHITECTURAL DRAWINGS.

PLAN MARK	MANUFACTURER	MODEL #	NOMINAL SIZE	CONNECTION SIDE (IN)	FACE PATTERN	DAMPER	MATERIAL	FINISH	NC MAX (dB)	REMARKS
A	PRICE	520	12"x6"	NOTED	LOUVERED	OBD	STL	MILL	<35	(1)(5)
B	PRICE	SCD	12"x12"	8"	SQUARE CONE	OBD	STL	WHITE	<35	(1)(2)(3)(5)
C	PRICE	530	18"x18"	NOTED	PERFORATED	NONE	STL	WHITE	<35	(1)(4)
D	PRICE	530	18"x10"	NOTED	LOUVERED	NONE	STL	WHITE	<35	(1)(4)
E	PRICE	530	12"x8"	NOTED	LOUVERED	NONE	STL	WHITE	<35	(1)(4)

ELECTRIC UNIT HEATER SCHEDULE - COMMON AREA

REMARKS:
(1) PROVIDE WITH FACTORY MOUNTING ACCESSORIES. VERIFY MOUNTING HEIGHTS PRIOR TO FIELD INSTALLATION.
(2) UNITS TO BE PROVIDED WITH BUILT-IN FAN DELAY/ AUTO THERM PROTECTION.
(3) REFERS TO 12" TALL, 0" CLEARANCE PLENUM HEATER.
(4) INTEGRAL T-STAT TO ENERGIZE HEATER AT A TEMPERATURE AT 68°F (ADJ) OR BELOW.
(5) INTEGRAL T-STAT TO ENERGIZE HEATER AT A TEMPERATURE AT 42°F (ADJ) OR BELOW.
(6) PROVIDE 2" DEEP MOUNTING FRAME FOR SEMI RECESSED INSTALLATION: MODEL: FRAS2.

PLAN MARK	MFR	MODEL	STYLE	CONTROL	ELECTRICAL DATA			OPERATING WEIGHT (LBS)	REMARKS
					VOLT	PH	WATTS		
HUH-1-1	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
HUH-1-2	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
HUH-1-3	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
HUH-1-4	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
HUH-1-5	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
HUH-1-6	BERKO	HUHAA320	HUNG UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	24	(1)(2)(4)
PUH-1-1	BERKO	BPH138124	PLENUM UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	49	(1)(2)(3)(5)
PUH-1-2	BERKO	BPH138124	PLENUM UNIT HEATER	INTEGRAL TSTAT	208 V	1	3,000	49	(1)(2)(3)(5)
WUH-1-1	BERKO	FRC1812F	WALL UNIT HEATER	INTEGRAL TSTAT	120 V	1	1,800	20	(2)(4)(6)
WUH-1-2	BERKO	FRC1812F	WALL UNIT HEATER	INTEGRAL TSTAT	120 V	1	1,800	20	(2)(4)(6)
WUH-1-3	BERKO	FRC1812F	WALL UNIT HEATER	INTEGRAL TSTAT	120 V	1	1,800	20	(2)(4)(6)

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MECHANICAL & ELECTRICAL ENGINEERS
Ph: 303.716.1270
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Given Project # 24066

BHA - THE GROVE AT COTTONWOOD
1355 COTTONWOOD ST., BROOMFIELD, CO 80020

COLORADO LICENSED
JEFFREY K. GIVEN
32961
PROFESSIONAL ENGINEER
06/10/2025

DATE	ISSUANCE
6.06.2025	ISSUED FOR CONSTRUCTION

REVISIONS

REV#	DATE	DESCRIPTION
1	01.07.2025	Permit 1st Review

MECHANICAL SCHEDULES

M003

Division 23 - HVAC

SECTION 238113 - PACKAGED TERMINAL HEAT PUMPS (PTAC AND VTAC)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 **SUMMARY**

A. Section includes packaged terminal air conditioners and their accessories and controls, in the following configurations:

1. Through-the-wall and freestanding heat pump air conditioners with electric heat.
2. Vertical heat pump air conditioners with electric heat

1.3 **SUBMITTALS**

A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, furnished specialties, electrical characteristics, and accessories.
B. Operation and Maintenance Data: For packaged terminal air conditioners to include in emergency, operation, and maintenance manuals.
C. Warranty: Sample of special warranty.

1.4 **QUALITY ASSURANCE**

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
B. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 4 - "Outdoor Air Quality," Section 5 - "Systems and Equipment," Section 6 - "Ventilation Rate Procedures," and Section 7 - "Construction and Startup."
C. ASHRAE/IESNA Compliance: Applicable requirements in ASHRAE/IESNA 90.1

1.5 **COORDINATION**

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

1.6 **WARRANTY**

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of packaged terminal air conditioners that fail in materials or workmanship within specified warranty period.

1. Warranty Period for Sealed Refrigeration System: Manufacturer's standard, but not less than five years from date of Substantial Completion, including components and labor.
2. Warranty Period for Nonsealed System Parts: Manufacturer's standard, but not less than 3 years from date of Substantial Completion, including only components and excluding labor.
3. Warranty Period for Heat Exchangers: Manufacturer's standard, but not less than five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements:

1. Friedrich.
2. Amana.

2.2 MANUFACTURED UNITS

A. Description: Factory-assembled and -tested, self-contained, packaged terminal air conditioner with room cabinet, electric refrigeration system, heating, and temperature controls; fully charged with refrigerant and filled with oil; with hardwired chassis.

2.3 CHASSIS

A. Cabinet: 0.052-inch- thick steel with removable front panel with concealed latches.

1. Finish: Baked enamel.
2. Access Door: Hinged door in top of cabinet for access to controls.
3. Cabinet Extension: Matching cabinet in construction and finish, allowing diversion of airflow to adjoining room; with grille.
4. Finish of Interior Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.
5. Subbase: Enameled steel with adjustable leveling feet and adjustable end plates.
6. Wall Sleeves: Galvanized steel with polyester finish.

B. Heat Pump Refrigeration System: Direct-expansion heat pump indoor coil with capillary restrictor; and hermetically sealed scroll compressor with vibration isolation and overload protection.

1. Indoor and Outdoor Coils: Seamless copper tubes mechanically expanded into aluminum fins.
2. Charge: R-410A

C. Indoor Fan: Forward curved, centrifugal; with motor and positive-pressure ventilation damper with concealed manual operator.

D. Filters: Washable polyurethane in molded plastic frame.

1. Indoor and Outdoor Fan Motors: One speed; comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Division 23 Section "Common Motor Requirements for HVAC Equipment."

    a. Fan Motors: Permanently lubricated split capacitor.
    b. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
    c. Controllers, Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in Division 26 Sections.

2.4 HEATING

A. Electric-Resistance Heating Coil: Nickel-chromium-wire, electric-resistance heating elements with contactor and high-temperature-limit switch.

2.5 CONTROLS

A. Control Module: Unit-mounted digital panel with touchpad temperature control and with touchpad for heating, cooling, and fan operation. Include the following features:

1. Low Ambient Lockout Control: Prevents cooling-cycle operation below 40 deg F outdoor air temperature.
2. Temperature-Limit Control: Prevents occupant from exceeding preset setup temperature.
3. Building Automation System Interface: Allows remote on-off control with setback temperature control.
4. Reverse-Cycle Defrost: Solid-state sensor monitors frost buildup on indoor coil and reverses unit to melt frost.

B. Remote Control: Standard unit-mounted controls with remote-mounted, low-voltage adjustable thermostat with heat anticipator, heat-off-cool-auto switch, and fan switch.

C. Outdoor Air: Manual intake damper.

2.6 SOURCE QUALITY CONTROL

A. Sound-Power Level Ratings: Factory test to comply with ARI 300, "Sound Rating and Sound Transmission Loss of Packaged Terminal Equipment."

B. Unit Performance Ratings: Factory test to comply with ARI 310/380/CSA C744, "Packaged Terminal Air-Conditioners and Heat Pumps."

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install units level and plumb, maintaining manufacturer's recommended clearances and tolerances.

3.2 CONNECTIONS

A. Install piping adjacent to machine to allow service and maintenance.

3.3 **ADJUSTING**

A. Adjust initial temperature set points.
B. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

END OF SECTION