



Addendum No. 2

AEROSPACE BUILDING RENOVATION NUNEZ COMMUNITY COLLEGE

3710 Paris Road.

Chalmette, Louisiana 70043

NCC Bid No. 40015-Aerospace Building-2

Studio Kiro Project No. 2305

January 10, 2024

To: All Companies Invited for Bidding for this project

The provisions of this addendum are hereby incorporated into, supplement and become a part of: 1) the proposal, 2) each proposal submitted by each Proposer, and 3) any final contract executed by the parties. Changes made by Addenda shall take precedence over any conflicting provisions in the original documents. The Proposer shall be responsible for notifying the Owner of any changes caused by this Addendum, which may affect other items in the Proposal and, which are not addressed in this Addendum prior to the Submission of a Proposal. Any such condition, which is not addressed in advance and discovered after the Proposals have been received, shall be resolved in a manner acceptable to the Owner without additional cost.

The proposers should acknowledge receipt of all addenda in their proposal.

- Item 1: See Section 01 1000 – Summary Paragraph 1.8.C for material and equipment supplied and to be installed by the General Contractor under this contract.
- Item 2: Remove M1.0 from this set in its entirety and replace it with the attached M1.0 which clarifies Mechanical Equipment to be furnished by Nunez.
- Item 3: See Section 01 1000 – Summary paragraphs 1.6, 1.7, and 1.9 for material and systems supplied and installed by Nunez under separate contracts. The contractor will be responsible for coordinating the installation schedule with Nunez’s separate contractor and coordinating the schedule and the work. Note that both the paint and the painting will be supplied by Nunez under a separate contract.

Further requests for information/clarification responses:

- Item 4: **Question:** Is there a warranty on the Existing Roof? If so, who is the warrantor and which roofer installed it? **Answer:** As indicated in Addendum No. 1, the roof is a recently installed GAF EverGuard TPO Roof system and is still under warranty from GAF. The GAF warranty is 20 years. Additionally, the roof

installer, Pride Roofing, who has a standard roof installer's warranty. General Contractor for this project will be responsible for the labor warranty for the scope related to the roof modifications and maintaining the existing warranty by GAF.

Item 5: **Question:** Please clarify warranties and labor warranties for General Contractor and sub-contractors. Especially on items being supplied by Nunez.

Answer: Materials and labor warranties supplied and installed for this contract will be the responsibility of the manufacturer and General Contractor for this contract.

For materials and equipment to be supplied by Nunez and installed by the General Contractor, the material warranty will be the Manufacturer's responsibility and any warranty for installation shall be the responsibility of the General Contractor for this contract.

For materials and installation installed under a separate contract with Nunez, the material and installation warranties will be the responsibilities of the Manufacturer's and the Nunez's Contractor who executes the separate contract.

Item 6: **Question:** Please clarify if Card Readers are a part of this contract and if so, is the Contractor responsible for? **Answer:** Card readers are not included in this contract.

Item 7: **Question:** Is it possible to use a 16" Joist beam in lieu of a 14" Joist Beam?
Answer: No.

Item 8: **Question:** Please clarify which panels will remain on the roof if any if Alternate 3 is or is not accepted? **Answer:** If Add Alternate No. 3 is accepted, then there will be no work on the roof and any existing electrical panels on the roof will be beyond the scope of the work.

Item 9: **Question:** In regards to the Fire Alarm and Data being furnished and installed by Nunez, Please clarify what will be required by the contractor to accommodate these systems. For example, will we be required to provide conduit and pull strings. Plywood to mount panels? **Answer:** Each special systems device will require a box and pull string to an accessible location above ceiling height. This may require access boxes in areas that have a hard ceiling. Installations in all areas that require surface mounting or exposed to the structure will require a full conduit installation to an accessible unexposed area so that the Owner provided vendor can install j-hooks and route to the fire alarm panel or data system networking rack. The contractor shall be responsible for providing conduit sleeves through any masonry, structure, or

fire barrier. Contractor shall provide plywood backboard as specified and indicated on the plans.

- Item 10: **Question:** HVAC. Please confirm has the Owner has purchased Daikin equipment? **Answer:** Yes, Nunez has purchased the Daikin equipment. See the submittal/cut sheets attached at the end of this addendum showing the VRV Heat Recovery System (Daikin), VRV DOAS System (Daikin), Mini-Split System (Daikin), Ionization (GPS), and Ball Valves (NDL), which are being supplied by Nunez; all other hardware and attachment equipment associated with these Daikin products will be supplied and installed by the General Contractor.
- Item 11: **Question:** For plumbing, is Pex-A piping acceptable? **Answer:** Yes, new Pex-A piping is acceptable.
- Item 12: **Substitution Request:** Subject to the requirements of Section 08 9123 – Fixed Louver Screen, Industrial Louvers Model 450XPI is an approved product for use an approved equal for use as the equipment screen on the equipment platform in Add Alternant No. 3.
- Item 13: **Substitution Request:** A substitution request was submitted for the lighting fixtures. These may or may not be acceptable, but all lighting fixtures will be purchased and supplied by Nunez; the Contractor shall only be responsible for installation of the lighting as indicated in the Drawings.
- Item 14: **Substitution Request:** A substitution request (FireFinder XLSV) was submitted for the fire alarm system and is acceptable. The fire alarm system will be supplied and installed by Nunez' under separate contract.
- Item 15: The pre-bid conference was not mandatory.
- Item 16: There is no ceramic tile installation for this project.
- Item 17: The Air compressor will be supplied by Nunez and, if addendum No. 3 is not accepted, Nunez will install a ground level platform to locate the compressor. General Contractor to provide electrical services and the piping/hoses connection between the equipment and the compressor.

END OF ADDENDUM

VARIABLE REFRIGERANT FLOW DX HEAT PUMP SYSTEMS *** EQUIPMENT TO BE FURNISHED BY NUNEZ COMMUNITY COLLEGE, INSTALLED BY THE CONTRACTOR***														OUTDOOR UNIT										NOTES		
INDOOR UNIT														MARK	WEIGHT (LBS)	LOCATION	IEER	COOLING CAP. (MBH)	HEATING CAP @ 30 DEG F (MBH)	COMPRESSOR DATA		ELECTRICAL DATA			BASIS OF DESIGN (DAIKIN)	
MARK	WEIGHT LBS.	LOCATION	TYPE	CFM (MAX / MIN)	COOLING		HEATING			ELECTRICAL DATA			BASIS OF DESIGN (DAIKIN)							TYPE	CAPACITY RANGE	VOLT/PH	MCA			MOCP
HP-1-1	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU	CU-1-1	1600	MECH. PLATFORM	20.4	312.0	351.0	INVERTER DRIVEN SCROLL HERMETIC	7-100%	208/3	58.3 + 61.9	70 + 70	REYQ 312XAT-JB	1-6
HP-1-2	26	SEE PLANS	WALL-HUNG	290 / 180	12.0/8.9	75/62	13.5	70	100	230/1	0.4	15	FXAQ-12RV-JU													1-6
HP-1-3	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-4	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-5	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-6	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-7	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-8	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-9	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-10	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-11	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-12	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-13	35	SEE PLANS	WALL-HUNG	635 / 470	24.0/18.0	75/62	26.5	70	100	230/1	0.6	15	FXAQ-24PV-JU													1-6
HP-1-14	26	SEE PLANS	WALL-HUNG	280 / 175	9.5/7.5	75/62	10.5	70	100	230/1	0.4	15	FXAQ-09PV-JU													1-6
HP-1-15	26	SEE PLANS	WALL-HUNG	260 / 160	7.5/6.4	75/62	8.5	70	100	230/1	0.4	15	FXAQ-07PV-JU													1-6
HP-1-16	26	SEE PLANS	WALL-HUNG	260 / 160	7.5/6.4	75/62	8.5	70	100	230/1	0.4	15	FXAQ-07PV-JU													1-6
HP-1-17	26	SEE PLANS	WALL-HUNG	260 / 160	7.5/6.4	75/62	8.5	70	100	230/1	0.4	15	FXAQ-07PV-JU													1-6
HP-1-18	26	SEE PLANS	WALL-HUNG	260 / 160	7.5/6.4	75/62	8.5	70	100	230/1	0.4	15	FXAQ-07PV-JU													1-6

NOTES:
 1. UNITS SHALL UTILIZE REFRIGERANT R-410A
 2. PROVIDE BAC-HD150 BACNET INTERFACE, GB24A CENTRAL CONTROLLER, PAC-SC51KUA POWER SUPPLY UNIT, AND SIMPLE MA CONTROLLERS (OR EQUAL).
 3. PROVIDE FACTORY CONDENSATE LIFT MECHANISM.
 4. PROVIDE MANUFACTURER RECOMMENDED HANGING AND ISOLATION KIT FOR VRF INDOOR UNITS. INSTALL OUTDOOR CONDENSING UNIT ON FABRICATED STEEL SUPPORT PLATFORM (COORDINATE WITH STRUCTURAL) WITH MANUFACTURER REQUIRED NEOPRENE ISOLATION PAD.
 5. PROVIDE VRF INDOOR UNIT WITH A SELF-CONTAINED AND SELF-BALANCING BI-POLAR IONIZATION MODULE (PLASMA AIR - PA600 OR EQUAL). MODULE SHALL BE POWERED BY AND INTERLOCKED WITH OPERATION OF THE CORRESPONDING VRF INDOOR UNIT.
 6. PROVIDE VRF SYSTEM HEAT RECOVERY BRANCH SELECTOR BOXES BS-1-1 AND BS-1-2.

DUCTLESS SPLIT SYSTEM AIR CONDITIONERS *** EQUIPMENT TO BE FURNISHED BY NUNEZ COMMUNITY COLLEGE, INSTALLED BY THE CONTRACTOR***											OUTDOOR UNIT										NOTES	
INDOOR UNIT											MARK	WEIGHT (LBS)	LOCATION	SEER	COOLING CAP. (MBH)	COMPRESSOR DATA		ELECTRICAL DATA				BASIS OF DESIGN (DAIKIN)
MARK	WEIGHT LBS.	LOCATION	TYPE	CFM (MAX / MIN)	CAPACITY		ELECTRICAL DATA			BASIS OF DESIGN (DAIKIN)						TYPE	CAPACITY RANGE	VOLT/PH	MCA	MOCP		
AC-2-1	25	ELEC/IT 206	WALL-HUNG	440 / 210	10.9	13.5	120/1	1.2	0.95	FTX12BXVJU	CU-2-1	62	MECH. PLATFORM	20	12.0	SINGLE ROTARY	25-100%	208/1	12.4	15	RX12BXVJU	1-4

NOTES:
 1. DUCTLESS SPLIT SYSTEM AC SHALL BE A HEAT PUMP SYSTEM THAT SHALL UTILIZES REFRIGERANT R-410A
 2. PROVIDE FACTORY CONDENSATE LIFT MECHANISM.
 3. PROVIDE MANUFACTURER RECOMMENDED HANGING AND ISOLATION KIT FOR VRF INDOOR UNITS. INSTALL OUTDOOR CONDENSING UNIT ON STRUCTURAL FABRICATED PLATFORM WITH MANUFACTURER REQUIRED NEOPRENE ISOLATION PAD.
 4. DUCTLESS SPLIT SYSTEM INDOOR AC UNIT SHALL RECEIVE POWER FROM OUTDOOR CONDENSING UNIT.

100% OUTSIDE AIR VRF SYSTEM AIR HANDLING UNIT SCHEDULE *** EQUIPMENT TO BE FURNISHED BY NUNEZ COMMUNITY COLLEGE, INSTALLED BY THE CONTRACTOR***																		NOTES			
SUPPLY FAN						COOLING				HOT GAS REHEAT			HEATING			ELECTRICAL DATA				BASIS OF DESIGN (DAIKIN)	
MARK	WEIGHT LBS.	SERVICE	CFM SA	CFM OA	EXT SP	HP	TOTAL MBH	SENS MBH	EAT	LAT	SENS MBH	EAT DB	LAT DB	TOTAL MBH	EAT/LAT DEG F	VOLT/PH	FLA		MCA		MOCP
OAU-1-1	460	SEE DWGS.	-	1200	0.6	0.4	107.0	52.1	95.0/80.0	55.0/54.0	--	55.0	70.0	125.2	30.0/70.0	208V1P	--	9.4	15.0	BCHD0161	1-7

NOTES:
 1. UNITS SHALL BE DX SPLIT SYSTEM HEAT PUMP (R-410A).
 2. PROVIDE UNIT WITH MODULATING HOT GAS REHEAT.
 3. CONNECT UNIT TO VRF CENTRAL CONTROLLER FOR VRF SYSTEMS CU-1 AND CU-2
 4. CAPACITIES INDICATED ARE CONDITIONS LEAVING THE UNIT INCLUDING INTERNAL GAINS SUCH AS FAN HEAT.
 5. PROVIDE UNIT WITH MANUFACTURER RECOMMENDED SUPPORT AND VIBRATION ISOLATION.
 6. PROVIDE UNIT WITH FACTORY CONDENSATE LIFT MECHANISM.
 7. PROVIDE MERV 13 FILTER BOX ASSEMBLY WITH SIDE ACCESS PANEL (MITSUBISHI FBH OR EQUAL).
 8. PROVIDE HEAT PUMP + HOT GAS REHEAT EXPANSION VALVE KITS.
 9. PROVIDE CONTROL BOX + BRANCH SELECTION BOX.

100% OA VRF SYSTEM CONDENSING UNIT SCHEDULE *** EQUIPMENT TO BE FURNISHED BY NUNEZ COMMUNITY COLLEGE, INSTALLED BY THE CONTRACTOR***														NOTES
TAG	WEIGHT LBS.	SERVICE	IEER	COOLING MBH	HEATING MBH	AMBIENT TEMP F	REFRIGERANT	ELECTRICAL DATA				BASIS OF DESIGN (DAIKIN)	EFF. (EER)	
								VOLT/PH	RLA	MCA	MOCP			
CU-1-2	750.0	OAU-1-1	25.5	120.0	135.0	95	R-410A	208/3	28.2	43.0	50.0	REYQ120XATJB	12.5	1-4

NOTES:
 1. PROVIDE UNIT WITH MODULATING HOT GAS REHEAT.
 2. INSTALL UNIT ON MIN. 4" HIGH CONCRETE HOUSEKEEPING PAD WITH MANUFACTURER REQUIRED NEOPRENE ISOLATION PADS.
 3. CONNECT TO VRF CENTRAL CONTROLLER FOR VRF SYSTEMS CU-1 AND CU-2.
 4. PROVIDE A 4-PORT VRF SYSTEM HEAT RECOVERY SELECTOR BOX FOR EACH 100% OA SYSTEM BS-1-2.

FAN SCHEDULE										NOTES
MARK	WEIGHT (LBS.)	TYPE	CFM	SP (IN WG)	FAN MOTOR			BASIS OF DESIGN (GREENHECK)		
					HP	FLA	VOLT/PH			
EF-1-1	30	CEILING CASSETTE	150	0.3	67W	0.56	120/1	CSP-A250	1.2,3,4	
EF-1-2	30	CEILING CASSETTE	200	0.3	102W	0.83	120/1	CSP-A290	1.2,3,4	
EF-1-3	30	CEILING CASSETTE	75	0.3	18W	0.31	120/1	SP-A50	1.2,3,4	

NOTES:
 1. PROVIDE INTEGRAL BACKDRAFT DAMPER.
 2. PROVIDE FACTORY SPEED CONTROLLER.
 3. PROVIDE FACTORY OCCUPANCY SENSOR.
 4. PROVIDE MANUFACTURER APPROVED HANGING/ISOLATION KIT.

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NUNEZ COMMUNITY COLLEGE
 AEROSPACE BUILDING RENOVATION
 100 WEST VIRTUE ST.
 CHALMETTE, LOUISIANA
 STUDIO KIRO No.2305



12/12/2023 BID SET

DATE	ISSUED FOR
12/12/2023	BID SET
01/10/2024	ADDENDUM No. 2

MECHANICAL SCHEDULES



M0.1



Nunez Community College Aerospace and Steam Building

October 31, 2023

Submittals

Mechanical Engineer
Heidi Gremillion

Mechanical Contractor
TBD

Submitted By
David Weaver

Equipment	Manufacturer
VRV Heat Recovery System	Daikin
VRV DOAS System	Daikin
Mini-Split System	Daikin
Ionization	GPS
Ball Valves	NDL

HG ENGINEERING LLC - SHOP DRAWING REVIEW

ENGINEER REVIEW	CONTRACTOR RESPONSE
<input checked="" type="checkbox"/> No exceptions taken	<input checked="" type="checkbox"/> None
<input type="checkbox"/> Note corrections	<input type="checkbox"/> Make corrections noted
<input type="checkbox"/> Comments attached	<input type="checkbox"/> Send revised copy for record
<input type="checkbox"/> Rejected	<input type="checkbox"/> Revise and resubmit

Engineer's review is for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Contractor from compliance with the project plans and specifications, nor departures therefrom. The Contractor remains responsible for details and accuracy, for confirming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly and for performing his work in a safe manner.

By: HRG Job No. 23024 Date: 11/07/23

1. Note that Branch Selector boxes require power.
2. Provide MERV 13 filter box with DOAS unit.
3. Coordinate location of control panel with Owner.



Submittal Data Sheet

26 ton, 230V, VRV IV X HR - REYQ312XATJB

Project: Nunez Community College -- Aerospace & Steam Building

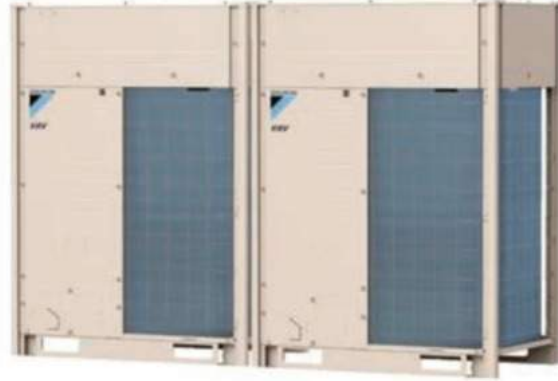
Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: CU-1-1

FEATURES

- Compatible with Low Temperature (LT) Hydrobox and EEV Kit for DOAS with hot gas reheat capability
- Industry's first 3 phase VRF system to integrate with communicating gas furnaces.
- Design flexibility to enlarge system from single to dual module or dual to triple module without changes to installed main pipe sizes.
- Engineered with Daikin vapor injection compressor for optimized part load efficiencies.
- Hot gas defrost circuit with improved control logic allows installation without base pan heater.
- New service window provides quick access to multi-functional display and configuration buttons.
- Multi-functional display provides refrigerant pressures and temperatures eliminating the need to connect gauges during regular maintenance check.
- Easy commissioning with ability to program settings off site using configurator tool.
- Assembled in the US to increase flexibility and reduce lead times.
- Standard Limited Warranty: 10-year limited parts warranty.



BENEFITS

- Choice of gas furnace or heat pump heating for optimizing operational costs based on utility cost.
- Engineered to optimize capital on phased & tenant fit out commercial buildings.
- Year round comfort and energy savings with Variable Refrigerant Temperature technology (VRT).
- Modular and lightweight - enables flexibility in system layout and installation
- Corrosion resistance 1000hr salt spray tested Daikin PE blue fin heat exchanger
- Refrigerant cooled inverter technology keeps PCB cool independent of ambient temperature
- Field performable Intermittent outdoor fan operation to help minimize snow accumulation on fan blades when the system is off.
- Backwards compatible with T-series Branch Selector boxes.





Submittal Data Sheet

26 ton, 230V, VRV IV X HR - REYQ312XATJB

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: CU-1-1

PERFORMANCE

Outdoor Unit Model No.	REYQ312XATJB	Outdoor Unit Name:	26 ton, 230V, VRV IV X HR
Type:	Heat Recovery	Unit Combination:	REYQ144XATJB + REYQ168XATJB
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	296,000	Rated Heating Capacity (Btu/hr):	320,000
Nom Cooling Capacity (Btu/hr):	312,000	Nom Heating Capacity (Btu/hr):	351,000
Cooling Input Power (kW):	22.50	Heating Input Power (kW):	28.40
EER (Non-Ducted/Ducted):	10.10 / 9.90	Heating COP (Non-Ducted/Ducted):	3.6 / 3.2
IEER (Non-Ducted/Ducted):	20.40 / 18.00	Heating COP 17F (Non-Ducted/Ducted):	2.1 / 2.1
		SCHE (Non-Ducted/Ducted):	24.30 / 20.70

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	7 - 100
Min. Circuit Amps MCA (A):	58.3+61.9	Capacity Index Limit:	156.0 - 405.0
Max Overcurrent Protection (MOP) (A):	70 + 70	Airflow Rate (H) (CFM):	9480 + 9480
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-3/8
Rated Load Amps RLA(A):	46.5 + 46.5	Liquid Pipe Connection (inch):	3/4
Dimensions (Height) (in):	66-11/16	H/L Pressure Connection (inch)	1-1/8
Dimensions (Width) (in):	48-7/8+48-7/8	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-3/16	Sound Pressure (H) (dBA):	68
Net Weight (lb):	793 + 793	Sound Power Level (dBA):	
		Max. No. of Indoor Units:	54



Submittal Data Sheet

26 ton, 230V, VRV IV X HR - REYQ312XATJB

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

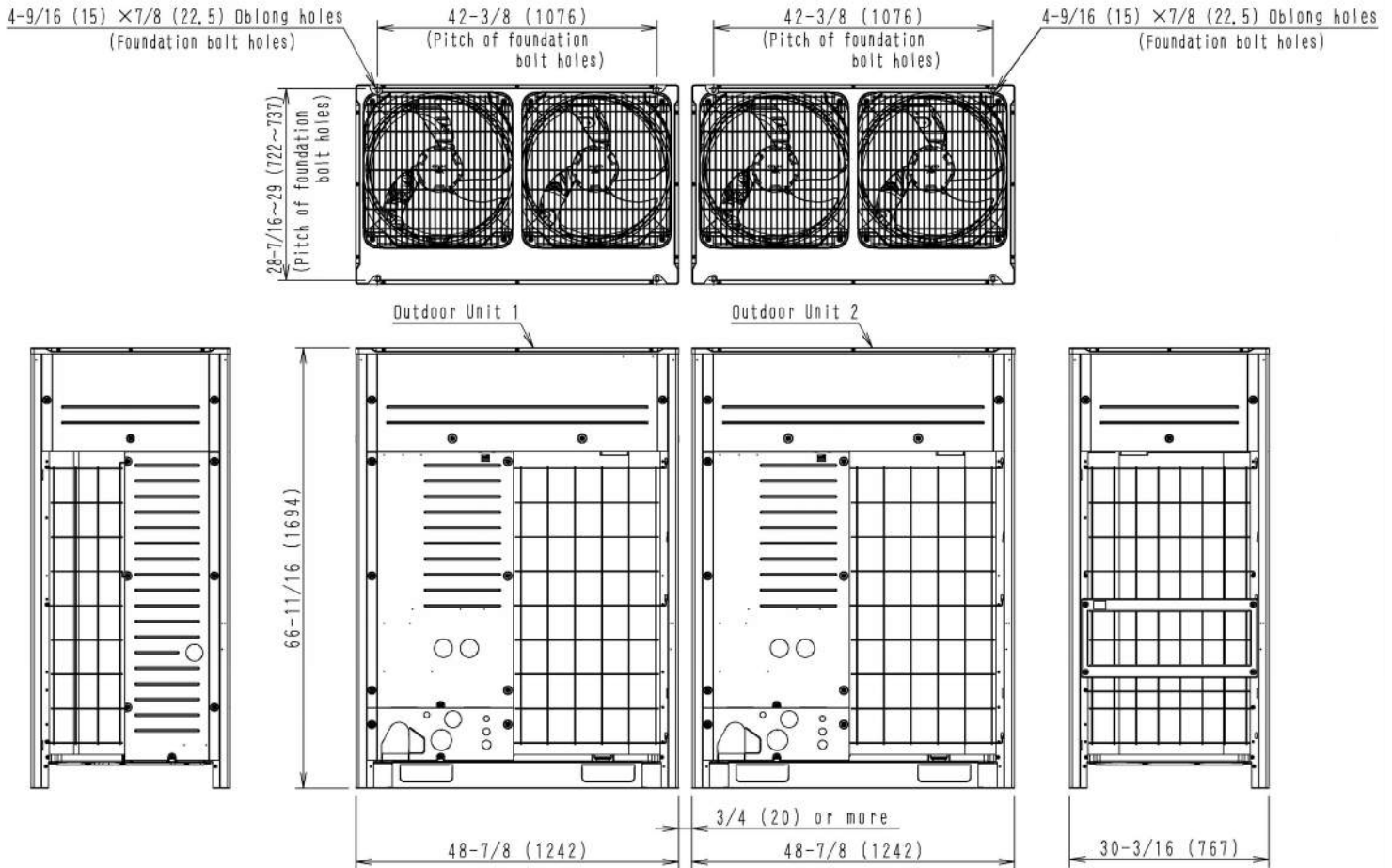
Submitted to: No Engineer Name Specified

Tags: CU-1-1

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8+25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (lb/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING





Submittal Data Sheet

Flex Branch Selector Box (6-Port) - BSF6Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-1





Submittal Data Sheet

Flex Branch Selector Box (6-Port) - BSF6Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-1

PERFORMANCE

Indoor Unit Model No.	BSF6Q54TVJ	Indoor Unit Name:	Flex Branch Selector Box (6-Port)
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	216,000	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	
Cooling Input Power (kW):	0.064	Rated Height Separation (ft):	

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H) (CFM):	
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.6	Gas Pipe Connection (inch):	1-1/8
Max Overcurrent Protection (MOP) (A):	15.00	Liquid Pipe Connection (inch):	5/8
Dimensions (HxWxD) (in):	9-1/2 x 23-3/8 x 23-3/4	Condensate Connection (inch):	
Net Weight (lb):	73	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

Flex Branch Selector Box (6-Port) - BSF6Q54TVJ

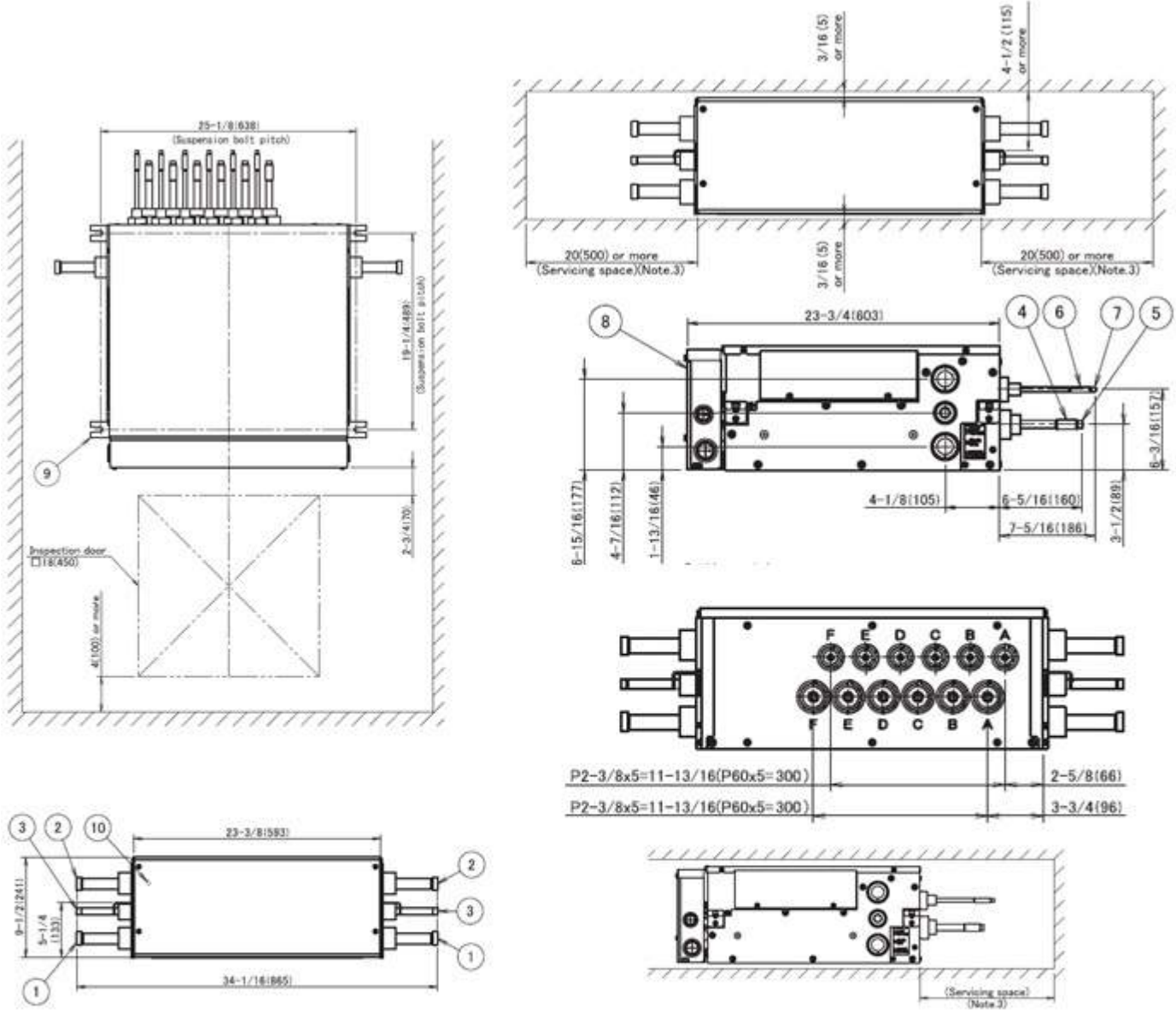
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Submitted to: No Engineer Name Specified

Tags: BS-1-1

DIMENSIONAL DRAWING



7	Indoor unit liquid pipe connection port (Note. 4)	φ1/4(φ6.4) Brazing connection			
6	Indoor unit liquid pipe connection port (Note. 4)	φ3/8(φ9.5) Brazing connection			
5	Indoor unit gas pipe connection port (Note. 4)	φ1/2(φ12.7) Brazing connection			
4	Indoor unit gas pipe connection port (Note. 4)	φ5/8(φ15.9) Brazing connection			
3	Outdoor unit liquid pipe connection port (Note. 5, 6)	φ5/8(φ15.9) Brazing connection	1 O Ground terminal	M4	
2	Outdoor unit HP/LP gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6) Brazing connection	9 Hanger brackets	M8~M10	
1	Outdoor unit suction gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6) Brazing connection	8 Control box (Note. 1)		
No.	Part name	Remark	No.	Part name	Remark



Submittal Data Sheet

Flex Branch Selector Box (8-Port) - BSF8Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-2





Submittal Data Sheet

Flex Branch Selector Box (8-Port) - BSF8Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-2

PERFORMANCE

Indoor Unit Model No.	BSF8Q54TVJ	Indoor Unit Name:	Flex Branch Selector Box (8-Port)
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	290,000	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	
Cooling Input Power (kW):	0.086	Rated Height Separation (ft):	

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H) (CFM):	
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.8	Gas Pipe Connection (inch):	1-1/8
Max Overcurrent Protection (MOP) (A):	15.00	Liquid Pipe Connection (inch):	5/8
Dimensions (HxWxD) (in):	9-1/2 x 23-3/8 x 23-3/4	Condensate Connection (inch):	
Net Weight (lb):	81	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

Flex Branch Selector Box (8-Port) - BSF8Q54TVJ

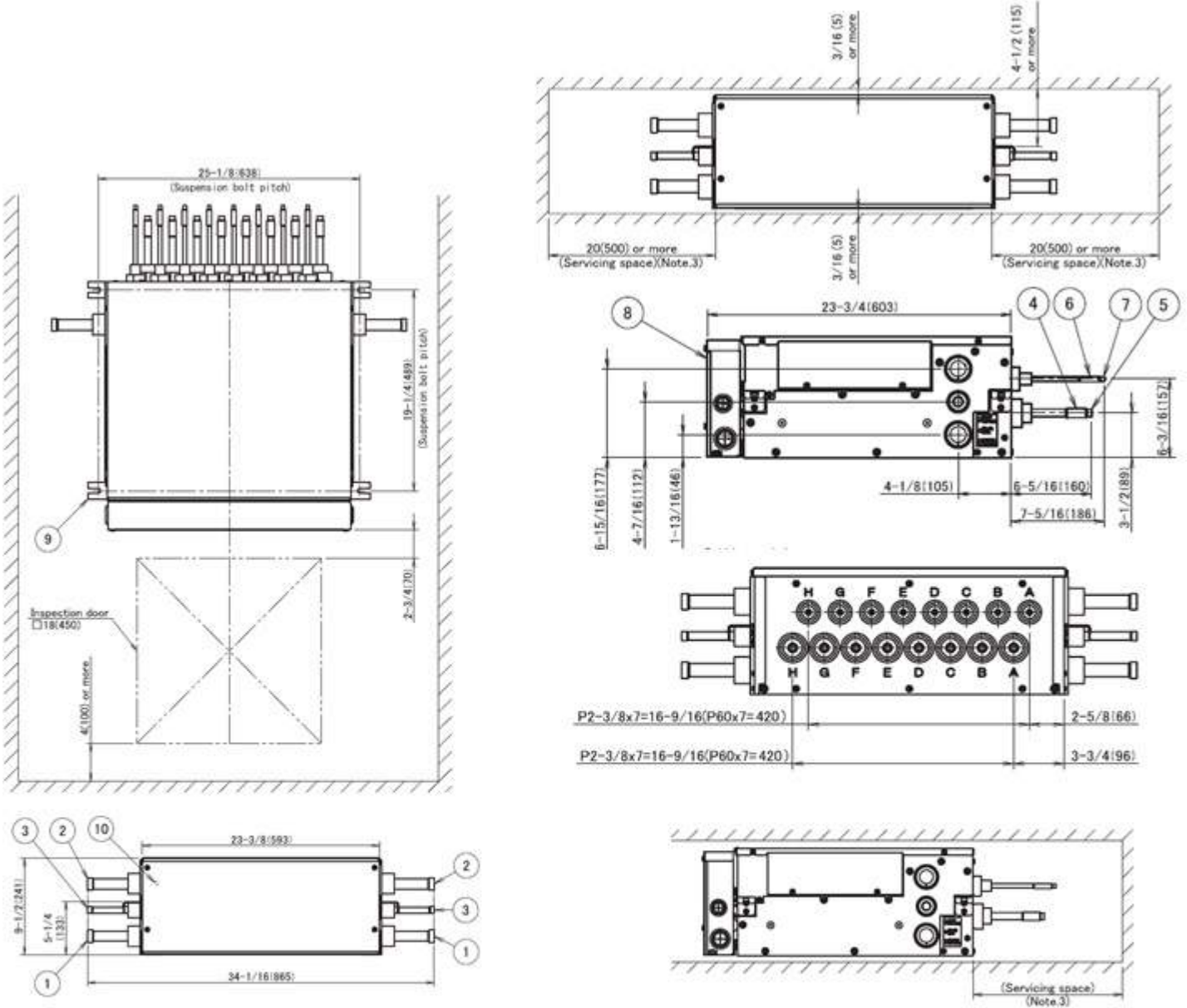
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-2

DIMENSIONAL DRAWING



No.	Part name	Remark	No.	Part name	Remark
7	Indoor unit liquid pipe connection port (Note. 4)	φ1/4(φ6.4) Brazing connection			
6	Indoor unit liquid pipe connection port (Note. 4)	φ3/8(φ9.5) Brazing connection			
5	Indoor unit gas pipe connection port (Note. 4)	φ1/2(φ12.7) Brazing connection			
4	Indoor unit gas pipe connection port (Note. 4)	φ5/8(φ15.9) Brazing connection			
3	Outdoor unit liquid pipe connection port (Note. 5, 6)	φ5/8(φ15.9) Brazing connection	1	Ground terminal	M4
2	Outdoor unit HP/LP gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6) Brazing connection	9	Hanger brackets	M8~M10
1	Outdoor unit suction gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6) Brazing connection	B	Control box (Note. 1)	
No.	Part name	Remark	No.	Part name	Remark



Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-15, HP-1-17, HP-1-16, HP-1-18

FEATURES

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Easy to clean front panel with a flat smooth surface that can be removed for additional cleaning
- Five different airflow distribution angles programmable by the optional controller
- Condensate drain pipe can be installed on either the left or right side of the unit
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Standard Limited Warranty: 10-year warranty on compressor and all parts



VRV





Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-15, HP-1-17, HP-1-16, HP-1-18

PERFORMANCE

Indoor Unit Model No.	FXAQ07PVJU	Indoor Unit Name:	0.5-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	7,500	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	6,400	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.020	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	8,500		
Heating Input Power (kW):	0.03		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/L) (CFM):	260/160
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-3/8 x 31-1/4 x 9-1/4	Condensate Connection (inch):	11/16
Net Weight (lb):	26	Sound Pressure (H/L) (dBA):	36/31
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	



Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

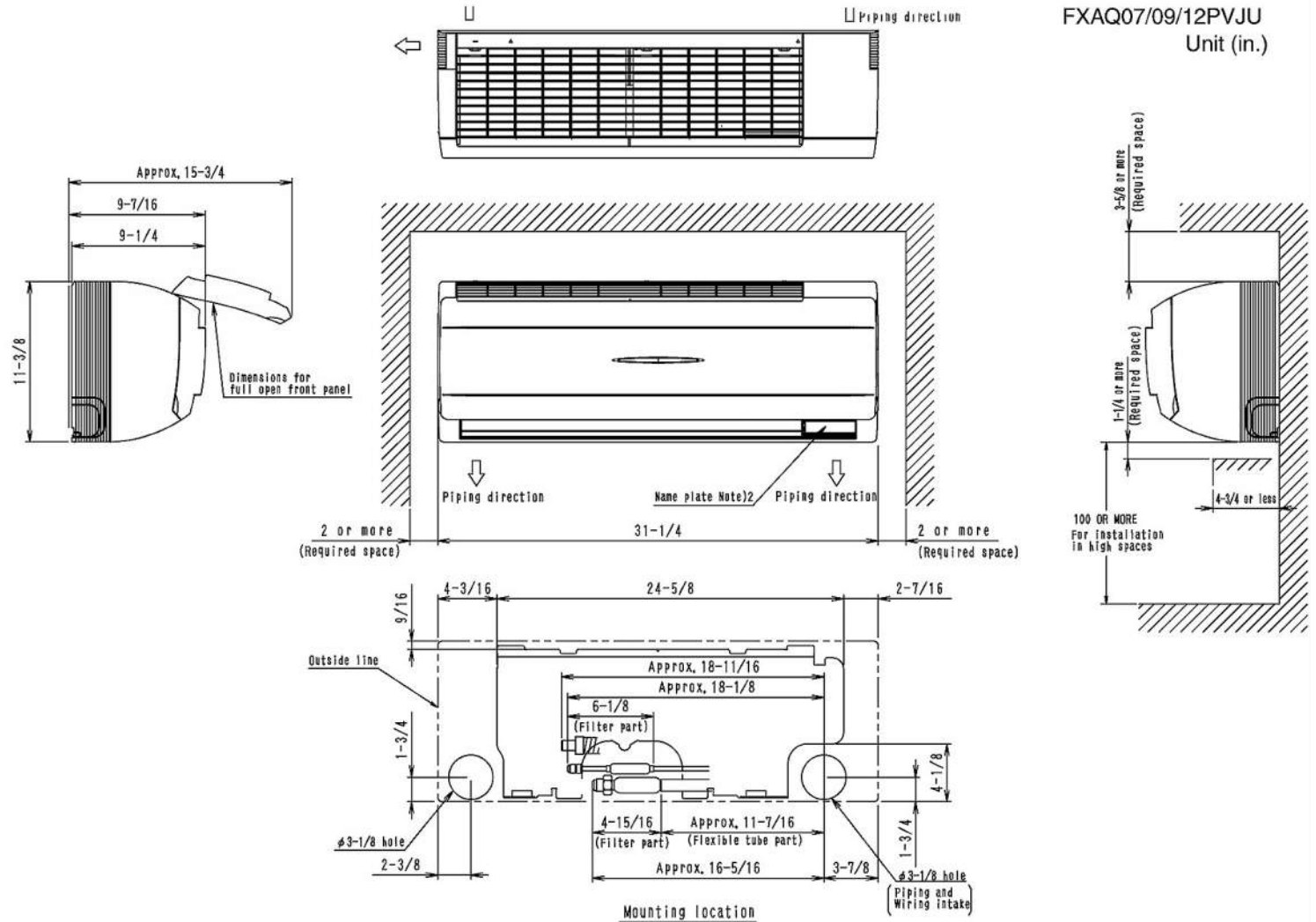
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-15, HP-1-17, HP-1-16, HP-1-18

DIMENSIONAL DRAWING





Submittal Data Sheet

0.75-Ton Wall Mounted Unit - FXAQ09PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-14

FEATURES

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Easy to clean front panel with a flat smooth surface that can be removed for additional cleaning
- Five different airflow distribution angles programmable by the optional controller
- Condensate drain pipe can be installed on either the left or right side of the unit
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Standard Limited Warranty: 10-year warranty on compressor and all parts



VRV





Submittal Data Sheet

0.75-Ton Wall Mounted Unit - FXAQ09PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-14

PERFORMANCE

Indoor Unit Model No.	FXAQ09PVJU	Indoor Unit Name:	0.75-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	9,500	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	7,300	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.030	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	10,500		
Heating Input Power (kW):	0.03		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/L) (CFM):	280/175
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-3/8 x 31-1/4 x 9-1/4	Condensate Connection (inch):	11/16
Net Weight (lb):	26	Sound Pressure (H/L) (dBA):	37/31
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	



Submittal Data Sheet

0.75-Ton Wall Mounted Unit - FXAQ09PVJU

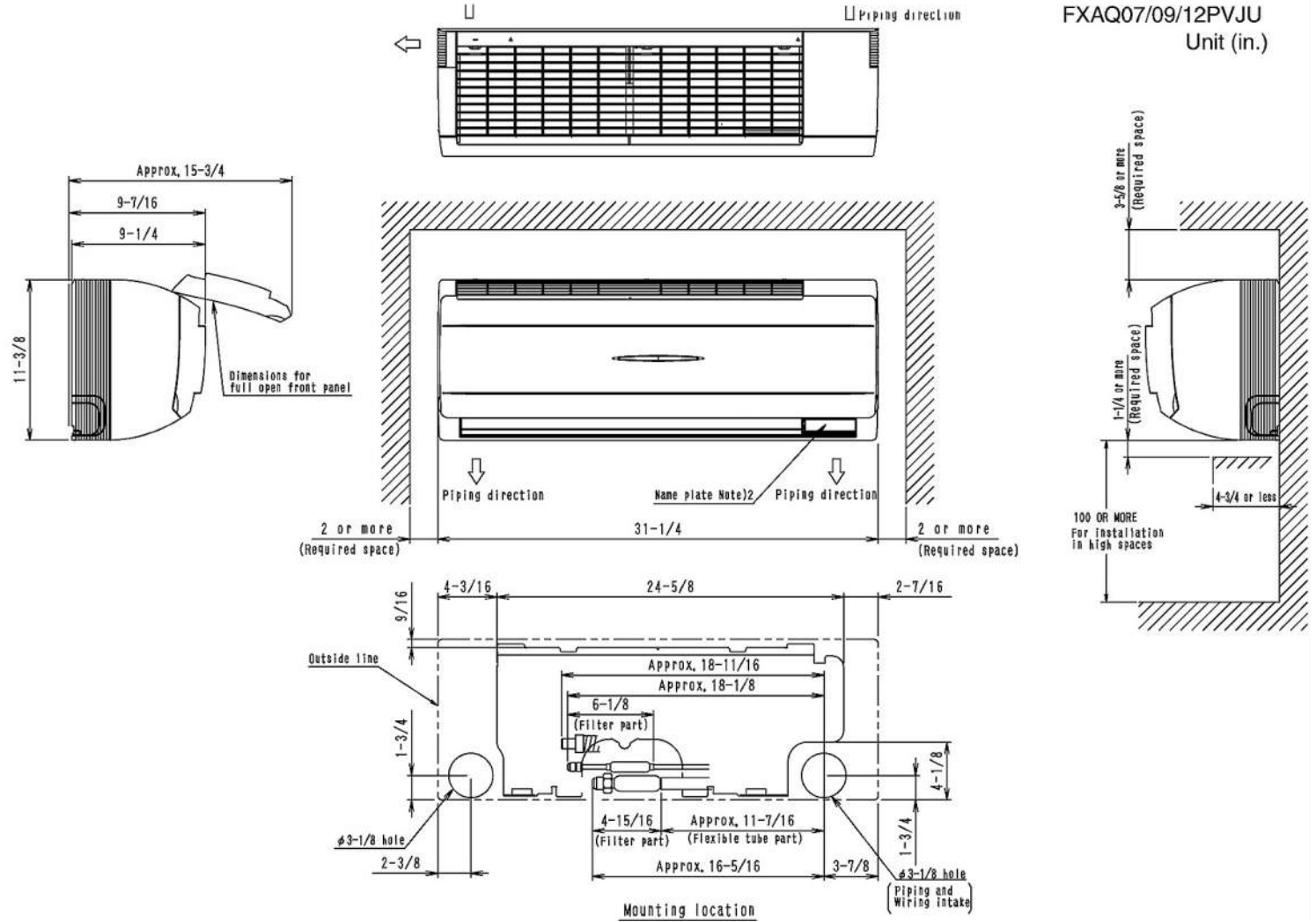
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-14

DIMENSIONAL DRAWING



FXAQ07/09/12PVJU
Unit (in.)



Submittal Data Sheet

1.0-Ton Wall Mounted Unit - FXAQ12PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-2

FEATURES

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Easy to clean front panel with a flat smooth surface that can be removed for additional cleaning
- Five different airflow distribution angles programmable by the optional controller
- Condensate drain pipe can be installed on either the left or right side of the unit
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Standard Limited Warranty: 10-year warranty on compressor and all parts



VRV





Submittal Data Sheet

1.0-Ton Wall Mounted Unit - FXAQ12PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-2

PERFORMANCE

Indoor Unit Model No.	FXAQ12PVJU	Indoor Unit Name:	1.0-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	12,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	8,900	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.030	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	13,500		
Heating Input Power (kW):	0.04		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/L) (CFM):	290/180
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1/2
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-3/8 x 31-1/4 x 9-1/4	Condensate Connection (inch):	11/16
Net Weight (lb):	26	Sound Pressure (H/L) (dBA):	38/31
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	



Submittal Data Sheet

1.0-Ton Wall Mounted Unit - FXAQ12PVJU

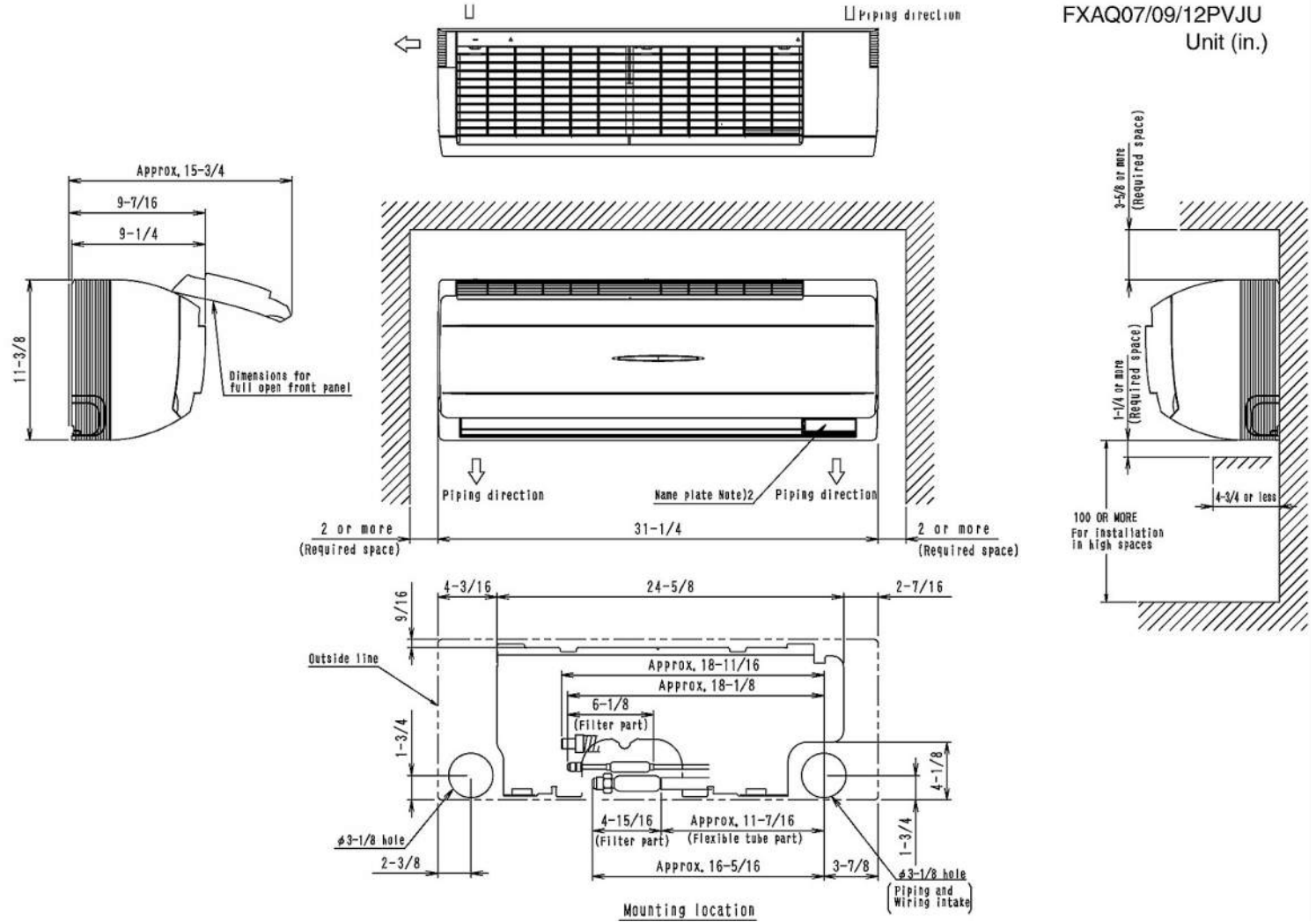
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-2

DIMENSIONAL DRAWING





Submittal Data Sheet

2.0-Ton Wall Mounted Unit - FXAQ24PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-1, HP-1-3, HP-1-4, HP-1-5, HP-1-6, HP-1-7, HP-1-8, HP-1-9, HP-1-10, HP-1-12, HP-1-13, HP-1-11

FEATURES

- Auto-swing mechanism ensures efficient air distribution via louvers that automatically close when the unit is turned off
- Easy to clean front panel with a flat smooth surface that can be removed for additional cleaning
- Five different airflow distribution angles programmable by the optional controller
- Condensate drain pipe can be installed on either the left or right side of the unit
- Wide air discharge outlet distributes a comfortable airflow throughout the entire space
- Standard Limited Warranty: 10-year warranty on compressor and all parts



VRV





Submittal Data Sheet

2.0-Ton Wall Mounted Unit - FXAQ24PVJU

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-1, HP-1-3, HP-1-4, HP-1-5, HP-1-6, HP-1-7, HP-1-8, HP-1-9, HP-1-10, HP-1-12, HP-1-13, HP-1-11

PERFORMANCE

Indoor Unit Model No.	FXAQ24PVJU	Indoor Unit Name:	2.0-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	24,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Sensible Capacity (Btu/hr):	18,000	Rated Piping Length(ft):	
Cooling Input Power (kW):	0.050	Rated Height Separation (ft):	
Rated Heating Capacity (Btu/hr):	26,500		
Heating Input Power (kW):	0.06		

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H/L) (CFM):	635/470
Power Supply Connections:	L1, L2, Ground	Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.6	Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	3/8
Dimensions (HxWxD) (in):	11-3/8 x 41-3/8 x 9-1/4	Condensate Connection (inch):	11/16
Net Weight (lb):	31	Sound Pressure (H/L) (dBA):	47/41
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

2.0-Ton Wall Mounted Unit - FXAQ24PVJU

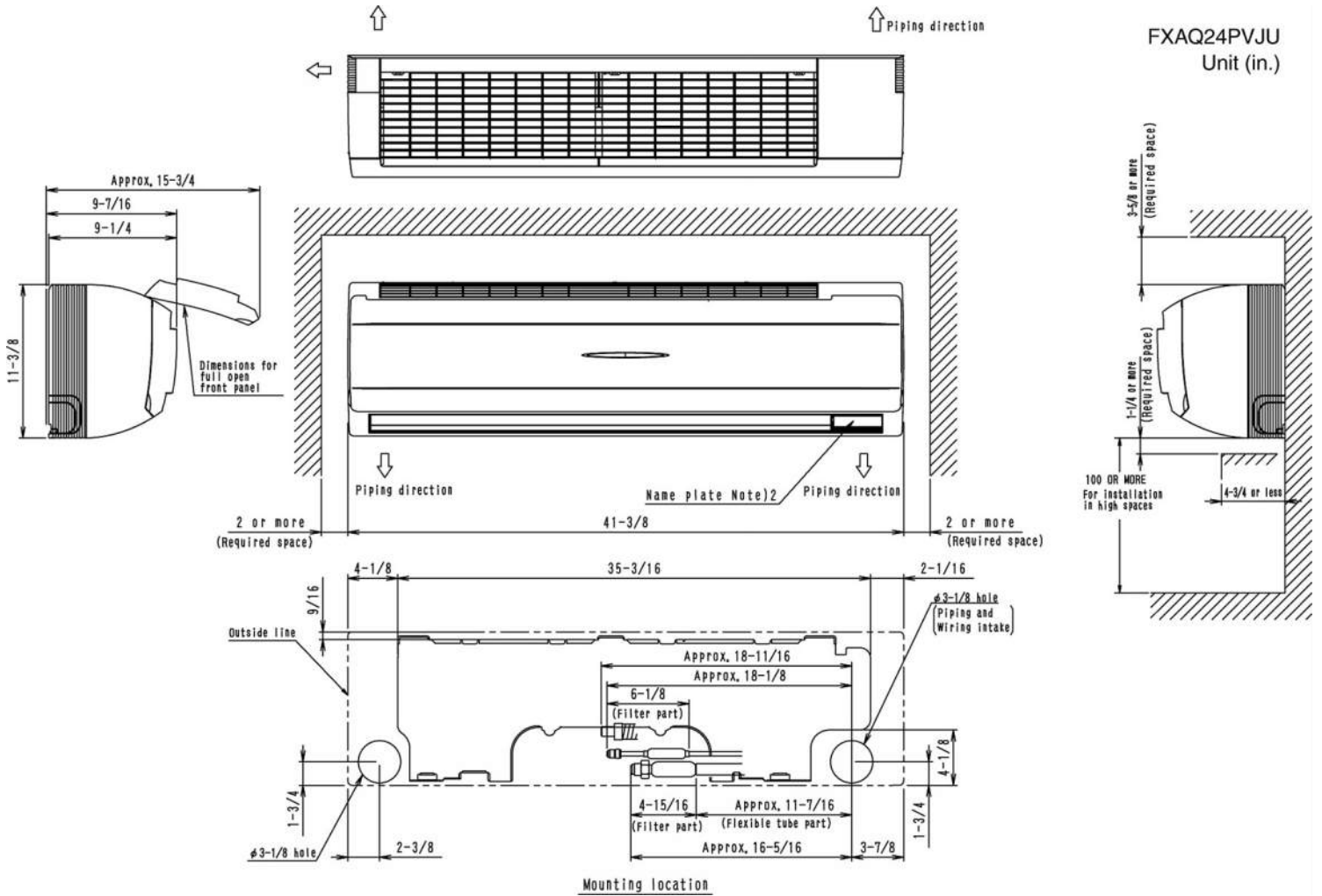
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: HP-1-1, HP-1-3, HP-1-4, HP-1-5, HP-1-6, HP-1-7, HP-1-8, HP-1-9, HP-1-10, HP-1-12, HP-1-13, HP-1-11

DIMENSIONAL DRAWING





Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: CU-1-2

FEATURES

- Compatible with Low Temperature (LT) Hydrobox and EEV Kit for DOAS with hot gas reheat capability
- Industry's first 3 phase VRF system to integrate with communicating gas furnaces.
- Design flexibility to enlarge system from single to dual module or dual to triple module without changes to installed main pipe sizes.
- Engineered with Daikin vapor injection compressor for optimized part load efficiencies.
- Hot gas defrost circuit with improved control logic allows installation without base pan heater.
- New service window provides quick access to multi-functional display and configuration buttons.
- Multi-functional display provides refrigerant pressures and temperatures eliminating the need to connect gauges during regular maintenance check.
- Easy commissioning with ability to program settings off site using configurator tool.
- Assembled in the US to increase flexibility and reduce lead times.
- Standard Limited Warranty: 10-year limited parts warranty.



BENEFITS

- Choice of gas furnace or heat pump heating for optimizing operational costs based on utility cost.
- Engineered to optimize capital on phased & tenant fit out commercial buildings.
- Year round comfort and energy savings with Variable Refrigerant Temperature technology (VRT).
- Modular and lightweight - enables flexibility in system layout and installation
- Corrosion resistance 1000hr salt spray tested Daikin PE blue fin heat exchanger
- Refrigerant cooled inverter technology keeps PCB cool independent of ambient temperature
- Field performable Intermittent outdoor fan operation to help minimize snow accumulation on fan blades when the system is off.
- Backwards compatible with T-series Branch Selector boxes.





Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: CU-1-2

PERFORMANCE

Outdoor Unit Model No.	REYQ120XATJB	Outdoor Unit Name:	10 ton, 230V, VRV IV X HR
Type:	Heat Recovery	Unit Combination:	
Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Rated Piping Length(ft):			
Rated Height Difference (ft):			
Rated Cooling Capacity (Btu/hr):	114,000	Rated Heating Capacity (Btu/hr):	129,000
Nom Cooling Capacity (Btu/hr):	120,000	Nom Heating Capacity (Btu/hr):	135,000
Cooling Input Power (kW):	9.01	Heating Input Power (kW):	10.50
EER (Non-Ducted/Ducted):	13.20 / 12.30	Heating COP (Non-Ducted/Ducted):	3.8 / 3.5
IEER (Non-Ducted/Ducted):	25.50 / 22.60	Heating COP 17F (Non-Ducted/Ducted):	2.5 / 2.3
		SCHE (Non-Ducted/Ducted):	26.00 / 22.00

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 3	Compressor Stage:	
Power Supply Connections:		Capacity Control Range (%):	11 - 100
Min. Circuit Amps MCA (A):	43.0	Capacity Index Limit:	60.0 - 156.0
Max Overcurrent Protection (MOP) (A):	50	Airflow Rate (H) (CFM):	7989
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-1/8
Rated Load Amps RLA(A):	28.2	Liquid Pipe Connection (inch):	1/2
Dimensions (Height) (in):	66-11/16	H/L Pressure Connection (inch)	3/4
Dimensions (Width) (in):	48-7/8	H/L Equalizing Connection (inch)	
Dimensions (Depth) (in):	30-3/16	Sound Pressure (H) (dBA):	61
Net Weight (lb):	727	Sound Power Level (dBA):	
		Max. No. of Indoor Units:	20



Submittal Data Sheet

10 ton, 230V, VRV IV X HR - REYQ120XATJB

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

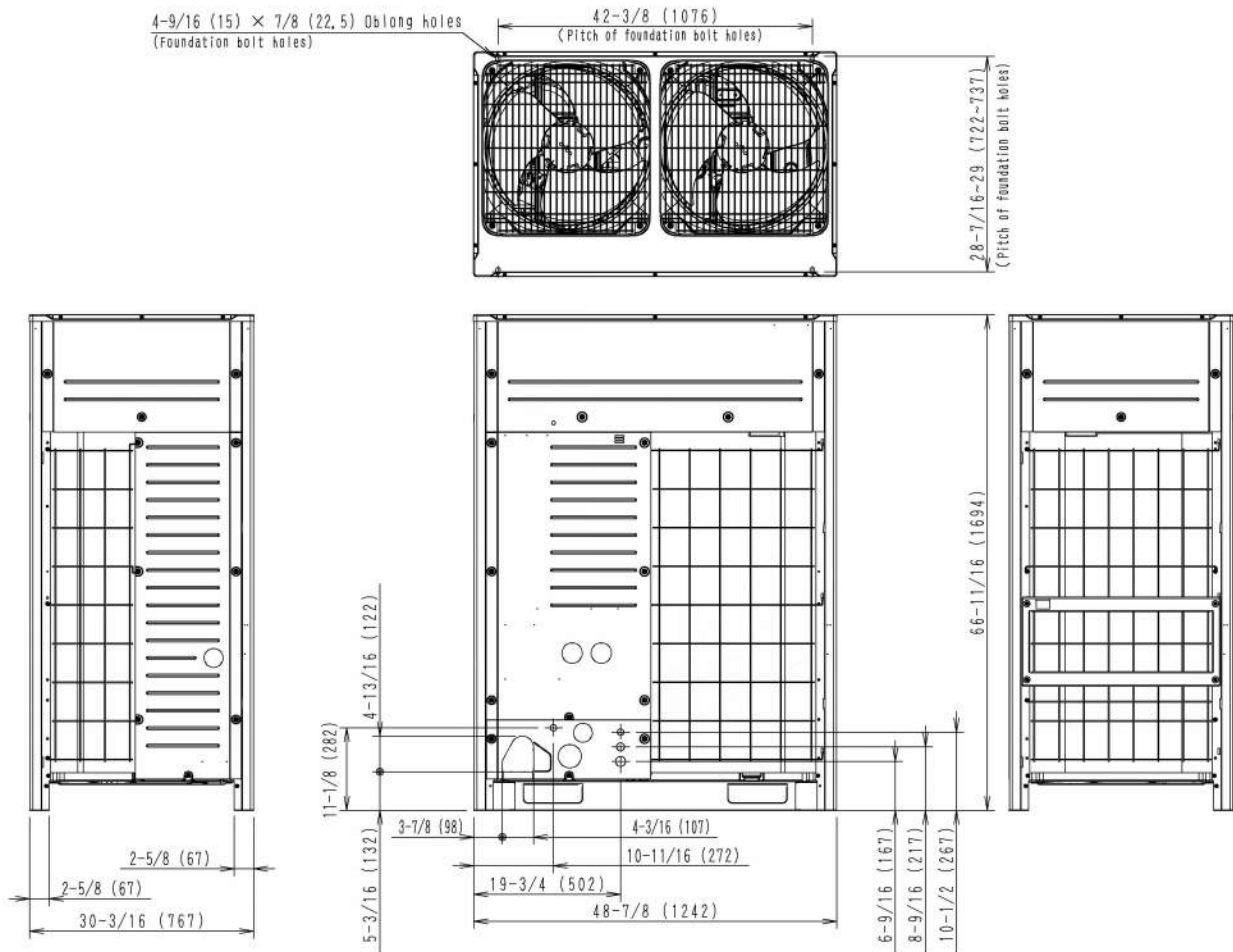
Submitted to: No Engineer Name Specified

Tags: CU-1-2

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	25.8	Heating Operation Range (°F WB):	-13 - 60
Additional Charge (lb/ft):		Max. Pipe Length (Vertical) (ft):	295
Pre-charge Piping (Length) (ft):		Cooling Range w/Baffle (°F DB):	-
Max. Pipe Length (Total) (ft):	540		
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING





Submittal Data Sheet

Flex Branch Selector Box (4-Port) - BSF4Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-3





Submittal Data Sheet

Flex Branch Selector Box (4-Port) - BSF4Q54TVJ

Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-3

PERFORMANCE

Indoor Unit Model No.	BSF4Q54TVJ	Indoor Unit Name:	Flex Branch Selector Box (4-Port)
Type:		Rated Cooling Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Rated Cooling Capacity (Btu/hr):	144,000	Rated Heating Conditions:	Indoor (°F DB/WB): / Ambient (°F DB/WB): /
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	
Cooling Input Power (kW):	0.043	Rated Height Separation (ft):	

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (H) (CFM):	
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):	0.4	Gas Pipe Connection (inch):	1-1/8
Max Overcurrent Protection (MOP) (A):	15.00	Liquid Pipe Connection (inch):	5/8
Dimensions (HxWxD) (in):	9-1/2 x 13-3/4 x 23-3/4	Condensate Connection (inch):	
Net Weight (lb):	49	Sound Pressure () (dBA):	
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

Submittal Data Sheet

Flex Branch Selector Box (4-Port) - BSF4Q54TVJ

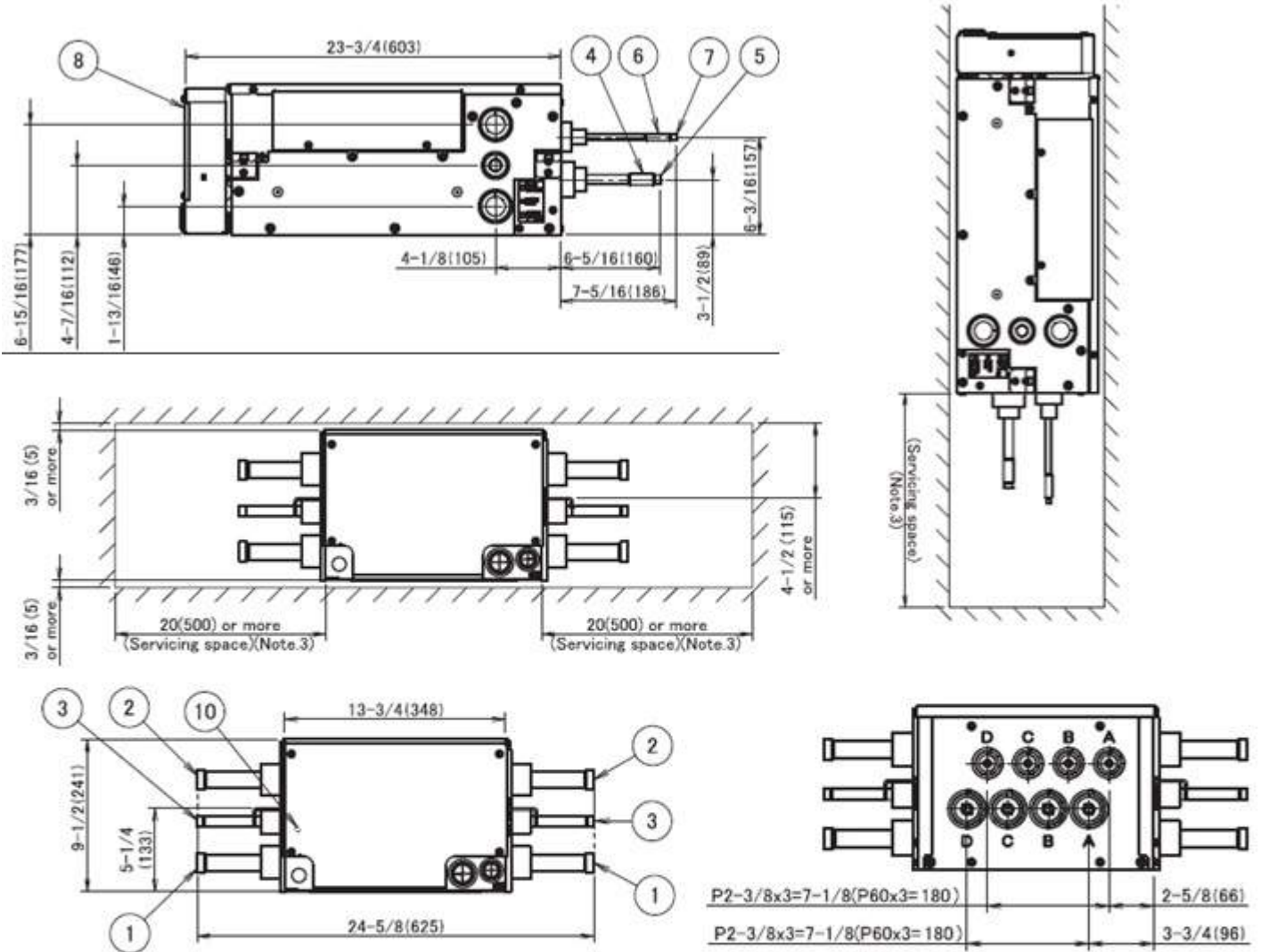
Project: Nunez Community College -- Aerospace & Steam Building

Submitted by: David Weaver of MID SOUTH EQPMT SL SVC LLC on 10/31/2023

Submitted to: No Engineer Name Specified

Tags: BS-1-3

DIMENSIONAL DRAWING



7	Indoor unit liquid pipe connection port (Note. 4)	φ1/4(φ6.4)	Brazing connection			
6	Indoor unit liquid pipe connection port (Note. 4)	φ3/8(φ9.5)	Brazing connection			
5	Indoor unit gas pipe connection port (Note. 4)	φ1/2(φ12.7)	Brazing connection			
4	Indoor unit gas pipe connection port (Note. 4)	φ5/8(φ15.9)	Brazing connection			
3	Outdoor unit liquid pipe connection port (Note. 5, 6)	φ5/8(φ15.9)	Brazing connection	1	Ground terminal	W4
2	Outdoor unit HP/LP gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6)	Brazing connection	9	Hanger brackets	W8~W10
1	Outdoor unit suction gas pipe connection port (Note. 5, 6)	φ1-1/8(φ28.6)	Brazing connection	8	Control box (Note. 1)	
No.	Part name		Remark	No.	Part name	Remark

Job Information		Technical Data Sheet
Job Name	Nunez CC Aerospace & Steam Renovation	
Date	9/26/2023	
Submitted By	Jordan Wright	
Software Version	06.21	
Unit Tag	OAU-1-1	



Unit Overview				
Model Number	Voltage V/Hz/Phase	Airflow CFM	External Static Pressure inH ₂ O	Design Cooling Capacity Btu/hr
BCHD0161	208/60/1	1200	0.60	15277

Unit	
Model Number:	BCHD0161
Unit Arrangement:	Horizontal
Altitude:	0 ft

Physical				
Dimensions and Weight (wet)				
Length	Height	Width	Weight	
46 in	18.0 in	45.5 in	457 lb	
Construction				
Insulation and Liners:	1" Injected Foam, R-6, Galvanized Steel Liner			

Electrical			
Field Connection	MCA	MROPD	SCCR
Disconnect Switch	9.4	15	5 kA

Filter			
Filter Access	Filter Depth	MERV Rating	(Quantity) Height x Width x Depth
Side	2 in	MERV 13	(2) 17.69 x 17.94

VRV Heat Pump & Modulating Hot Gas Reheat Coils

Data Shown on Following Pages

Supply Fan							
Performance							
Airflow	Total Static Pressure	Fan Speed	Controller Input Signal	Brake Horsepower (combined motors)	Total Input Power	Fan Energy Index	Altitude
1200	0.98 inH ₂ O	1056 rpm	4.3 VDC	0.33 HP	0.41 HP	2.329	0 ft
Motor							
Type	Horsepower	Motor Control			FLA		
FC Direct Drive ECM	2 x 1/2 Hp	Three Speed			2 x 4.2 A		



Heat Pump Coil Report

Customer Name	Date	9/26/2023, 1:33:17 PM
Contact	Reference	
Phone	PreparedBy	
Email	Project	Nunez CC Aerospace & Steam Reno

Model Number: 38H13x33-9-8-W-Z-R

Tag: OAHU-1-1 HP

Coil Data			Per Coil	Total
Bank Quantity:	1	Circuiting:	7/14/6/SE	
Fin Height (each coil):	13 In	Suction Conn. #xSize/Type/Header Mat:	1 x 1 1/8" Sweat Copper / Copper	
Fin Length (each coil):	33 In	Distributor Qty:	1	
Fins Per Inch:	9	Circuit Design:	Single	
Rows:	8	Tubes Tall:	13	
Fin Material:	Aluminum 0.006/Waffle	Internal Volume: Coil+Hdr/Fin Pack	392.41/381.68 in ³	392.41/381.68 in ³
Tube Dia/Material:	3/8 Copper 0.020	Coil Weight (bare):	81.66 lb	81.66 lb
Tube Surface:	Smooth	Coil Weight (crated):	174 lb	
Casing Material:	16 ga. 304 Stainless Steel			
Coating:	None			
Refrigerant:	R410a			
		Cooling Total Capacity:	106,955 Btu/hr	106,955 Btu/hr
		Cooling Sensible Capacity:	52,085 Btu/hr	52,085 Btu/hr
		Heating Total Capacity:	125,200 Btu/hr	125,200 Btu/hr

Cooling Air Data

Face Velocity/Bank:	402.8 FPM	Air Flow @ Sea Level:	1200 SCFM	1200 SCFM
Entering Dry/Wet Bulb:	95.0 / 80.0 °F	Leaving Dry/Wet Bulb:	55.1 / 54.8 °F	
Air Side Fouling Factor:	0.0000 ft ² °F h/Btu	Air Pressure Drop:	0.44 inWG	

Cooling Refrigerant Data

Suction Temp:	43 °F	Refrigerant Pressure Drop:	8.39 PSIG
Liquid Temp:	77 °F	Refrigerant Charge:	2.27 lb
Superheat:	9 °F	Refrigerant Mass Flow:	1316 lb/h
		Refrigerant Velocity (connection):	1820 FPM
		Refrigerant Velocity (tube):	1973 FPM

Heating Air Data

Face Velocity/Bank:	402.8 FPM	Air Flow @ Sea Level:	1200 SCFM	1200 SCFM
Entering Dry:	20.0 °F	Leaving Dry:	115.4 °F	
Air Side Fouling Factor:	0.0000 ft ² °F h/Btu	Air Pressure Drop:	0.29 inWG	

Heating Refrigerant Data

Vapor Temp:	200 °F	Refrigerant Pressure Drop:	2.89 PSIG
Condensing Temp:	115 °F	Refrigerant Mass Flow:	1365 lb/h
Subcooling:	5.4 °F	Refrigerant Velocity (connection):	1324 FPM
		Refrigerant Velocity (tube):	618 FPM

Warning - Dropped Tubes (6) exceeds 5% of Total Tubes (104).

Coil is outside of the scope of AHRI Standard 410.

All ratings assume a standard coil orientation with horizontal tubes and a vertical coil face with horizontal airflow.

User assumes responsibility for material compatibility and for reasonable operating conditions/parameters for the special fluid.

Version:6.27.2017.1



Condensing Coil Report

Customer Name	Date	9/26/2023, 1:33:17 PM
Contact	Reference	
Phone	PreparedBy	
Email	Project	Nunez CC Aerospace & Steam Reno

Model Number: 38C13x33-11-1-W-E-R

Tag: OAU-1-1 HGRH

Coil Data

		Per Coil	Total
Bank Quantity:	1	Circuiting: 1/12/1/SE	
Fin Height (each coil):	13 In	Supply Conn. Size/Type/Header Mat.: 7/8" Sweat Copper / Copper	
Fin Length (each coil):	33 In	Return Conn. Size/Type/Header Mat.: 7/8" Sweat Copper / Copper	
Fins Per Inch:	11	Tubes Tall: 13	
Rows:	1	Approx Internal Volume: 60.29 in ³	60.29 in ³
Fin Material:	Aluminum 0.006/Waffle	Coil Weight (bare): 25.65 lb	25.65 lb
Tube Dia/Material:	3/8 Copper 0.020	Coil Weight (crated): 113.85 lb	
Tube Surface:	Smooth		
Casing Material:	16 ga. 304 Stainless Steel	Capacity: 20,615 Btu/hr	20,615 Btu/hr
Coating:	None		

Air Data

Entering Dry Bulb:	55.0 °F	Air Flow @ Sea Level:	1200 SCFM	1200 SCFM
Face Velocity/Bank:	402.8 FPM	Leaving Dry Bulb:	70.7 °F	
Air Side Fouling Factor:	0.0000 ft ² °F h/Btu	Air Pressure Drop:	0.04 inWG	

Refrigerant Data

Refrigerant:	R410a	Subcooling:	5.4 °F
Condensing Temp:	115 °F	Refrigerant Pressure Drop:	3.07 PSIG
Vapor Temp:	200 °F	Refrigerant Mass Flow:	225 lb/h
		Refrigerant Velocity:	218 FPM

Warning - Dropped Tubes (1) exceeds 5% of Total Tubes (13).

Limit Warning - Dropped Tubes (1) exceeds 0% of Total Tubes (13).

Hot Gas Line Connection Warning - Tube Velocity (218 fpm [1.11 mps]) is outside the range of 1000 thru 4000 fpm [5.08 mps thru 20.32 mps].

Coil is outside of the scope of AHRI Standard 410.

Use of the Specified Fin Surface is NOT AHRI Certified.

Use of the Specified Fin Material is NOT AHRI Certified.

Use of the Specified Tube Material is NOT AHRI Certified.

All ratings assume a standard coil orientation with horizontal tubes and a vertical coil face with horizontal airflow.

User assumes responsibility for material compatibility and for reasonable operating conditions/parameters for the special fluid.

Version:6.27.2017.1

Sound Power

Sound Power (db)								
Frequency	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Inlet	73	70	64	60	62	55	53	48
Discharge	86	79	74	70	72	67	66	63
Radiated	61	57	49	43	47	43	27	21

Options

Controls

Overflow Switch: Factory mounted Overflow Switch

Warranty

Parts: 4 year extended parts only

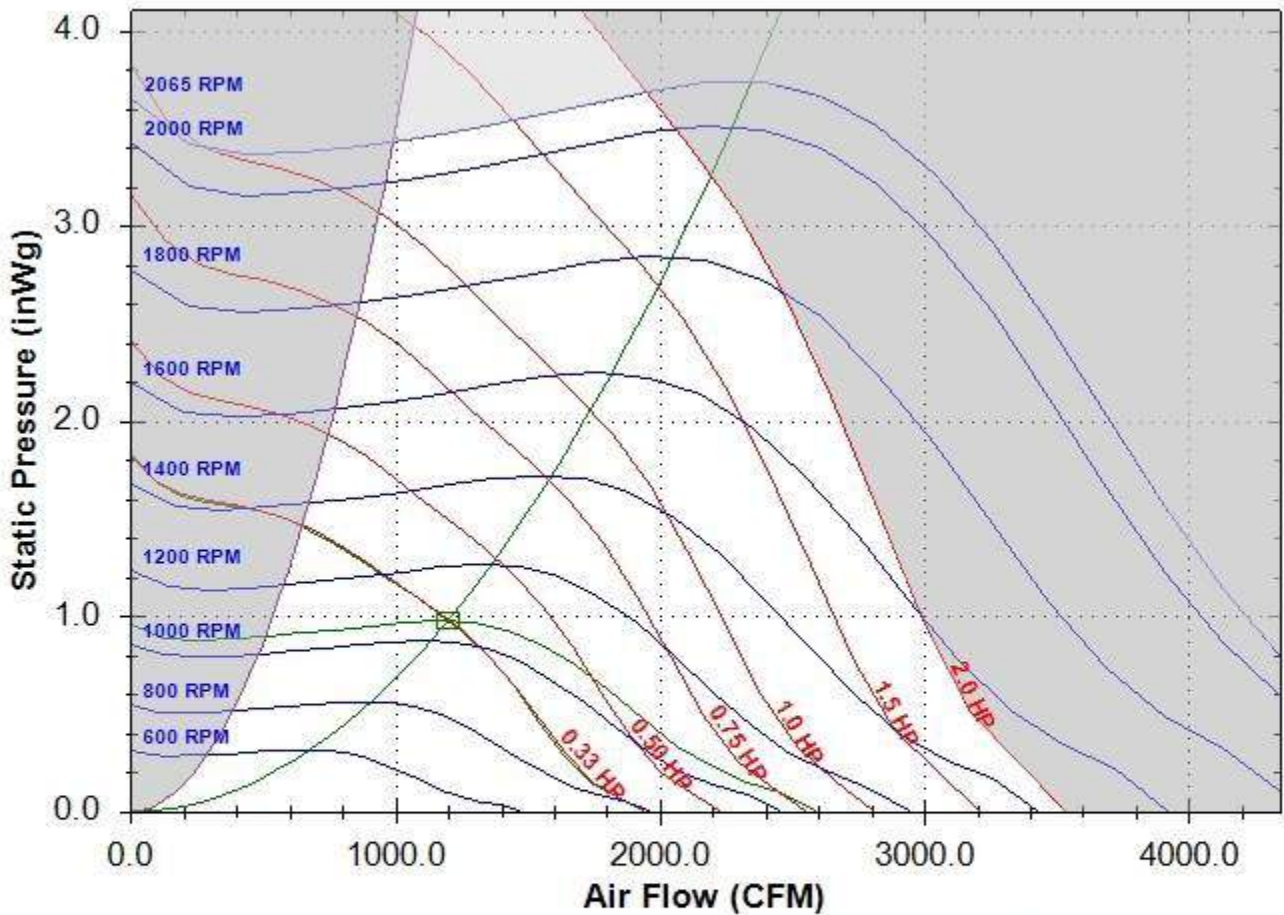
AHRI Certification



All equipment is rated and certified in accordance with AHRI 430.

Notes

Daikin Air Handler Packaged Fan Selection



10.0 DWDI - Forward Curved Supply Fan at Standard Conditions			
Base Tag	OAU-1-1	Date	Sep-26-2023
Job Name	Nunez CC Aerospace & Steam Renova...	Time	1:52 PM
Air Volume	1200 CFM	Fan Speed	1056 RPM
Total Static	0.98 inWg	Max Speed	2065 RPM
Brake Horsepower	0.33 HP	Efficiency	56.3 %

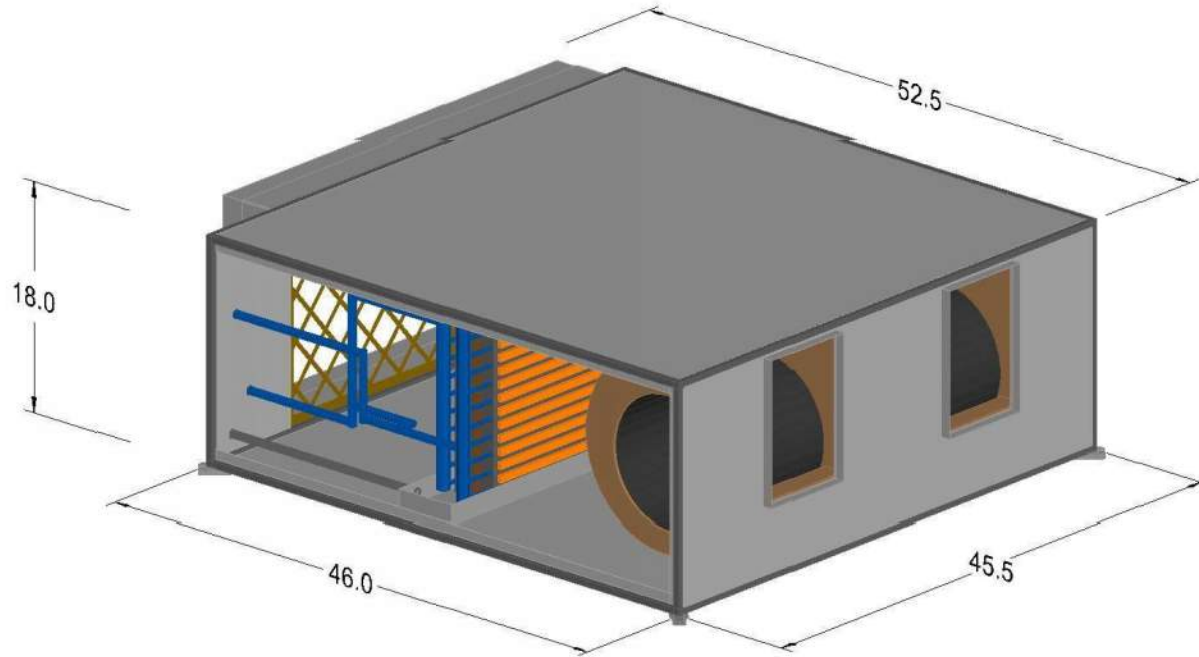


ZL20WM

Nunez CC Aerospace & Ste


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9/26/2023



OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 06.21
Model: BCHD0161		Sept. 26, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	

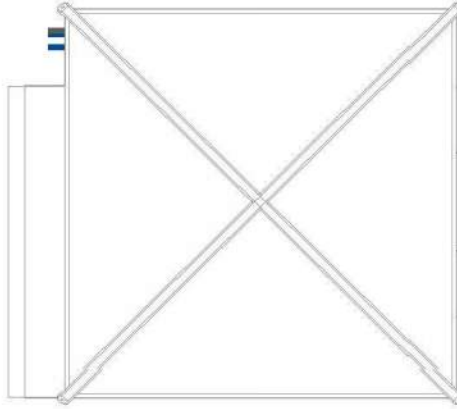
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Nunez CC Aerospace & Ste

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BOTTOM VIEW



BACK VIEW

OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 06.21
Model: BCHD0161		Project Name: Nunez CC Aerospace &		Sales Engineer:			
Sept. 26, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]		

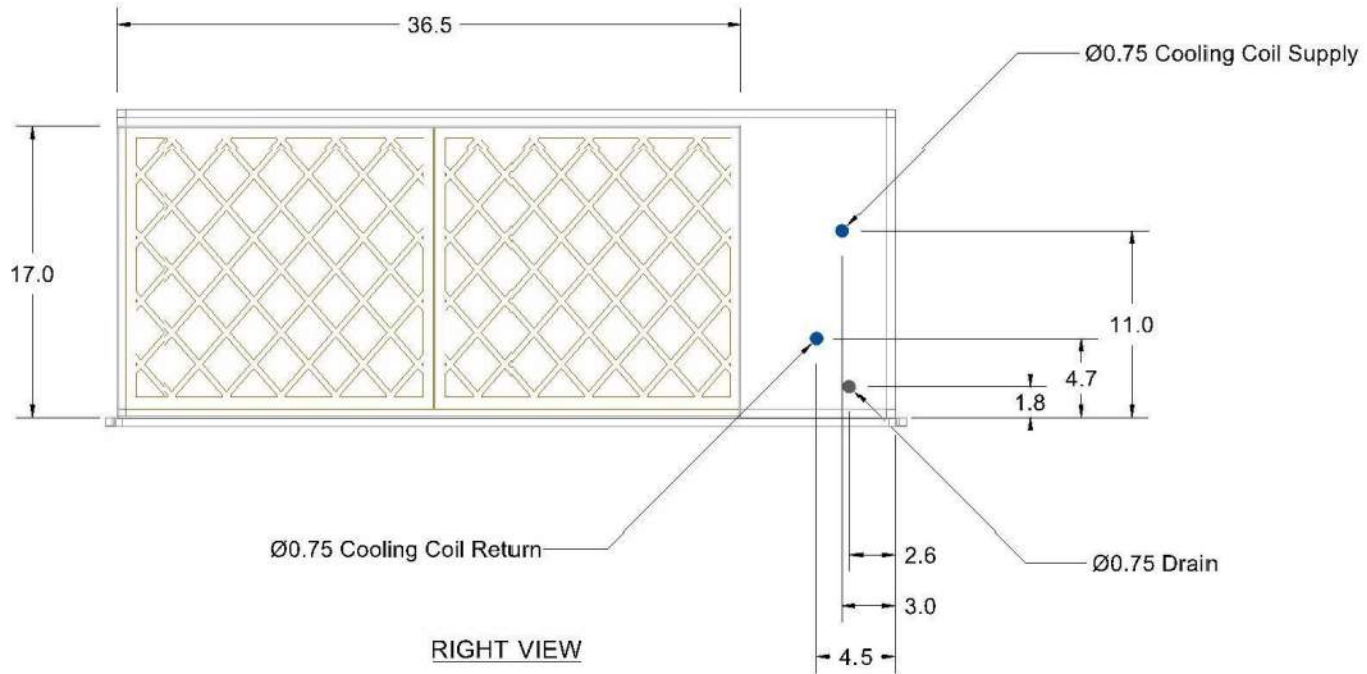
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Nunez CC Aerospace & Ste


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9/26/2023



OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 06.21
Model: BCHD0161		Project Name: Nunez CC Aerospace &		Sales Engineer:			
Sept. 26, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]		

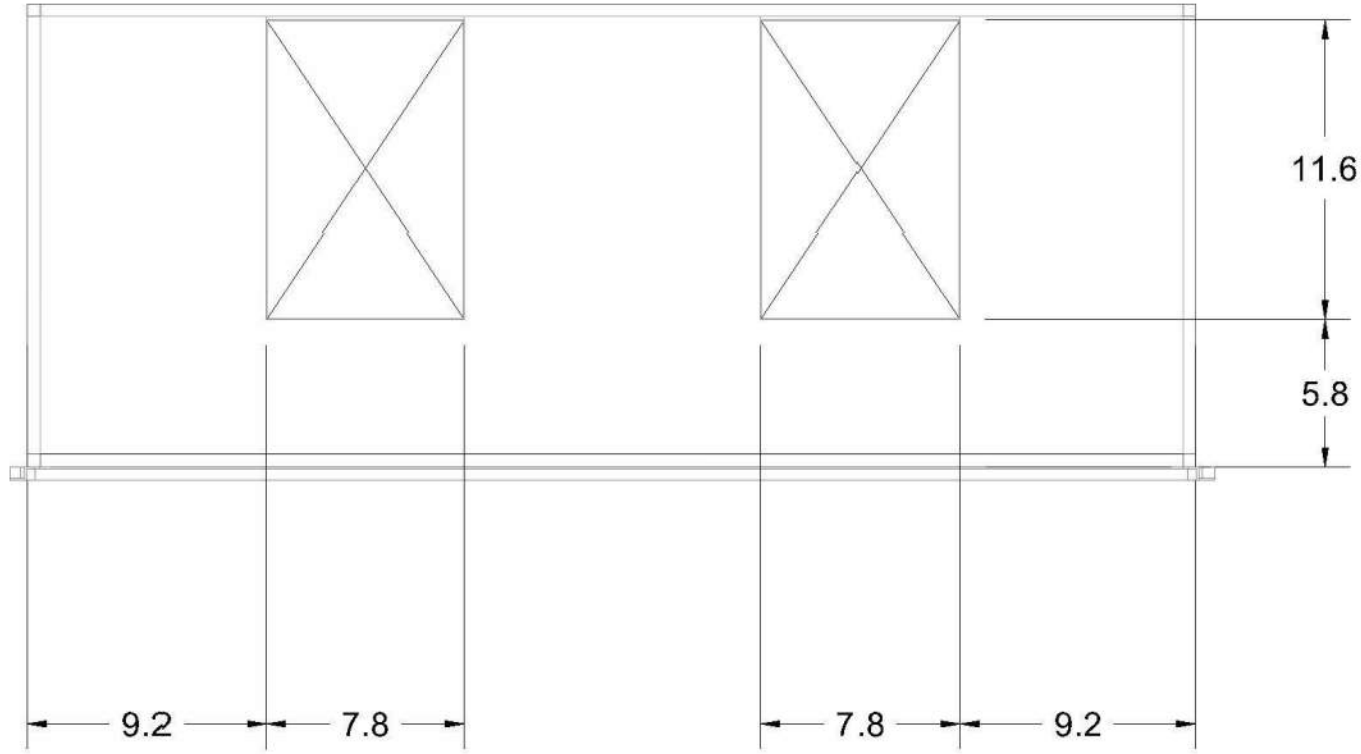
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9/26/2023



DISCHARGE VIEW

OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 06.21
Model: BCHD0161		Project Name: Nunez CC Aerospace &		Sales Engineer:			
Sept. 26, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]		

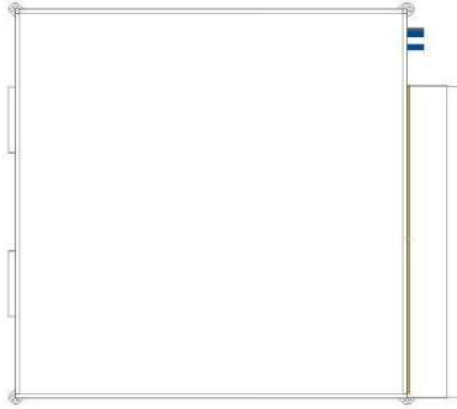
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TOP VIEW



FRONT VIEW

OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com Software Version: 06.21
Model: BCHD0161		Project Name: Nunez CC Aerospace &		Sales Engineer:			
Sept. 26, 2023	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 0.25"	Dwg Units: in [mm]		

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.

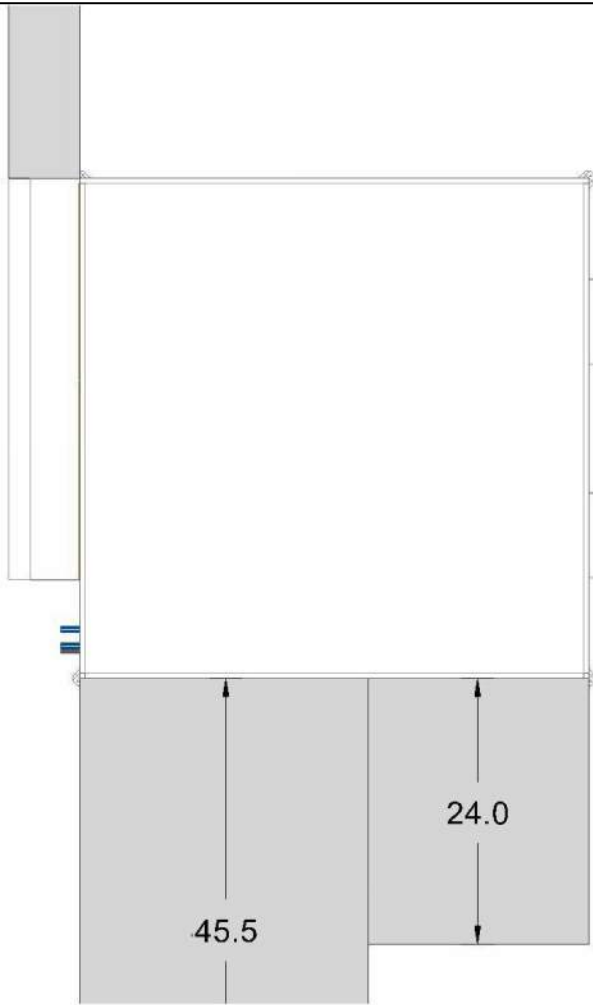
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Nunez CC Aerospace & Ste

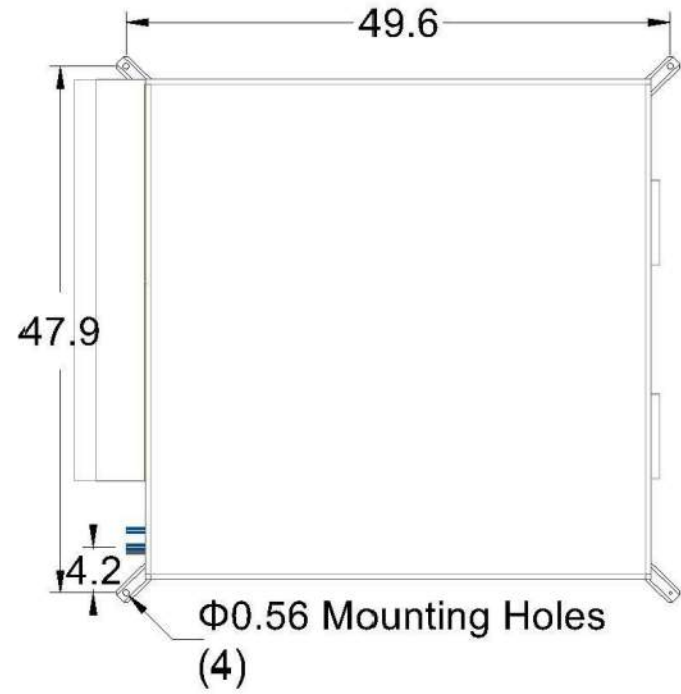
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9/26/2023

18.3




Plan View - Service Clearance



Plan View - Mounting

OAU-1-1

Preciseline Drawings

Product: PreciseLine® Air Handler		Unit Tag: OAU-1-1		Sales Office: Mid-South Equipment Sales and			
Model: BCHD0161		Project Name: Nunez CC Aerospace &		Sales Engineer:			
Sept. 26, 2023		Ver/Rev:		Sheet: 1 of 1		13600 Industrial Park Blvd. Minneapolis, MN 55441	
				Scale: NTS		Tolerance: +/- 0.25"	
				Dwg Units: in [mm]		www.DaikinApplied.com Software Version: 06.21	

No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.



Tag: OAU-1-1 HP Coil: EKEXV400-US
 Tag: OAU-1-1 Reheat Coi: EKEXV50-US

Submittal Data Sheet

AHU Integration Kit – Expansion Valve
 EKEXV***-US

DESCRIPTION

Allows for connection and control of non-VRV air handling equipment to Daikin VRV condensing units.

EKEXV***-US operates in conjunction with EKEQ(M/F)CBAV3-US.



FEATURES

- Electronic expansion valve capable of 2000 steps
- 18 MBH to 192 MBH individual coil capacity capability
- Suitable for indoor and outdoor installation
- Compatible with both EKEQMCAV3-US and EKEQFCBAV3-US AHU Integration Kit control boxes

SPECIFICATIONS

Model No.	EKEXV50-US	EKEXV63-US	EKEXV80-US	EKEXV100-US	EKEXV125-US
Nominal Capacity (MBh)	18	24	30	36	48
Height (in.)	15 - 25/32"	15 - 25/32"	15 - 25/32"	15 - 25/32"	15 - 25/32"
Width (in.)	8 - 15/32"	8 - 15/32"	8 - 15/32"	8 - 15/32"	8 - 15/32"
Depth (in.)	3 - 5/64"	3 - 5/64"	3 - 5/64"	3 - 5/64"	3 - 5/64"
Liquid Pipe Connection*	1/4"	3/8"	3/8"	3/8"	3/8"
Gas Pipe Connection	1/2"	5/8"	5/8"	5/8"	5/8"
Power Supply	12V DC from EKEQ box				

SPECIFICATIONS

Model No.	EKEXV140-US	EKEXV200-US	EKEXV250-US	EKEXV400-US	EKEXV500-US
Nominal Capacity (MBh)	60	72	96	144	192
Height (in.)	15 - 25/32"	15 - 25/32"	15 - 25/32"	15 - 25/32"	15 - 25/32"
Width (in.)	8 - 15/32"	8 - 15/32"	8 - 15/32"	8 - 15/32"	8 - 15/32"
Depth (in.)	3 - 5/64"	3 - 5/64"	3 - 5/64"	3 - 5/64"	3 - 5/64"
Liquid Pipe Connection*	3/8"	3/8"	3/8"	1/2"	5/8"
Gas Pipe Connection	5/8"	3/4"	7/8"	1-1/8"	1-1/8"
Power Supply	12V DC from EKEQ box				

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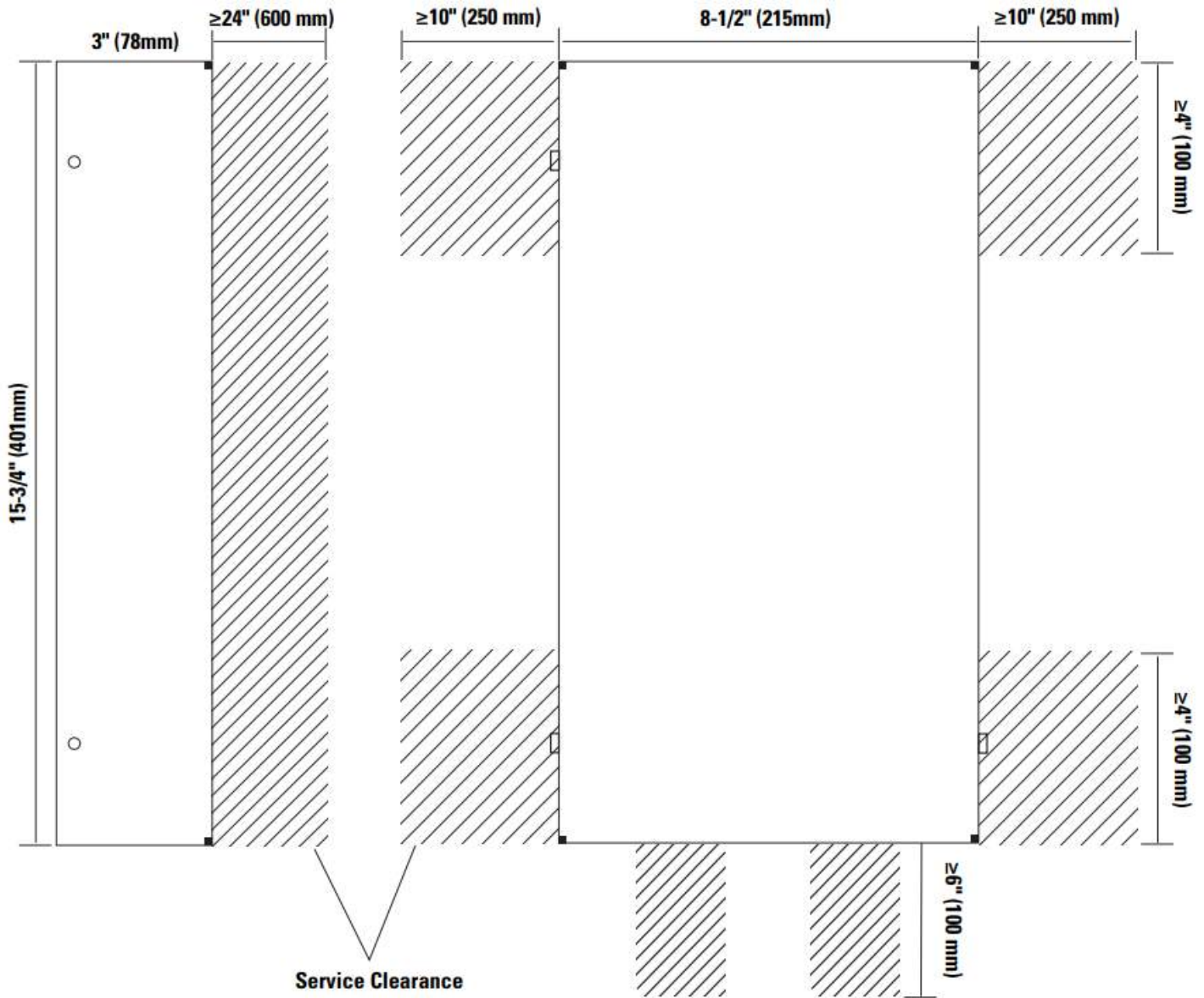
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Submittal Data Sheet

AHU Integration Kit – Expansion Valve
EKEXV***-US

DEMENSIONS



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Submittal Data Sheet

AHU Integration Kit—Re-Heat

EKEQDCBAV3-US

60 Hz, 208/230 V

PRODUCT IMAGE:



FEATURES

- All electric ventilation with cooling and heating via heat recovery **VRV** with fully modulating Hot Gas Reheat
- Wide cooling & heating range EAT of AHU 16 - 110°FDB (89°FWB)
- Flexibility to chose AHU partner
- Up to 10 AHUs on one **VRV** ODU system
- Modular, decentralized design capability to reduce cross-contamination
- Simplicity for ease of design

Specifications:

Model		EKEQDCBAV3-US	
Power supply		1 phase, 60Hz, 208/230V	
Casing		SPCC	
Dimensions: (H × W × D)	in.	10-1/4 × 18-1/8 × 5-1/4	
	mm	260 × 460 × 133	
Color		Ivory white	
Ambient temperature		14 to 104°FDB (-10 to 40°CDB)	
Weight	lbs	13.9	
	kg	6.3	
Standard accessories	Description		QTY.
	Thermistor for entering air (R1T)		1
	Thermistor for gas line and liquid line on DX coil (R2T/R3T) and on RH coil (R5T/R6T)		4
	Thermistor for discharge air (R4T)		1
	Insulation sheet		4
	Rubber sheet		4
	Wire to wire splice		12
	Installation manual		1
	Tie wrap		8
	Capacity setting adaptor		9
	Insulation tube		1
Mandatory accessories	EEV VALVE KITS LIST		EKEXV50
	*These EEV VALVE is mandatory kit for AHU Integration Kit—Re-Heat installation. Please refer to Engineering data book for the further selection methodology.		EKEXV63
			EKEXV80
			EKEXV100
			EKEXV125
			EKEXV140
			EKEXV200
			EKEXV250
EKEXV400			
Optional accessories	BRC REMOTE CONTROLLER		BRC1E72, BRC1E73

Note:

1. ITM can be connectable with DDC controller via BACnet.
2. Only use this system in combination with a field-supplide DOAS unit.
Do not connect this system to other indoor units.
3. Refer to the EEV VALVE KITS LIST for the application of the valve kits.
4. This kit is designed for indoor installation only. (No laundry room installation)

Electrical Characteristics:

EKEQDCBAV3-US

Model	Power supply					SCCR
	Hz	Volts	Voltage range	MCA	MOP	
EKEQDCBAV3-US	60	208/230 V	Max. 253 V Min. 187 V	0.3	15	SCCR kA rms, Symmetrical @600V MAX:5

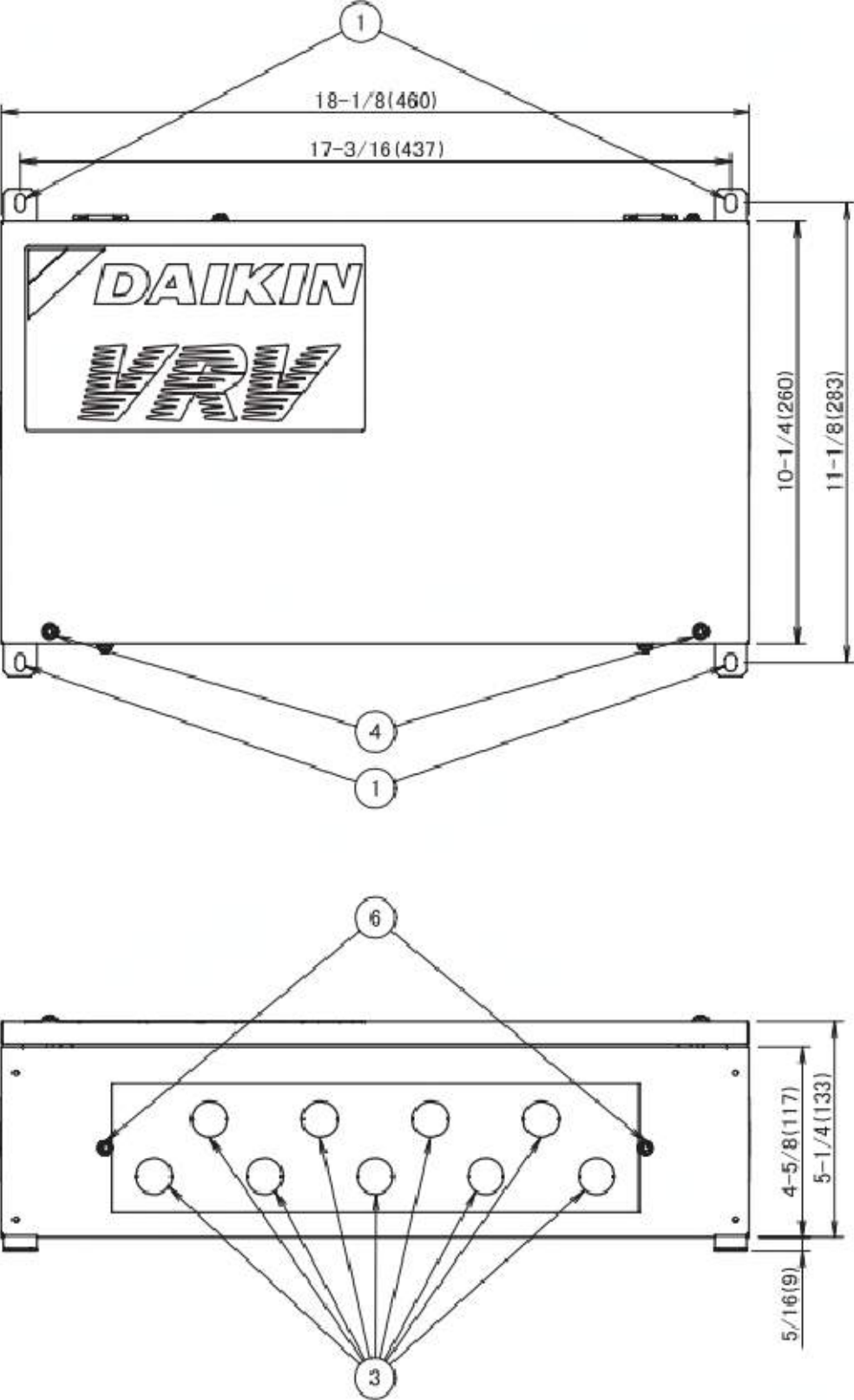
Symbol:

MCA: Min. Circuit Amps (A)
MOP: Max. Overcurrent Protective Device (A)
SCCR: Short-Circuit Current Rating

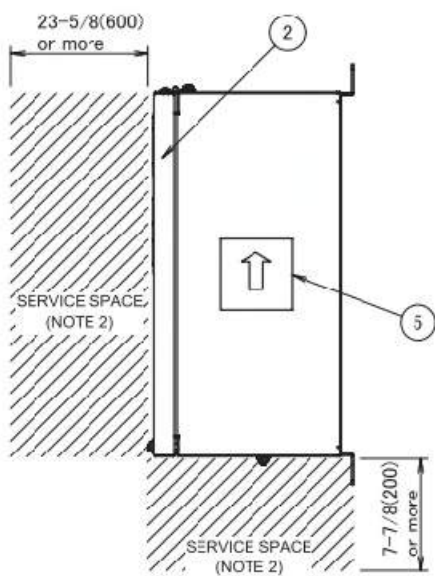
Note:

1. Voltage range
Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.
2. Maximum allowable voltage unbalance between phase is 2%.
3. Select wiring size based on the MCA.
4. MOP is used to select the circuit breaker

Dimensions:



Unit : in. (mm)



- ① 4 HOLES TO FIX THE CONTROL BOX
- ② CONTROL BOX LID
- ③ WIRING CONNECTION HOLES
- ④ SCREW FOR TOP COVER
- ⑤ ORIENTATION LABEL
- ⑥ SCREW FOR BOTTOM SHEET METAL BRACKET

Notes:

1 INSTALLATION:

MAKE SURE THAT THE CONTROL BOX IS INSTALLED VERTICALLY, SCREW NUTS POSITION DOWNWARDS.

THE EXPANSION VALVE CAN BE INSTALLED INSIDE AND OUTSIDE. THE CONTROL BOXES CAN BE INSTALLED ONLY INSIDE.

DO NOT INSTALL THE CONTROL BOXES IN OR ON THE OUTDOOR UNIT.

CHOOSE A FLAT AND STRONG MOUNTING SURFACE. OPERATION TEMPERATURE OF THE CONTROL BOX IS BETWEEN -10°C AND 40°C.

DO NOT BUNDLE TOGETHER WIRINGS THAT ARE CONNECTED FROM THE DIFFERENT TERMINAL BLOCKS.

MAKE SURE TO KEEP ENOUGH SPACE AND GAP WHEN CONNECTING FIELD WIRES TO TERMINAL BLOCKS THROUGH CONDUIT / BOTTOM SHEET METAL BRACKET.

2 SERVICE SPACE:

KEEP THE SPACE IN FRONT AND BOTTOM OF THE BOXES FREE FOR FUTURE MAINTENANCE.



Submittal Data Sheet

KHRP26A250T

Multi-port Twinning Kit

DESCRIPTION

The multi-port twinning kit is used to join two connections downstream of the branch selector unit when the total capacity of the indoor units is larger than 54,000 btu/hr (maximum of 96,000 btu/hr).

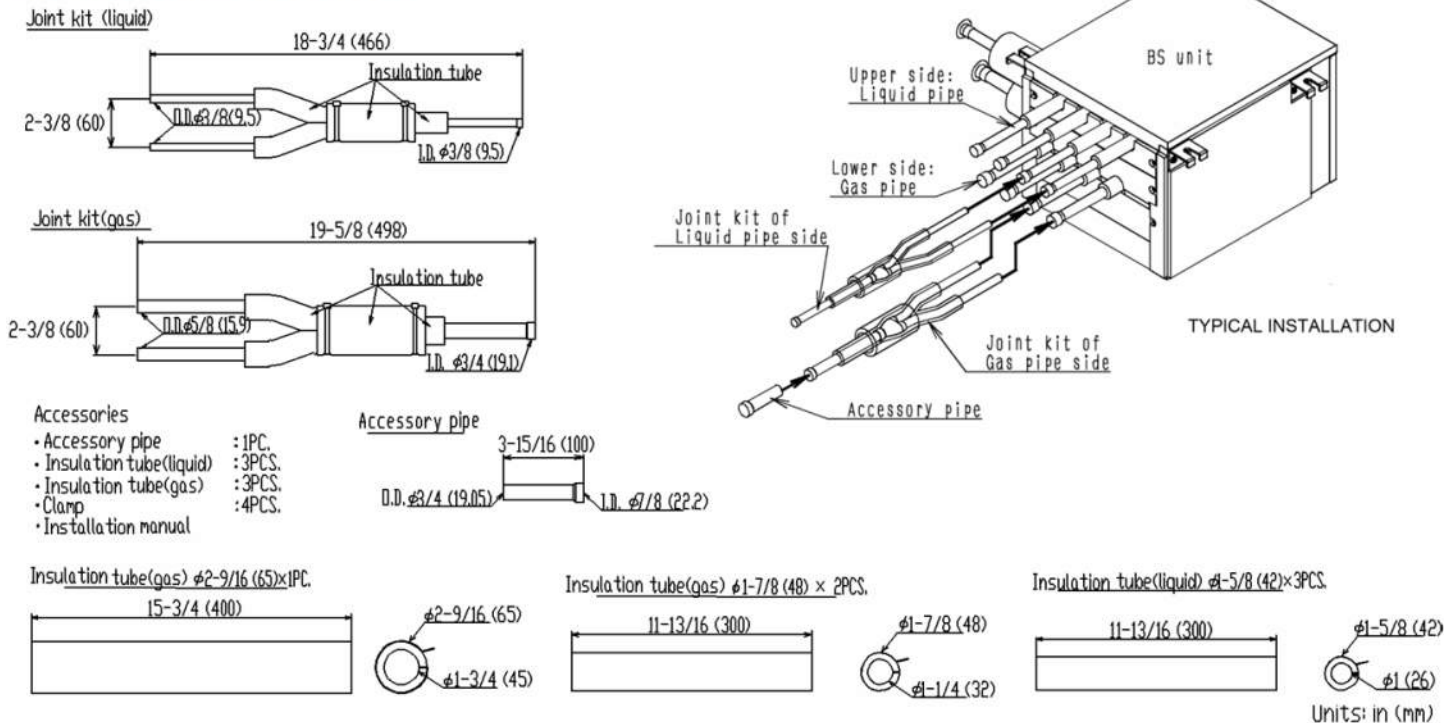


SPECIFICATIONS

Model No.:	KHRP26A250T
Components Included:	Gas side joint, liquid side joint, accessory pipe, insulation tubes, clamps and installation manual
Unit Compatibility:	BS4Q54TVJU, BS6Q54TVJ, BS8Q54TVJ, BS10Q54TVJ, BS12Q54TVJ
Unit Weight:	Total kit shipping weight: 2.3 lbs (1 kgs)
Dimensions:	Refer to Dimensional Drawing
Material / Finish:	ACR Copper Alloy C12200

- Notes:**
- 1) In applications where installations are in an environment requiring fire-rated materials to be used, it is necessary for the installer to obtain from a third party supplier and to utilize, for insulation, fire-rated materials that meet all applicable building codes and other requirements. The Factory-provided insulation that is supplied with the kit should be discarded in a manner meeting all applicable laws.
 - 2) The insulation of the refrigerant piping must be reinforced based on the environment of the installation. Otherwise dew may condense on the surface of insulation.
 - 3) Refer to Engineering Data for any restrictions.

DIMENSIONAL DRAWINGS



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Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name: _____	Approval: _____
Location: _____	Date: _____
Engineer: _____	Construction: _____
Submitted to: _____	Unit #: _____
Submitted by: _____	Drawing #: _____
Reference: _____	

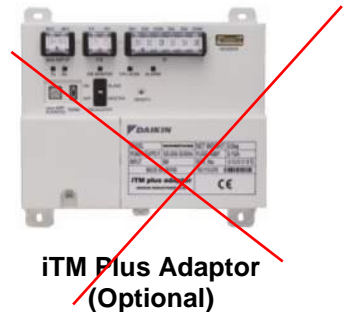
SPECIFICATIONS:

Model	DCM601B71	DCM601A72
Description	intelligent Touch Manager (iTM)	iTM Plus Adaptor
Maximum Indoor Unit Groups	64	64
Max Indoor Units	128	128
Max Outdoor Units	10	10
Max BACnet Servers	50	-
System Total	512 Indoor Unit Groups (1024 Indoor Units)	
Power Supply	24 VAC, 60 Hz	24 VAC, 60 Hz
Power Consumption	23 Watts	23 Watts
Operating Temp Range	32-104°F	14 - 122°F
Operating Humidity Range	85% or less (w/o condensation)	85% or less (w/o condensation)
Dimensions (W x H x D)	11.42 x 9.57 x 1.97 in.	6.30 x 5.87 x 2.41 in.
Weight (Mass)	5.3 lbs. (2.4 kg)	1.1 lbs. (0.5 kg)
Certifications	FCC Part 15 Class B	
DIII-NET Systems	1	1
RJ-45 (Ethernet) 100Base-TX or 10Base-T	2	N/A
USB Port-USB2.0 (2GB to 32GB)	1	N/A
RS485 (19 - 22 AWG)	1	1
Digital Input forced shutdown of all indoor unit systems	1	N/A
Digital Input and/or Pulse Input Terminals	3 x 10 mA @ 16 VDC/ 3 x 1 pulse at 1 or 10 kWh at 100 ms interval	4 x 10 mA @ 16 VDC/ 4 x 1 pulse at 1 or 10 kWh at 100 ms interval

PRODUCT IMAGE:



iTM



**iTM Plus Adaptor
(Optional)**

OPTIONS:

- Software Options:
 - Power Proportional Distribution (PPD) Option (DCM002A71) ⁽¹⁾
 - Web (HTTP) Interface Software (DCM007A51)
 - BACnet Client Option Software (DCM009A51)
 - BACnet/IP Server Gateway Option (DCM014A51) ⁽²⁾⁽³⁾
- Hardware Options:
 - iTM Plus Adapter (DCM601A72) for expanding indoor unit groups up to 512 groups (1024 indoor units)
 - WAGO I/O basic kit (60359653) and I/O modules for controlling/ monitoring of external equipment via Di, Do, Ai, Ao and Pi
- Spare Parts:
 - iTM Sliding Door (Part# B72A930)
 - SD Card (Part# 2336767)



Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name:	Approval:
Location:	Date:
Engineer:	Construction:
Submitted to:	Unit #:
Submitted by:	Drawing #:
Reference:	

Notes:

- (1) The Power Proportional Distribution (PPD) option supplies the user with a reasonably calculated apportionment of the total power consumption by the Daikin air-conditioning system to individual units on the system. Because input to the PPD includes measured pulses in the refrigerant system and because the air-conditioning system includes number of variables, to include operating temperatures and pressures, piping lengths, heat exchange rates and others, no meter-type apportionment of individual user's consumption can be made. However, the PPD feature provides an apportionment methodology that uses highly advanced technology as applied to the many variables in the air-conditioning system.
- (2) The BACnet Server Gateway option cannot use together with the BACnet Client software option.
- (3) BACnet/IP Server Gateway option is not compatible with the VAM unit or the Low Temp Hydrobox.

MODEL COMPATIBILITY:

The following indoor units are compatible with the iTM:

System	Model
VRV and VRV Life™	FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, CXTQ, VAM*, Low Temperature Hydrobox (HXY48TAVJ)*
SkyAir	FAQ, FBQ, FCQ, FHQ, FTQ
Single Zone/Multi Zone/SkyAir	<ul style="list-style-type: none"> FDMQ, FFQ_Q FFQ_LVJU with the use of the Interface Adaptor DTA112BA51 FTXS, CTXS, CTXG, FTXG, FDXS, CDXS, FVXS with the use of the DIII-Net Adapter KRP928BB2S FTK_N, FTX_N, FTX_U, FTXN, and FTKN with the use of the DIII-Net Adapter KRP928BB2S and an Interface adaptor KRP067A41E/KRP980B1/KRP980B2E

**iTM BACnet Server Gateway Option is not compatible with VAM unit and LT Hydrobox*

The outdoor operational data is available for the following outdoor unit models:

VRV Family	Model
VRV III S	RXYMQ_PVJU
VRV IV S	RXTQ_TAVJU
VRV LIFE	RXSQ_TAVJU
VRV III	RXYQ_PBTJ, RXYQ_PBYD, REYQ_PATJ, REYQ_PBTJ, REYQ_PBYD, REYQ_PCTJ, REYQ_PCYD, RWEYQ_PTJU and RWEYQ_PYDN
VRV AURORA	RXLQ_TATJU, RXLQ_TAYDU, RXLQ_TAYCU, RELQ_TATJU, RELQ_TAYDU and RELQ_TAYCU
VRV IV X	REYQ_XATJU, REYQ_XAYDU, REYQ_XAYCU, RXYQ_XATJA, RXYQ_XAYDA, REYQ_XATJA, REYQ_XAYDA, REYQ_XAYCA
VRV T	RWEQ_TATJU, RWEQ_TAYDU, RWEQ_TAYCU
VRV IV	RXYQ_TTJU, RXYQ_TATJU, RXYQ_TAYDU, REYQ_TATJU, REYQ_TAYDU, RXYQ_TAYCU, RXYQ_TYDN, REYQ_TAYCU, REYQ_TTJU, REYQ_TYDN, RWEYQ_PCTJ and RWEYQ_PCYD
VRV Emerion	REYQ_AATJA, REYQ_AAYDA, RXYQ_AATJA, RXYQ_AAYDA



Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name: _____

Location: _____

Engineer: _____

Submitted to: _____

Submitted by: _____

Reference: _____

Approval: _____

Date: _____

Construction: _____

Unit #: _____

Drawing #: _____

FEATURES:

1. **Management size** - up to 512 indoor unit groups (1024 indoor units).
 - a. The iTM can manage one (1) DIII-Net system which can have up to 64 indoor unit groups (128 indoor units).
 - b. The iTM can manage up to eight (8) DIII-Net systems with the addition of the iTM Plus Adapter which can manage one (1) DIII-Net system each. This means up to seven (7) iTM adapters can be daisy chained to the iTM.
2. **Control / Monitoring**
 - a. Independent Cool and Heat setpoints
 - i. Setpoint tracking for full range of setpoint differentials
 - b. Independent Cool and Heat Setback setpoints (unoccupied)
 - i. Adjustable timed override
 - c. Room temperature displayed in 0.1°F
 - d. Scheduling: 7, 5+2, 5+1+1, 1 (Everyday) weekly patterns
 - i. Optimum Start
 - ii. Schedule the capacity demand limit of the outdoor unit's compressor by 0%, 40%, 70% or 100%
 - iii. Schedule the outdoor unit low noise operation
 - e. Auto-changeover: Fixed, Individual, Average, and Vote
 - i. Weighted demand (0-3) configurable for Average and Vote methods
 - ii. Adjustable (1-4°F) Primary and Secondary changeover bands
3. **Web Accessibility**
 - a. Web and Alert Email function standard with iTM
 - b. All iTM configuration/setup can be done through Web Option or touch screen
4. **Visual Navigation Screen**
 - a. Floor plan layout view is available
 - b. Graphical User Interface (GUI) for BACnet IP Client management points
5. **Easy installation**
 - a. Wall mount and flush mount installation.
 - b. Automatic indoor unit registration and indoor unit model detection.
6. **Easy Engineering**
 - a. iTM can be configured off site via Pre-setting Tool.
 - b. All data can be uploaded and downloaded by USB flash drive.
7. **Building facilities management**
 - a. The iTM is equipped with 3 digital/pulse inputs and the iTM Plus Adapter comes equipped with 4 digital/pulse inputs.
 - b. Building ancillary equipment can be connected by using the WAGO I/O system (optional).
 - i. I/O configuration for Digital Input, Digital Output, Analog Input, Analog Output and Pulse Input.
 - c. BACnet IP Client management points with BACnet Client option (optional).
 - i. AI, AO, AV, BI, BO, BV, MI, MO and MV
- ~~8. **Power Proportional Distribution (PPD) (Optional)**~~
 - ~~a. Provide function to distribute the energy consumption of the Outdoor units to the selected indoor unit group address, based on indoor unit operation duration, electronic expansion valve opening ration, indoor size etc.~~
 - ~~b. Up to 512 indoor unit group address~~
 - ~~c. PPD data can be downloaded in CSV format to a PC or USB flash drive~~

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DCM601B71 – intelligent Touch Manager

Project Name:	Approval:
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Engineer:	Construction:
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9. Web (HTTP) Interface Software (Optional)

- a. Provide function to monitor and control up to 512 indoor unit group addresses by a BMS via HTTP protocol.
- b. The following data points are available: Fan Speed - Louver Direction - Ventilation Mode - Ventilation Amount - Normal/Error monitor - On/Off - Operation Mode - Setpoint - Room Temp

10. BACnet Client (Optional)

- a. Monitor and control equipment and sensors connected to a BACnet server via BACnet IP.
 - i. Up to 50 BACnet IP servers can be connected

11. BACnet Server Gateway (Optional)

- a. Provide function to monitor outdoor units and control indoor units by BMS via BACnet IP.
 - i. Up to 128 BACnet Device IDs (including indoor unit groups and outdoor units)
 - ii. Up to 4000 BACnet objects
 - iii. Virtual BACnet router function embedded
 - i. Individual and configurable Device ID for each indoor unit group and/or outdoor unit system.

12. History

- a. All errors, operations, automatic controls and status changes are stored in history (up to 500,000 items).

13. D-Net compatible (Service option)

- a. Remote monitoring of VRV equipment status and reporting

14. Operation Data

- a. Operation data are stored in the iTM every minute for the last 5 days.
 - i. Indoor and outdoor unit operation data.
 - ii. BACnet Client management data points (AI, AO, AV, BI, BO, BV, MI, MO and MV).
 - iii. WAGO IO system data points (External DI, DIO, PI, AI and AO).
- b. The operation data can be exported through the iTM web browser or a USB drive based on a specified period. (See iTM BACnet Server points list below for IDU/ODU operational data list)

15. Demand Limiting

- a. Interlock the digital input signals to provide the following automatic demand control functions
 - i. Indoor unit set-point shift control
 - ii. Indoor unit forced thermo-off
 - iii. Indoor unit on/off control
 - iv. Outdoor unit's capacity demand limit control

WIRING SPECIFICATION:

Specifications of Communication Cabling	
DIII-Net	
Type	2-conductor, stranded, non-shielded copper cable / PVC of vinyl jacket
Size	AWG 18-2
Total Length	Maximum wiring distance between units 3,280 ft. Total wire length 6,560 ft.
iTM Plus Adapter	
Type	2-conductor, stranded, non-shielded copper cable / PVC of vinyl jacket
Size	AWG 18-2
RS485 Length	Maximum distance between iTM and furthest iTM Plus Adapter 150 ft.
Total Length	Maximum wiring distance between units 3,280 ft. Total wire length 6,560 ft.

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Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name: _____	Approval: _____
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WAGO	
Type	2-conductor, stranded, non-shielded copper cable / PVC of vinyl jacket (CPEV or FCPEV)
Size	2 Wire AWG 24 - 18 stranded
Total Length	Maximum wiring distance between iTM and Bus Coupler 1640 ft.

BACNET CLIENT OPTION MANAGEMENT POINTS:

- The following BACnet object types can be monitored and controlled by iTM through BACnet Client Option (DCM009A51) via the BACnet/IP protocol:

Object Type #	Object Name	Description
0	Analog Input	Analog input value such as a temperature and measurement value.
1	Analog Output	Analog output value such as a setting value (For example, can be used as the analog input value of a setting value).
2	Analog Value	Analog input value such as a temperature and measurement value or analog output value such as a setting value.
3	Binary Input	Digital input value such as an On/Off status and error status.
4	Binary Output	Digital output value such as an On/Off operation (For example, can be used as the digital input value of an On/Off operation).
5	Binary Value	Digital input value such as an On/Off status and error status or digital output value such as an On/Off operation.
13	Multi-state Input	Digital input value such as an operation mode
14	Multi-state Output	Digital output value such as an operation mode (For example, can be used as the digital input value of an operation mode).
19	Multi-state Value	Digital input value such as an operation mode or digital output value such as an operation mode.

BACNET/IP SERVER GATEWAY OPTION POINTS LIST:

- System configuration points linked to iTM control logic (one set of points per iTM):**

Point Name	Point Description
Enable ITM Schedule Operation	Enable or Disable iTM Schedule operation
Enable ITM Auto Changeover Operation	Enable or disable iTM Auto changeover logic.
Timed Override Minutes	Set override time in minutes
System Forced Off	The Forced System Stop command will force the indoor unit to stop running. Remote controllers will be locked out from restarting indoor units during the forced system stop event.

- Indoor unit monitoring points (one set of points per indoor unit group):**

Point Name	Point Description
Unit On_Off Status	Monitors if the indoor unit fan is On or Off



Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

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Submitted to: _____	Unit #: _____
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Reference: _____	

Alarm Status	Monitors whether or not the indoor unit is operating normally, and issues an alarm if the indoor unit has a malfunction. Error Code is shown in the description.
Room Temperature	Monitors and displays the room temperature.
Unit On Details	Indoor unit details operation Off - Normal (ON) - Override - Setback
Filter Sign Status	Monitors filter run time and provides service alert.
Indoor Fan Status	Monitors if the indoor unit fan is On or Off
Communication Status	Monitor if the communication is Normal or in Alarm
Thermo-on Status	Monitors whether or not the indoor unit is actively cooling or heating.
Compressor Status	Monitors if the compressor of the outdoor unit is On/Off/Defrost
Aux Heater Status	Monitors if the external heater controlled by the indoor unit is operating.
Changeover Option	Monitor if iTM changeover logic is Active.
Return Air Temperature	Monitors and displays the return air temperature.
Discharge Air Temperature	Monitors and displays the discharge air temperature of the FXMQ_PB indoor unit only.
Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature.
Gas Pipe Temperature	Monitors and displays the gas pipe temperature.
EV Position	Monitors and displays the expansion valve position.
Freeze Protection	Monitors if the freeze protection is active (For FXEQ_P, FXFQ_T, FXTQ_TA, FXUQ_P, FXZQ_TA, FXSQ_TA, CXTQ_TA indoor unit only).

• **Indoor unit monitoring and control points (one set of points per indoor unit group):**

Point Name	Point Description
Occupancy Mode	Set the occupancy of the indoor unit Occupied , Unoccupied or Standby
Operation mode	Set Cool - Heat -Fan -Dry operation mode. for the indoor unit and monitors the latest mode
Occ Cooling Setpoint	Sets the occupied cooling setpoint of the indoor unit and monitors the latest setpoint value.
Occ Heating Setpoint	Sets the occupied heating setpoint of the indoor unit and monitors the latest setpoint value.
Unocc Cooling Setpoint	Sets the unoccupied cooling setpoint of the indoor unit and monitors the latest setpoint value.
Unocc Heating Setpoint	Sets the occupied heating setpoint of the indoor unit and monitors the latest setpoint value.
Max Cooling Setpoint	Sets the maximum cooling setpoint of the indoor unit and monitors the latest setpoint value.
Min Cooling Setpoint	Sets the minimum cooling setpoint of the indoor unit and monitors the latest setpoint value.
Max Heating Setpoint	Sets the maximum Heating setpoint of the indoor unit and monitors the latest setpoint value.
Min Heating Setpoint	Sets the minimum heating setpoint of the indoor unit and monitors the latest setpoint value.
Min Setpoint Differential (Cooling & Heating)	Set the minimum differential value between cooling and heating setpoint and monitor the latest differential value.
Cooling & Heating Setpoint Tracking Mode	Enable or disable iTM setpoint tracking mode.
Fan speed	Sets the indoor unit fan speed and monitors the latest setting



Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name: _____	Approval: _____
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Reference: _____	

Timed Override Operation	Enable or disable iTM override timer
Remote Controller Prohibit (On_Off)	Permits or prohibits the remote controller to control the indoor unit's On/Off.
Remote Controller Prohibit (Operation Mode)	Permits or prohibits the remote controller to control the indoor unit's Operation mode.
Remote Controller Prohibit (Setpoint)	Permits or prohibits the remote controller to control the indoor unit's Setpoint.
Filter Sign Reset	Clears the filter sign status.
Forced Thermo-off	Force the indoor unit to stop actively cooling or heating.

• **Outdoor unit monitoring points*:**

Point Name	Point Description
Communication Status	Monitors and displays the communication status <i>(General)</i>
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool) <i>(General)</i>
Outdoor Unit Alarm Status	Monitors whether or not the outdoor unit is operating normally. <i>(General)</i>
Defrost Mode	Monitors if the defrost mode is active. <i>(General)</i>
Oil Return Mode	Monitors whether or not the outdoor unit is in oil return operation. <i>(General)</i>
Electric Power	Monitors and displays the electric power (calculated). <i>(General)</i>
Electric Current	Monitors and displays the electric current (calculated). <i>(General)</i>
System Capacity Code	Monitors and displays the system capacity code. <i>(General)</i>
Outdoor Air Temperature	Monitors and displays the outdoor air temperature. <i>(General)</i>
M_Condensing Pressure	Monitors and displays the condensing pressure <i>(Master Module)</i>
M_Evaporating Pressure	Monitors and displays the evaporating pressure <i>(Master Module)</i>
M_Condensing Temperature	Monitors and displays the condensing temperature <i>(Master Module)</i>
M_Evaporating Temperature	Monitors and displays the evaporating temperature <i>(Master Module)</i>
M_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 <i>(Master Module)</i>
M_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 <i>(Master Module)</i>
M_Fan Step	Monitors and displays the fan step <i>(Master Module)</i>
M_EV Position 1	Monitors and displays the position of the expansion valve1 <i>(Master Module)</i>
M_EV position 2	Monitors and displays the position of the expansion valve2 <i>(Master Module)</i>
M_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 <i>(Master Module)</i>
M_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 <i>(Master Module)</i>
M_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature <i>(Master Module)</i>
M_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX <i>(Master Module)</i>
M_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX <i>(Master Module)</i>
M_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer <i>(Master Module)</i>



Submittal Data Sheet

DCM601B71 – intelligent Touch Manager

Project Name:	
Location:	Approval:
Engineer:	Date:
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Reference:	Drawing #:

M_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX <i>(Master Module)</i>
M_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX <i>(Master Module)</i>
M_Suction Temperature	Monitors and displays the suction temperature <i>(Master Module)</i>
M_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature <i>(Master Module)</i>
M_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature <i>(Master Module)</i>
M_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature <i>(Master Module)</i>
M_Subcool EV Position	Monitors and displays the subcool expansion valve position <i>(Master Module)</i>
S1_Condensing Pressure	Monitors and displays the condensing pressure <i>(Sub Module1)</i>
S1_Evaporating Pressure	Monitors and displays the evaporating pressure <i>(Sub Module1)</i>
S1_Condensing Temperature	Monitors and displays the condensing temperature <i>(Sub Module1)</i>
S1_Evaporating Temperature	Monitors and displays the evaporating temperature <i>(Sub Module1)</i>
S1_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 <i>(Sub Module1)</i>
S1_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 <i>(Sub Module1)</i>
S1_Fan Step	Monitors and displays the fan step <i>(Sub Module1)</i>
S1_EV Position 1	Monitors and displays the position of the expansion valve1 <i>(Sub Module1)</i>
S1_EV position 2	Monitors and displays the position of the expansion valve2 <i>(Sub Module1)</i>
S1_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 <i>(Sub Module1)</i>
S1_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 <i>(Sub Module1)</i>
S1_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature <i>(Sub Module1)</i>
S1_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX <i>(Sub Module1)</i>
S1_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX <i>(Sub Module1)</i>
S1_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer <i>(Sub Module1)</i>
S1_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX <i>(Sub Module1)</i>
S1_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX <i>(Sub Module1)</i>
S1_Suction Temperature	Monitors and displays the suction temperature <i>(Sub Module1)</i>
S1_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature <i>(Sub Module1)</i>
S1_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature <i>(Sub Module1)</i>
S1_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature <i>(Sub Module1)</i>
S1_Subcool EV Position	Monitors and displays the subcool expansion valve position <i>(Sub Module1)</i>
S2_Condensing Pressure	Monitors and displays the condensing pressure <i>(Sub Module2)</i>
S2_Evaporating Pressure	Monitors and displays the evaporating pressure <i>(Sub Module2)</i>
S2_Condensing Temperature	Monitors and displays the condensing temperature <i>(Sub Module2)</i>
S2_Evaporating Temperature	Monitors and displays the evaporating temperature <i>(Sub Module2)</i>
S2_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 <i>(Sub Module2)</i>

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DCM601B71 – intelligent Touch Manager

Project Name:	Approval:
Location:	Date:
Engineer:	Construction:
Submitted to:	Unit #:
Submitted by:	Drawing #:
Reference:	

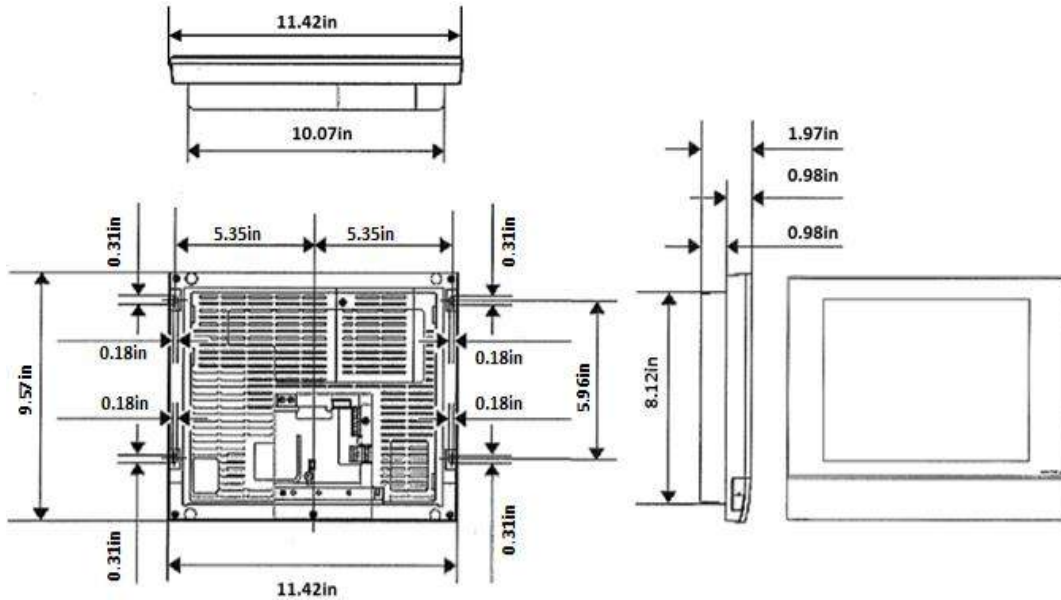
S2_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 (<i>Sub Module2</i>)
S2_Fan Step	Monitors and displays the fan step (<i>Sub Module2</i>)
S2_EV Position 1	Monitors and displays the position of the expansion valve1 (<i>Sub Module2</i>)
S2_EV position 2	Monitors and displays the position of the expansion valve2 (<i>Sub Module2</i>)
S2_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 (<i>Sub Module2</i>)
S2_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 (<i>Sub Module2</i>)
S2_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature (<i>Sub Module2</i>)
S2_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX (<i>Sub Module2</i>)
S2_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX (<i>Sub Module2</i>)
S2_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer (<i>Sub Module2</i>)
S2_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX (<i>Sub Module2</i>)
S2_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX(<i>Sub Module2</i>)
S2_Suction Temperature	Monitors and displays the suction temperature (<i>Sub Module2</i>)
S2_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature (<i>Sub Module2</i>)
S2_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature (<i>Sub Module2</i>)
S2_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature (<i>Sub Module2</i>)
S2_Subcool EV Position	Monitors and displays the subcool expansion valve position (<i>Sub Module2</i>)

DIMENSIONS:

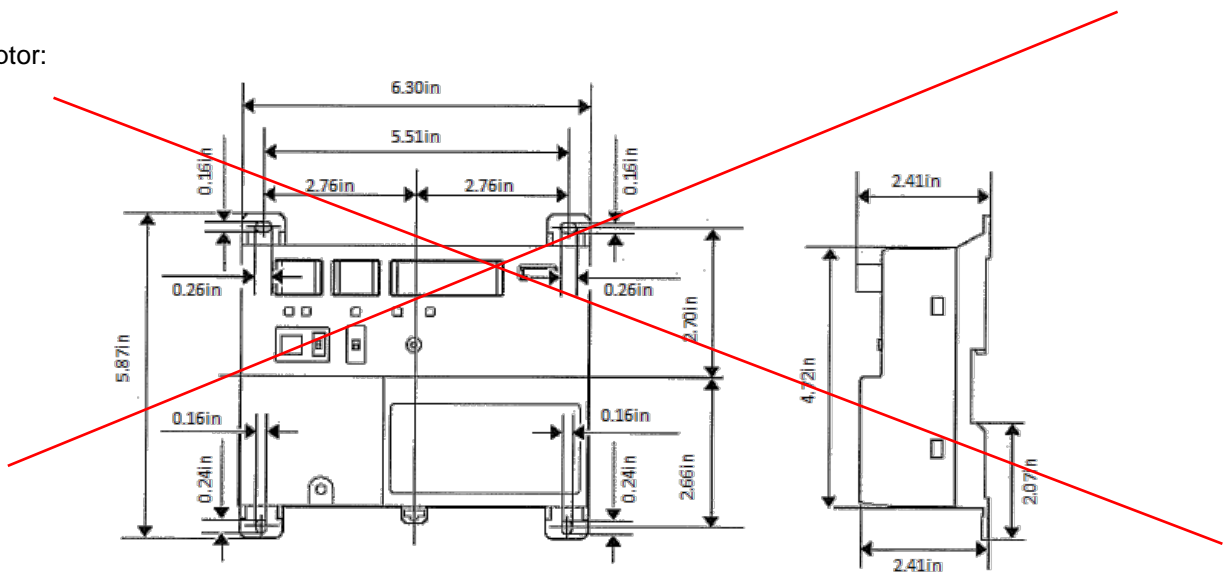
iTM:

Project Name: _____
 Location: _____
 Engineer: _____
 Submitted to: _____
 Submitted by: _____
 Reference: _____

Approval: _____
 Date: _____
 Construction: _____
 Unit #: _____
 Drawing #: _____



iTM Plus Adaptor:



DOCUMENTATION:

Documentation available on www.daikincity.com and/or www.daikinac.com:

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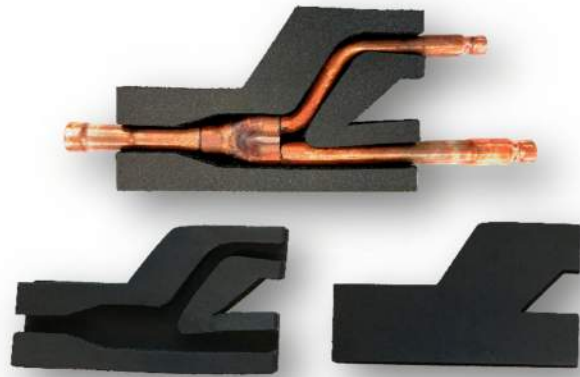
3 PIPE REFNET JOINT
KHRP25M73TUA

DESCRIPTION

REFNET Joints provide a factory designed option for the branching within the refrigerant piping network.

FEATURES

- Engineered for uniform refrigerant flow and refrigerant distribution.
- Designed to help smoother oil return.
- Flexible installation; vertical or $\pm 30^\circ$ from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation¹ for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.
- Insulation tested in accordance with ASTM E84 – Class A



*Picture for reference only



SPECIFICATIONS

Model No.:	KHRP25M73TUA		
Piping Material:	ACR Copper Alloy C12200		
Ports / Branches:	2		
Included in Branch Kit:	1 pcs. – Suction Gas Side		
	1 pcs. – Discharge Gas Side		
	1 pcs. - Liquid Side		
Kit Name:	SUCTION GAS SIDE	DISCHARGE GAS SIDE	LIQUID SIDE
Reducer Fittings:	1 pcs – I.D. Ø 1/2 1 pcs – I.D. Ø 5/8 2 pcs – I.D. Ø 1-1/8	1 pcs – I.D. Ø 3/8 1 pcs – I.D. Ø 1/2 2 pcs – I.D. Ø 7/8	1 pcs – I.D. Ø 1/4 1 pcs – I.D. Ø 3/8 2 pcs – I.D. Ø 1/2
Insulation Material:	Polypropylene		
Insulation Quantity (per Header):	1 pcs.	1 pcs.	1 pcs.
Insulation Flammability	ASTM E84 – Class A		
Flame Spread Index	< 25		
Smoke Develop Index	< 50		
Indoor Unit Capacity Index:	≥ 246		
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations		

Notes:

- 1) The insulation of the refrigerant piping must be reinforced based on the environment of the installation. Otherwise dew may condensate on the surface of insulation.

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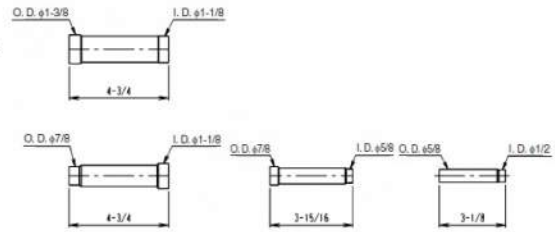
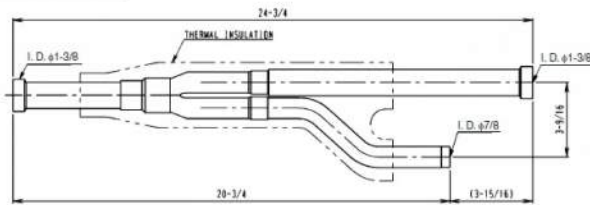
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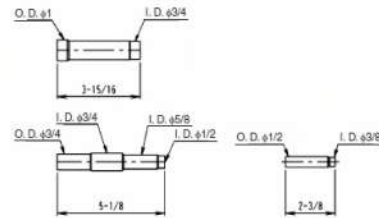
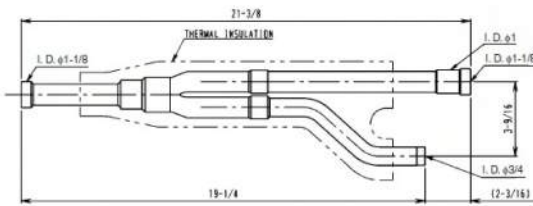
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3 PIPE REFNET JOINT
 KHRP25M73TUA

DIMENSIONAL DRAWING

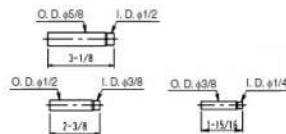
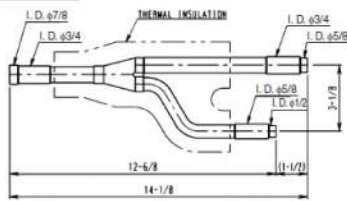
SUCTION GAS SIDE JOINT



DISCHARGE GAS SIDE JOINT



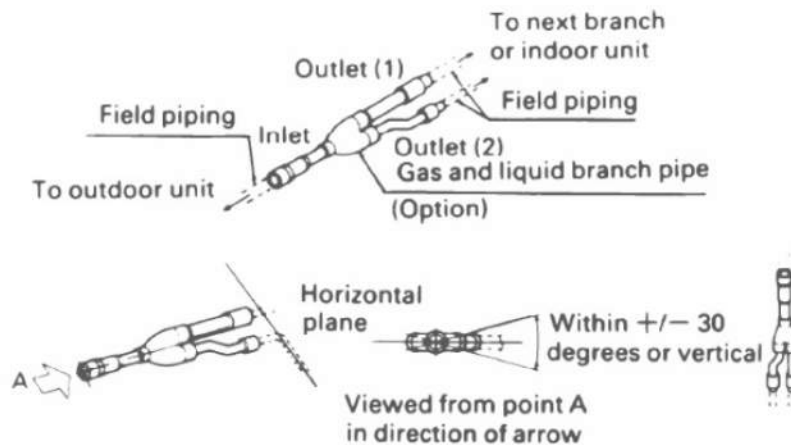
LIQUID SIDE JOINT



ACCESSORY
 REDUCER: SUCTION GAS SIDE JOINT 4 PIECES
 DISCHARGE GAS SIDE JOINT 3 PIECES
 LIQUID SIDE JOINT 3 PIECES
 THERMAL INSULATION: 1 SET
 INSTALLATION MANUAL

D3K05573A

TYPICAL INSTALLATION DRAWING



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Submittal Data Sheet

Heat Recovery / Dual Module Multi Connection Piping Kit
BHFP26P100UA

DESCRIPTION

The Condensing Unit Multi Connection Piping Kit provides a factory engineered method for the connection of multiple single modules to form a multi-module system within the refrigerant piping network.

FEATURES

- Engineered for uniform refrigerant flow and refrigerant distribution
- Designed with tube diameters (I.D. and O.D.) required for VRV system installation
- Installation of $\pm 15^\circ$ from horizontal
- Pre-formed clamshell style insulation¹ for cleaner and reliable application
- Designed to help with smoother oil return
- Insulation tested in accordance with ASTM E84 – Class A



Note: Actual materials and sizes included may differ from photo. Models ending in A will have a black Insulations models ending in U will have a white Insulations



SPECIFICATIONS

Model No.:	BHFP26P100UA		
Components Included:	Suction gas side joint, HP/LP side joint, liquid side joint, reducers, insulation and installation manual		
Unit Compatibility:	REYQ_TATJU, REYQ_TAYDU, REYQ_TAYCU and RELQ_TAYCU		
Unit Weight:	Estimated kit shipping weight: 9 lbs (4 kgs)		
Dimensions (W x H x D):	Refer to Dimensional Drawing and VRV Express Report		
Material / Finish:	Piping Material - ACR Copper Alloy C12200, Insulation Material ¹ - Polypropylene		
# of Condensing Units ² :	2		
	Suction Gas Side	HP/LP Gas Side	Liquid Side
# of Joints:	1	1	1
Joint Insulation Quantity:	1 pcs	1 pcs	1 pcs
Reducer Fitting ³ Quantity:	3 pcs	4 pcs	4 pcs
Piping Insulation Quantity:	2 pcs (large size)		1 pc (small size)
Insulation Flammability	ASTM E84 – Class A		
Flame Spread Index	< 25		
Smoke Develop Index	< 50		

- Notes:**
- 1) The insulation of the refrigerant piping must be reinforced based on the environment of the installation. Otherwise dew may condense on the surface of insulation.
 - 2) Refer to Engineering Data for any restrictions.
 - 3) Refer to Installation Manual for reducer fitting shapes and dimensions.

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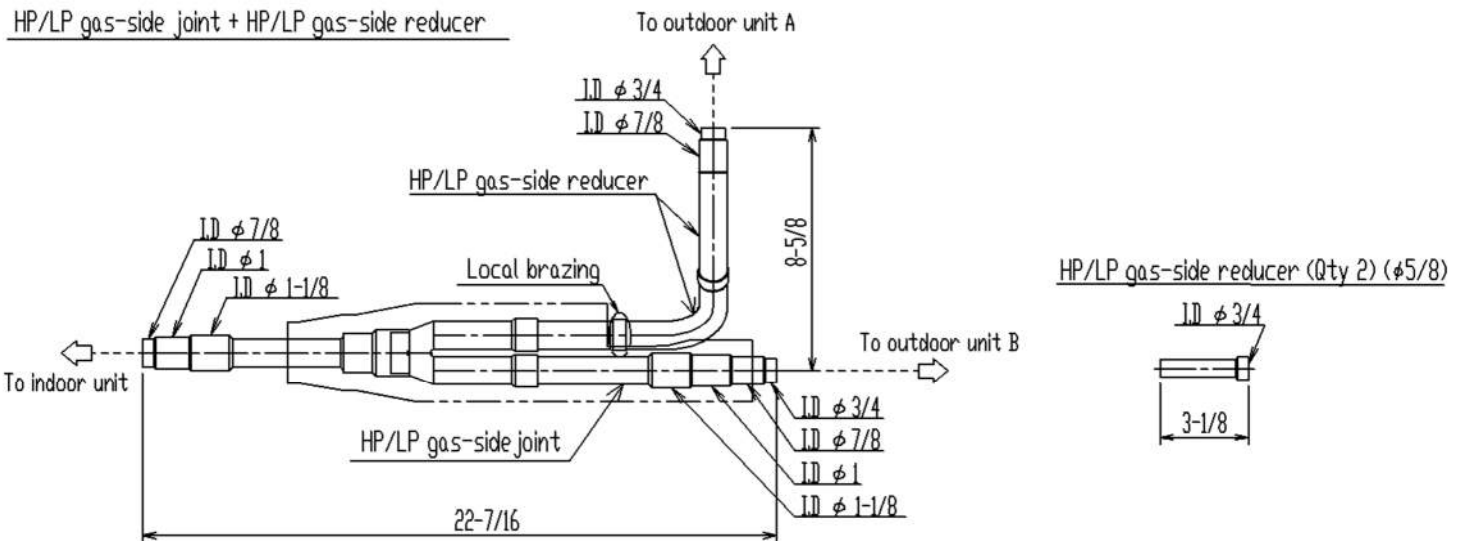
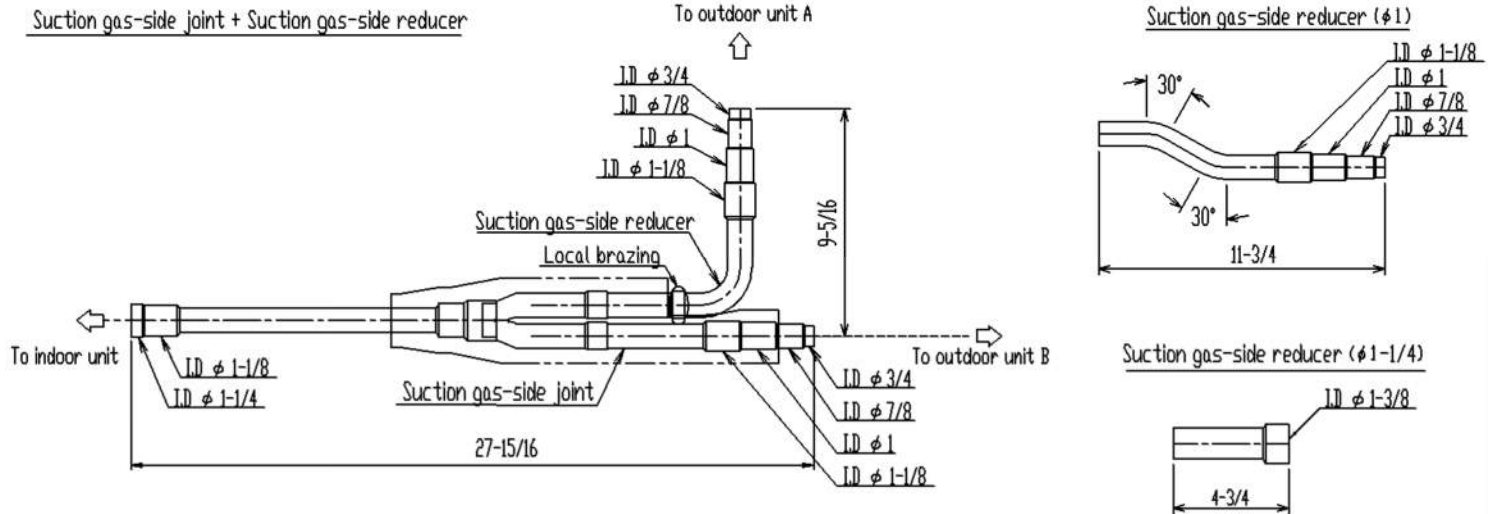
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Submittal Data Sheet

Heat Recovery / Dual Module Multi Connection Piping Kit
BHFP26P100UA

DIMENSIONAL DRAWINGS*



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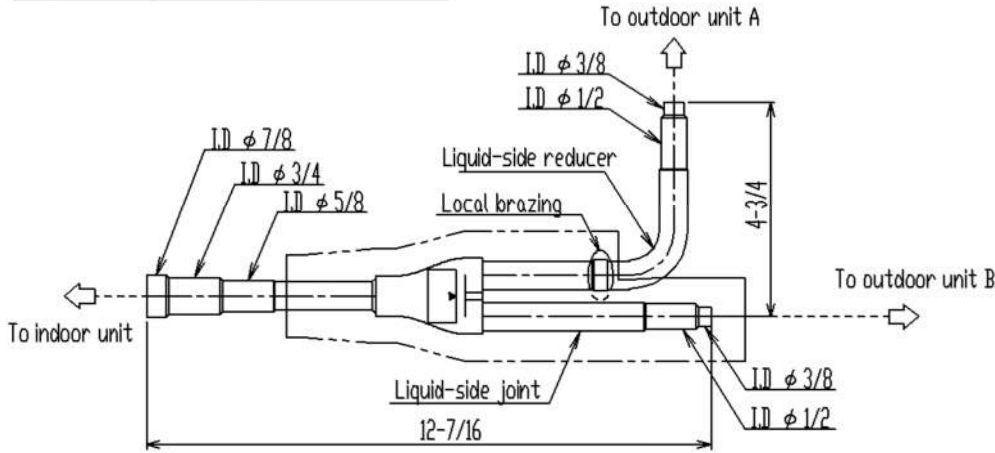
Submittal Data Sheet

Heat Recovery / Dual Module Multi Connection Piping Kit
BHFP26P100UA

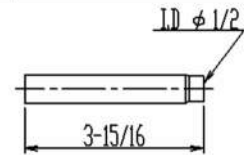
*Refer to Installation Manual for detailed dimensional drawing

DIMENSIONAL DRAWINGS*

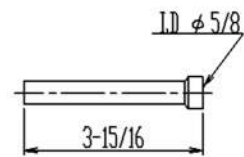
Liquid-side joint + Liquid-side reducer



Liquid-side reducer ($\phi 5/8$)

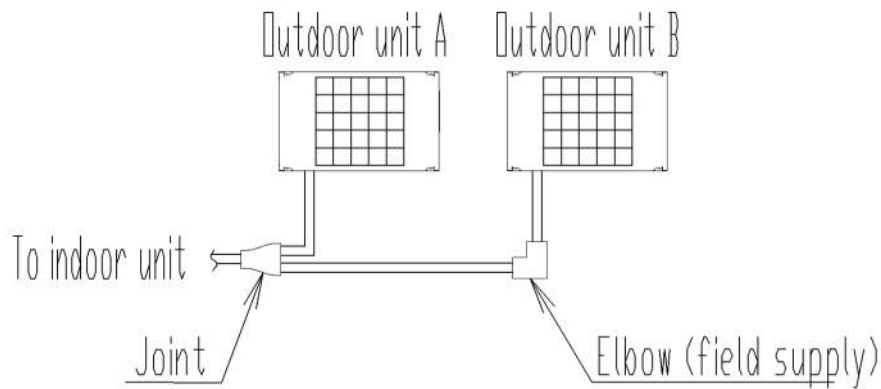


Liquid-side reducer (Qty 2) ($\phi 1/2$)



*Refer to Installation Manual for detailed dimensional drawing

TYPICAL INSTALLATION DRAWINGS (For Reference Only)



Layout drawing (top view)

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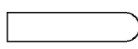
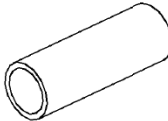
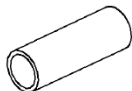
Submittal Data Sheet

Closed Pipe Kit for Branch Selector Box
KHFP26A100CA

DESCRIPTION

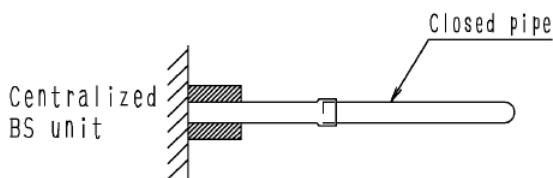
Each Branch Selector boxes comes with 1 set of closed pipe kit to seal off unused piping on the indoor unit side of the branch selector box. The KHFP26A100CA is an additional set of closed pipe kit if more than 1 set of close pipe kit is required.

Components Included:

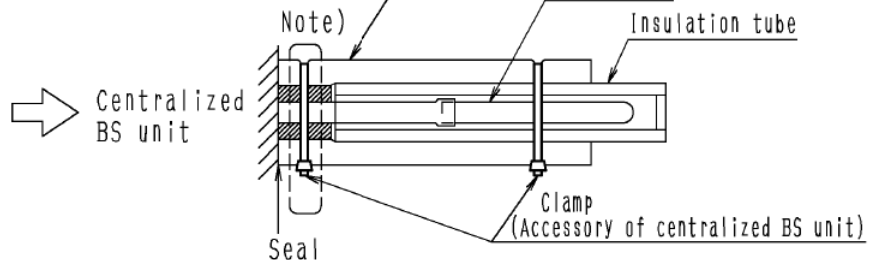
Name	Closed pipe of Gas pipe side	Closed pipe of Liquid pipe side	Insulation tube (Gas pipe side)	Insulation tube (Liquid pipe side)
Quantity	1 pc.	1 pc.	1 pc.	1 pc.
Shape	$\phi 15.9\text{mm}$ ($\phi 5/8$ inch) 	$\phi 9.5\text{mm}$ ($\phi 3/8$ inch) 		

Installation Instruction:

INSTALLATION PROCEDURE



Connect the closed pipe kit to the branch not used.

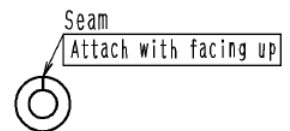


Insulate the closed pipe with insulation tube attached to this kit, and additionally insulate it with insulation tube attached to centralized BS unit.

Note) Clamp at the position of the insulation tube of the centralized BS unit.

<INSULATION INSTALLATION PRECAUTIONS>

1. Seal so that air cannot be in and out of the end.
2. Do not over-tighten the clamp so as to maintain the insulation thickness.
3. Be sure to attach the insulation tube (Accessory of centralized BS unit) with the seam facing up. (See the right figure.)





Submittal Data Sheet

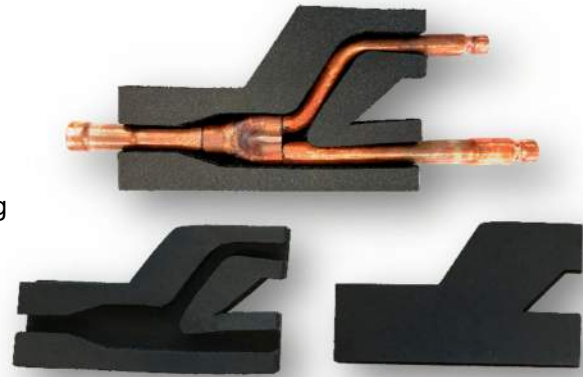
2 PIPE REFNET JOINT
KHRP26A22TA

DESCRIPTION

REFNET Joints provide a factory designed option for the branching within the refrigerant piping network.

FEATURES

- Engineered for uniform refrigerant flow and refrigerant distribution.
- Designed to help smoother oil return.
- Flexible installation; vertical or $\pm 30^\circ$ from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation¹ for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.
- Insulation tested in accordance with ASTM E84 – Class A



*Picture for reference only



SPECIFICATIONS

Model No.:	KHRP26A22TA	
Piping Material:	ACR Copper Alloy C12200	
Ports / Branches:	2	
Included in Branch Kit:	1 pcs. – Gas Side	
	1 pcs. - Liquid Side	
Kit Name:	GAS SIDE	LIQUID SIDE
Reducer Fittings:	1 pcs – I.D. Ø 3/4 1 pcs – I.D. Ø 7/8	–
Insulation Material:	Polypropylene	Polypropylene
Insulation Quantity (per Header):	1 pcs.	1 pcs.
Insulation Flammability	ASTM E84 – Class A	
Flame Spread Index	< 25	
Smoke Develop Index	< 50	
Indoor Unit Capacity Index:	< 72	
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations	

Notes:

- 1) The insulation of the refrigerant piping must be reinforced based on the environment of the installation. Otherwise dew may condensate on the surface of insulation.

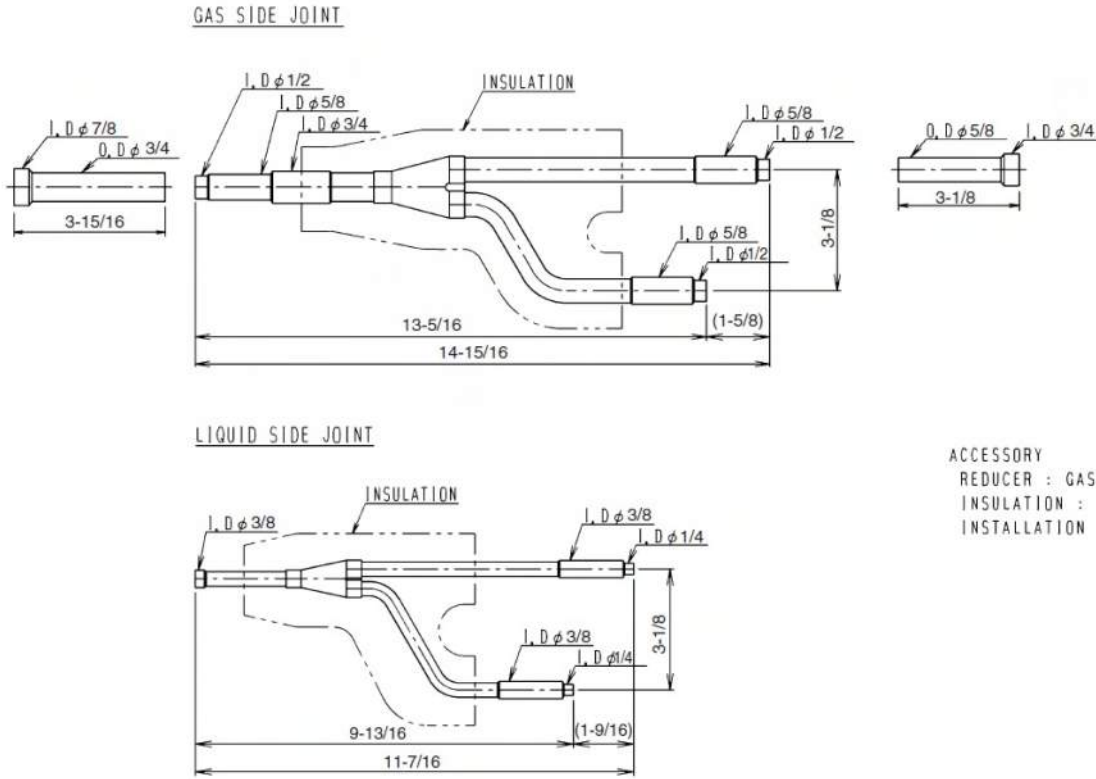
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Submittal Data Sheet
2 PIPE REFNET JOINT
 KHRP26A22TA

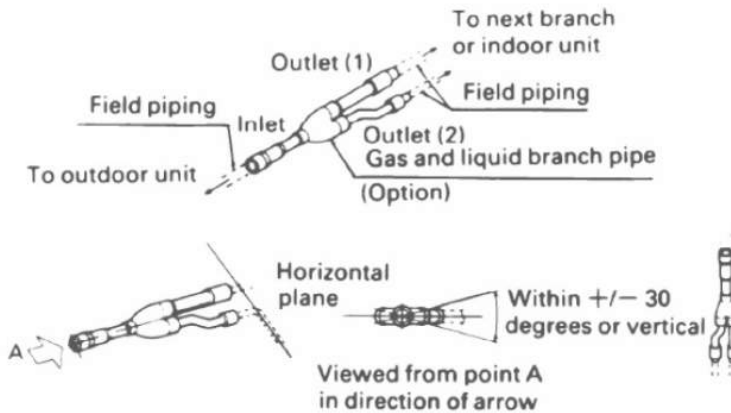
DIMENSIONAL DRAWING



ACCESSORY
 REDUCER : GAS SIDE : 2pcs
 INSULATION : 2pcs
 INSTALLATION MANUAL

C: D3K05234A

TYPICAL INSTALLATION DRAWING



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Project Name:	Approval:
Location:	Date:
Engineer:	Construction:
Submitted to:	Unit #:
Submitted by:	Drawing #:
Reference:	

MODEL COMPATIBILITY:

Compatible with VRV and VRV Life™ indoor unit models: FXAQ, FXDQ, FXEQ, FXFQ, FXHQ, FXLQ, FXMQ, FXMQ_MF, FXNQ, FXSQ, FXTQ, FXUQ, FXZQ, VAM, CXTQ

Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ

Compatible with Single and Multi-zone system indoor unit model: FFQ, FDMQ

SPECIFICATIONS:

Model	BRC1E73
Description	Navigation Remote Controller
Maximum Connections	16 indoor units
Communication Wire	18AWG-2, No polarity Stranded, Non-shielded
Total Wiring Length	1,640 ft. (500 m)
Communication Protocol	Daikin proprietary P1P2 protocol
Power	16VDC supplied by indoor unit (1.58VA maximum)
Comfort Setpoint Range	60 to 90 °F (16 to 32 °C)
Setback Setpoint Range	40 to 95 °F (5 to 35°C)
Operating Temp Range	14 to 122°F (-10 to 50°C)
Operating Humidity Range	75% or less (RH) (without condensation)
Dimensions (WxHxD)	4.72x4.72x0.75 inch (120x120x19 mm)
Weight (Mass)	0.42 lbs. (0.19 kg)

PRODUCT IMAGE:



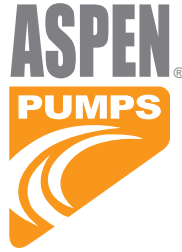
- Notes:
- (1) 1 of 3 display options – Detailed display shown

FEATURES:

1. Up to 16 indoor units are controllable within one group
2. Within one group, up to 2 Navigation Remote Controllers can be used, one as a main and one as a sub
3. Backlit LCD displays in English, Spanish or French
4. Temperature sensor built-in with configurable offset
5. Display of Temperature and Setpoint in 1°F / °C increments
6. Three configurable display options: Detailed, Standard and Simple
7. Dual setpoints (independent cooling and heating setpoints) with configurable minimum setpoint differential or Single Setpoint (occupied period)
8. Setpoint range limit for cooling and heating modes

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Submittal Data Sheet



DACA-CP4-1

Mini Univolt 100-250v Pump Kit

83938 (DACA-CP4-1)

Project Information:

Job Name:

Location:

Engineer:

Submitted to:

For: Reference Approval Construction

Submitted by:

Reference:

Submittal Information:

Approval:

Date:

Construction:

Unit #:

Drawing #:

(Sec. I) Product Specifications:

Pump Length - 7.125"

Pump Width - 2"

Pump Height - 4.5"

Capacity - 2.9 GPH @ 0' Head / 1.2 GPH @ 33' Head

Max BTUs - 54,000

Max Head in Feet - 33

Max Temperature - 104° F

Max Suction Lift - N/A

Sound Level - 21dB(A)

Dry Contact Rating - 3A NC

Voltage - 100-250

Amperes - .17

Watts - 16

Remote Reservoir - Y

Plenum Rated - N

Cable Length - 39"

Pump Selector & Wiring Diagrams Available at

<http://www.rectorseal.com/index.php/daikin/>

DAIKIN

(Sec. II) Ordering Information:

Product Code - 83938

Model - DACA-CP4-1

Carton Qty - 1

Carton Weight - 1.5

(Sec. III) Carton Contents:

Monobloc Pump Assembly

39" Power Cable

Inline Fuse

Installation Manual

Wall Anchors (3)

Screws (3)

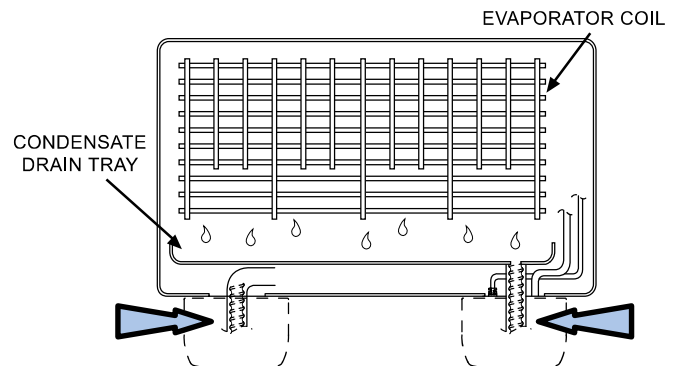
Hose Clamp

Anti-siphon (1)

(Fig. I) Product Image:



(Fig. II) Typical Pump Locations:



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Mini White is a registered trademark of Aspen Pumps Limited Company UK

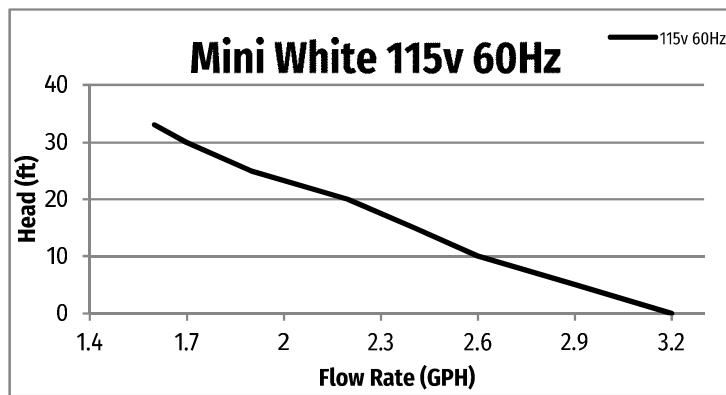
Mini White Univolt

Mini-Split Condensate Pump Kit 100-250v
83938 (DACA-CP4-1)

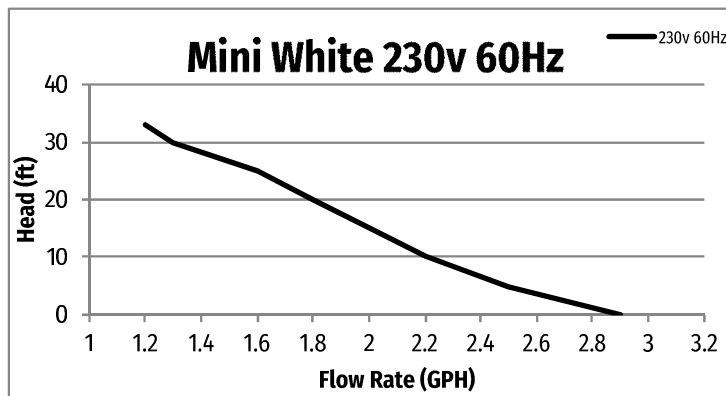


Aspen Pump BTU Calculator

Mini White 115v 60Hz		
Head	GPH	BTU
0	3.2	54600
5	2.9	49500
10	2.6	44350
15	2.4	42000
20	2.2	37500
25	1.9	33250
30	1.7	29250
33	1.6	27500



Mini White 230v 60Hz		
Head	GPH	BTU
0	2.9	49500
5	2.5	42600
10	2.2	37500
15	2	34000
20	1.8	30700
25	1.6	27500
30	1.3	22400
33	1.2	20600



Pump Selector & Wiring Diagrams Available at
<http://www.rectorseal.com//index.php/daikin/>

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Material list

Model	Quantity	Description
REYQ120XATJB	1	VRV-IV-X -B (208-230V)
REYQ168XATJB	1	VRV-IV-X -B (208-230V)
REYQ144XATJB	1	VRV-IV-X -B (208-230V)
BSF4Q54TVJ	1	Branch selector unit
BSF6Q54TVJ	1	Branch selector unit
BSF8Q54TVJ	1	Branch selector unit
FXAQ07PVJU	4	FXAQ - Wall Mounted Unit
FXAQ09PVJU	1	FXAQ - Wall Mounted Unit
FXAQ12PVJU	1	FXAQ - Wall Mounted Unit
FXAQ24PVJU	12	FXAQ - Wall Mounted Unit
EKEXV50-US	1	EEV4DOAS VALVE KIT
EKEXV400-US	1	EEV4DOAS VALVE KIT
KHRP25M73TUA	1	Refnet branch piping kit
KHRP26A22TA	5	Refnet branch piping kit
DCM601B71	1	intelligent Touch Manager (iTM)
BHFP26P100U	1	Condensing Unit Multi Connection Piping kit - VRV HR (obsolete)
BRC1E73	12	new Navigation Remote Controller
DCM014A51	1	ITM BACnet Server Gateway Option (Do not add with client or MS-TP, max 128 Device IDs)
EKEQDCBAV3-US	1	EEV4DOAS
KHFP26A100C	2	Branch Selector Closed Pipe Kit (obsolete)
KHRP26A250TA	1	Branch Selector 2-ports Joint Kit

Remarks

Note: Upon depletion of inventory of current REFNET models, order of current REFNET models will be substituted with the new upgraded -A models with no additional fee.

Piping	Liquid ft	Suction ft	Discharge ft	Total ft
1/4"	213.0	0.0	0.0	213.0
3/8"	470.0	0.0	0.0	470.0
1/2"	0.0	213.0	0.0	213.0
5/8"	0.0	461.0	9.0	470.0
3/4"	41.0	9.0	0.0	50.0
1 1/8"	0.0	0.0	41.0	41.0
1 3/8"	0.0	41.0	0.0	41.0



Indoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
FCU	Device model name
Tmp C	Indoor conditions in cooling
Rq TC	Required total cooling capacity
Rv TC	Revised total cooling capacity (asked from outdoor)
Max TC	Available total cooling capacity
Rq SC	Required sensible cooling capacity
Tevap	Evaporating temperature of indoor unit coil
Tdis C	Indoor unit discharge air temperature in cooling based on maximum capacities
Max SC	Available sensible cooling capacity
Tmp H	Indoor temperature in heating
Rq HC	Required heating capacity
Max HC	Available heating capacity
Tdis H	Indoor unit discharge air temperature in heating based on maximum capacities
Sound	Sound pressure level low and high
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
WxHxD	WidthxHeightxD
Weight	Weight of the device
Min coil	Minimum coil volume
Max coil	Maximum coil volume
Air Flow Rate	Air Flow Rate



CU-1-2 - REYQ120XATJB

Capacity data at conditions and connection ratio (90) as entered

Name	FCU	Cooling							
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC
		°F (DBT/WBT)	BTU/h	BTU/h	BTU/h	BTU/h	°F	°F	BTU/h
OAU-1-1 DX box 1	EKEXV400-US	n/a	106,960	n/a	168,901	n/a	42.8	n/a	n/a
OAU-1-1 RH box 1	EKEXV50-US	n/a	n/a	n/a	21,155	n/a	42.8	n/a	n/a
			106,960						

Name	FCU	Heating						
		Tmp H	Rq HC	Max HC	Tdis H	Min coil	Max coil	Air Flow Rate
		°F	BTU/h	BTU/h	°F	in ³	in ³	cfm
OAU-1-1 DX box 1	EKEXV400-US	n/a	n/a	187,668	n/a	253.00	576.00	n/a
OAU-1-1 RH box 1	EKEXV50-US	n/a	20,610	23,885	n/a	32.00	101.00	n/a
			20,610					

Name	FCU	Room	Sound	PS	MCA	MOP	WxHxD	Weight
			dBA				A	
OAU-1-1 - Control box 1	EKEQDCBAV3-US		-	208-230V 1ph	0.3		18.1 x 10.2 x 5.2	13.9
OAU-1-1 DX box 1	EKEXV400-US		-	12 1ph			8.5 x 15.8 x 3.1	6.4
OAU-1-1 RH box 1	EKEXV50-US		-	12 1ph			8.5 x 15.8 x 3.1	6.4

CU-1-1 - REYQ312XATJB = REYQ168XATJB + REYQ144XATJB

Capacity data at conditions and connection ratio (109) as entered

Name	FCU	Cooling							
		Tmp C	Rq TC	Rv TC	Max TC	Rq SC	Tevap	Tdis C	Max SC
		°F (DBT/WBT)	BTU/h	BTU/h	BTU/h	BTU/h	°F	°F	BTU/h
HP-1-1	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-2	FXAQ12PVJU	75.0/62.0	24,000	24,000	9,900	n/a	37.4	49.9	7,990
HP-1-14	FXAQ09PVJU	75.0/62.0	12,000	12,000	7,833	n/a	37.4	53.2	6,684
HP-1-15	FXAQ07PVJU	75.0/62.0	12,000	12,000	6,167	n/a	37.4	54.9	5,725
HP-1-17	FXAQ07PVJU	80.0/67.0	n/a	0	7,501	n/a	37.4	58.9	6,041
HP-1-3	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-4	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-5	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-6	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-7	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-8	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-9	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-10	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-12	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-13	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-11	FXAQ24PVJU	75.0/62.0	24,000	24,000	19,767	n/a	37.4	52.6	15,609
HP-1-16	FXAQ07PVJU	80.0/67.0	n/a	0	7,501	n/a	37.4	58.9	6,041
HP-1-18	FXAQ07PVJU	80.0/67.0	n/a	0	7,501	n/a	37.4	58.9	6,041
			336,000						



Name	FCU	Heating				Min coil	Max coil	Air Flow Rate
		Tmp H	Rq HC	Max HC	Tdis H			
		°F	BTU/h	BTU/h	°F			
HP-1-1	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-2	FXAQ12PVJU	68.0	n/a	14,000	112.0	n/a	n/a	290
HP-1-14	FXAQ09PVJU	68.0	n/a	11,100	104.1	n/a	n/a	280
HP-1-15	FXAQ07PVJU	68.0	n/a	8,700	98.5	n/a	n/a	260
HP-1-17	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	260
HP-1-3	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-4	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-5	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-6	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-7	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-8	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-9	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-10	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-12	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-13	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-11	FXAQ24PVJU	68.0	n/a	27,500	107.5	n/a	n/a	635
HP-1-16	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	260
HP-1-18	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	260
			n/a					

Name	FCU	Room	Sound dBA	PS	MCA	MOP	WxHxD inch	Weight lbs
					A			
HP-1-1	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-2	FXAQ12PVJU		31 - 38	208-230V 1ph	0.4	15A	31.3 x 11.4 x 9.3	26.5
HP-1-14	FXAQ09PVJU		31 - 37	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
HP-1-15	FXAQ07PVJU		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
HP-1-17	FXAQ07PVJU		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
HP-1-3	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-4	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-5	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-6	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-7	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-8	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-9	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-10	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-12	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-13	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-11	FXAQ24PVJU		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
HP-1-16	FXAQ07PVJU		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
HP-1-18	FXAQ07PVJU		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5



Outdoor unit details

Table of abbreviations

Abbreviation	Description
Name	Logical name of the device
Model	Device model name
▼	Optimized selection: Smaller outdoor model selected than standard proposed model
CR	Connection ratio
Tmp C	Outdoor conditions in cooling
WFR per module	Water flow per outdoor unit module
CC	Available cooling capacity
Rq CC	Required cooling capacity
PIC	Power input in cooling mode
InC	Water inlet temperature in cooling mode
OutC	Water outlet temperature in cooling mode
Tmp H	Outdoor conditions in heating (dry bulb temp. / RH)
HC	Available heating capacity (integrated heating capacity)
Rq HC	Required heating capacity
PIH	Power input in heating mode
InH	Water inlet temperature in heating mode
OutH	Water outlet temperature in heating mode
Piping	Largest distance from indoor unit to outdoor unit
Bse Refr	Standard factory refrigerant charge (16.4ft actual piping length) excluding extra refrigerant charge. For calculation of extra refrigerant charge refer to the databook
Ex Refr	Extra refrigerant charge
PS	Power supply (voltage and phases)
MCA	Minimum Circuit Amps
MOP	Maximum Overcurrent Protection
FLA	Fan Motor Input
RLA	Nominal Running Amps
WxHxD	WidthxHeightxDepth
Weight	Weight of the device
EER	EER value at nominal condition
EER2	EER2 value at nominal condition
IEER	IEER value at nominal condition
COP47	COP value at nominal condition and at ambient temperature of 47°F
COP17	COP value at nominal condition and at ambient temperature of 17°F



Outdoor details

Name	Model	CR	Cooling			Heating			Piping ft
			Tmp C	CC	Rq CC	Tmp H	HC	Rq HC	
			°F	BTU/h	BTU/h	°F (DBT/WBT)	BTU/h	BTU/h	
CU-1-2	REYQ120XATJB	90.0	95.0	120,168	106,960	32.0/30.7	109,901	0	24.6
CU-1-1	REYQ312XATJB ▼	108.8	95.0	302,082	283,604	32.0/30.7	287,945	389,900	166.3

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD inch	Weight lbs
			A	A	A	A		
CU-1-2	REYQ120XATJB	208V - 230V 3ph	43.0	50.0	28.2		48.9 x 66.7 x 30.2	727.0
BS-1-3	BSF4Q54TVJ	208-230V 1ph	0.4	15.0			13.7 x 9.5 x 23.7	48.5
CU-1-1	REYQ312XATJB	208V - 230V 3ph						
A	- REYQ168XATJB		61.9	70.0	49.0		48.9 x 66.7 x 30.2	793.0
B	- REYQ144XATJB		58.3	70.0	42.6		48.9 x 66.7 x 30.2	727.0
BS-1-1	BSF6Q54TVJ	208-230V 1ph	0.6	15.0			23.3 x 9.5 x 23.7	72.8
BS-1-2	BSF8Q54TVJ	208-230V 1ph	0.8	15.0			23.3 x 9.5 x 23.7	81.6

Name	Efficiency Metrics - Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-1-2	12.3		22.6	3.48	2.28	22.2				
CU-1-1	9.9		18	3.2	2.05	20.7				

Name	Efficiency Metrics - Non Ducted									
	EER	EER2	IEER	COP47	COP17	SCHE	SEER	SEER2	HSPF	HSPF2
CU-1-2	13.2		25.5	3.81	2.54	26				
CU-1-1	10.1		20.4	3.56	2.09	24.3				



Sound Data

Name	Model	Sound Power		Sound Pressure	
		Cooling dBA	Heating dBA	Cooling dBA	Heating dBA
		CU-1-2	REYQ120XATJB	-	-
CU-1-1	REYQ312XATJB	-	-	68	-

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
CU-1-2	REYQ120XATJB	R410A	2087.5	25.79	unknown	unknown	24.42
CU-1-1	REYQ312XATJB	R410A	2087.5	51.59	52.67	104.26	98.72

The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.

CU-1-2 - REYQ120XATJB

Model	Quantity	Description
REYQ120XATJB	1	VRV-IV-X -B (208-230V)
BSF4Q54TVJ	1	Branch selector unit
EKEXV50-US	1	EEV4DOAS VALVE KIT
EKEXV400-US	1	EEV4DOAS VALVE KIT
EKEQDCBAV3-US	1	EEV4DOAS
KHFP26A100C	1	Branch Selector Closed Pipe Kit (obsolete)
KHRP26A250TA	1	Branch Selector 2-ports Joint Kit

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
R410A	2087.5	25.79	unknown	unknown	24.42



The system(s) contain fluorinated greenhouse gases.

When extra refrigerant charge requirements are not calculated, TCO2 equivalent is calculated only considering the base refrigerant charge. Depending on the field pipe length extra refrigerant needs to be added which will increase the TCO2 equivalent.

CU-1-1 - REYQ312XATJB = REYQ168XATJB + REYQ144XATJB

Model	Quantity	Description
REYQ168XATJB	1	VRV-IV-X -B (208-230V)
REYQ144XATJB	1	VRV-IV-X -B (208-230V)
BSF6Q54TVJ	1	Branch selector unit
BSF8Q54TVJ	1	Branch selector unit
FXAQ07PVJU	4	FXAQ - Wall Mounted Unit
FXAQ09PVJU	1	FXAQ - Wall Mounted Unit
FXAQ12PVJU	1	FXAQ - Wall Mounted Unit
FXAQ24PVJU	12	FXAQ - Wall Mounted Unit
KHRP25M73TUA	1	Refnet branch piping kit
KHRP26A22TA	5	Refnet branch piping kit
BHFP26P100U	1	Condensing Unit Multi Connection Piping kit - VRV HR (obsolete)
BRC1E73	6	new Navigation Remote Controller
BRC1H71W	6	Madoka Remote Controller
KHFP26A100C	1	Branch Selector Closed Pipe Kit (obsolete)

Piping	Liquid ft	Suction ft	Discharge ft	Total ft
1/4"	213.0	0.0	0.0	213.0
3/8"	470.0	0.0	0.0	470.0
1/2"	0.0	213.0	0.0	213.0
5/8"	0.0	461.0	9.0	470.0
3/4"	41.0	9.0	0.0	50.0
1 1/8"	0.0	0.0	41.0	41.0
1 3/8"	0.0	41.0	0.0	41.0

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	Total refrigerant charge lbs	Total CO2 equivalent tonnes
R410A	2087.5	51.59	52.67*)	104.26	98.72

The system(s) contain fluorinated greenhouse gases.

*) Extra refrigerant charge = 4.0786 (A) + 18.5188 (B) + 1.04 × [41.0 ft (ø3/4 ") × 0.571 + 470.0 ft (ø3/8 ") × 0.1301 + 213.0 ft (ø1/4 ") × 0.0485] × 0.3048 = 52.7lbs

The extra charge is calculated based on the pipe lengths specified. This may differ from the actual pipe lengths on site and therefore also from the real extra charge and the real TCO2 equivalent.



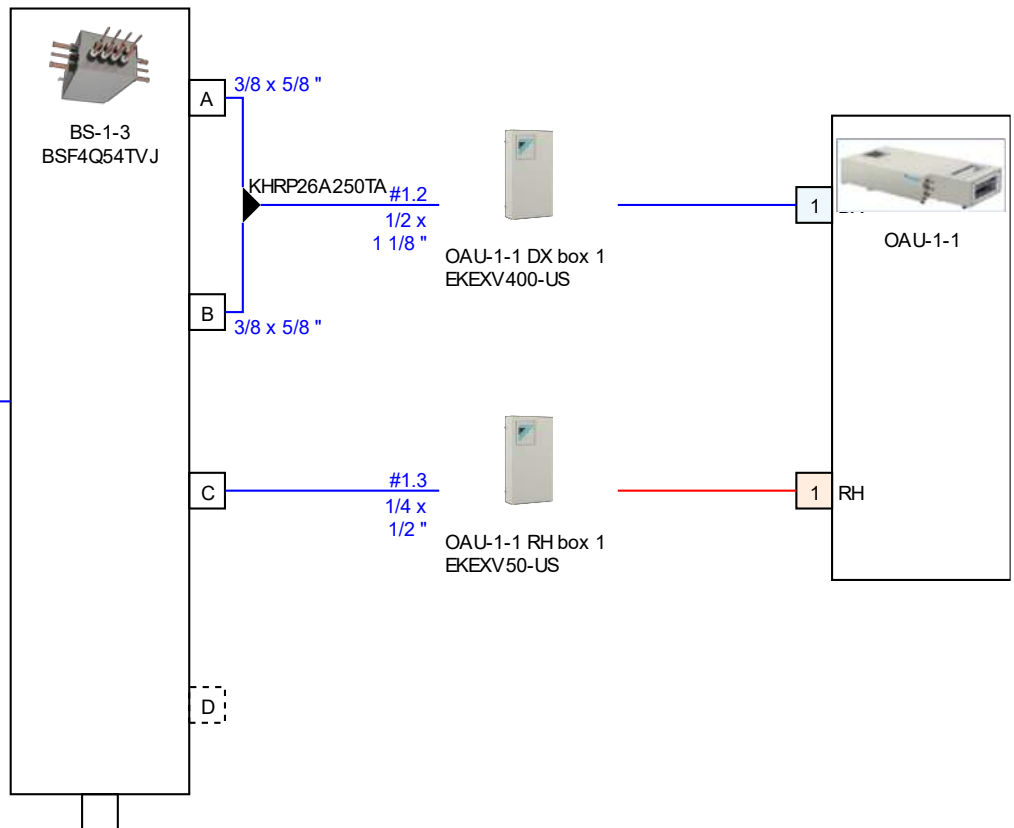
Remarks

Chosen outdoor unit size differs from default proposed size. Be aware that this might lead to reduced comfort levels, increased noise levels, wear and tear. In case of doubt, contact your sales representative.

Piping diagrams

Piping CU-1-2

CU-1-2
REYQ120XATJB

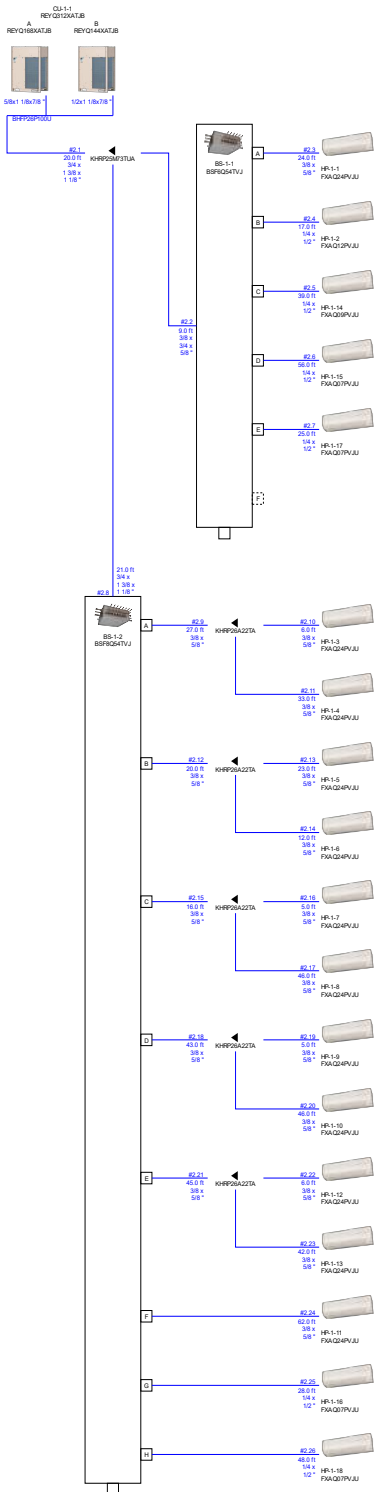


Piping

Warning: The pipe diameter values are purely indicative. Depending on the required pipe lengths, a different pipe diameter might be required.

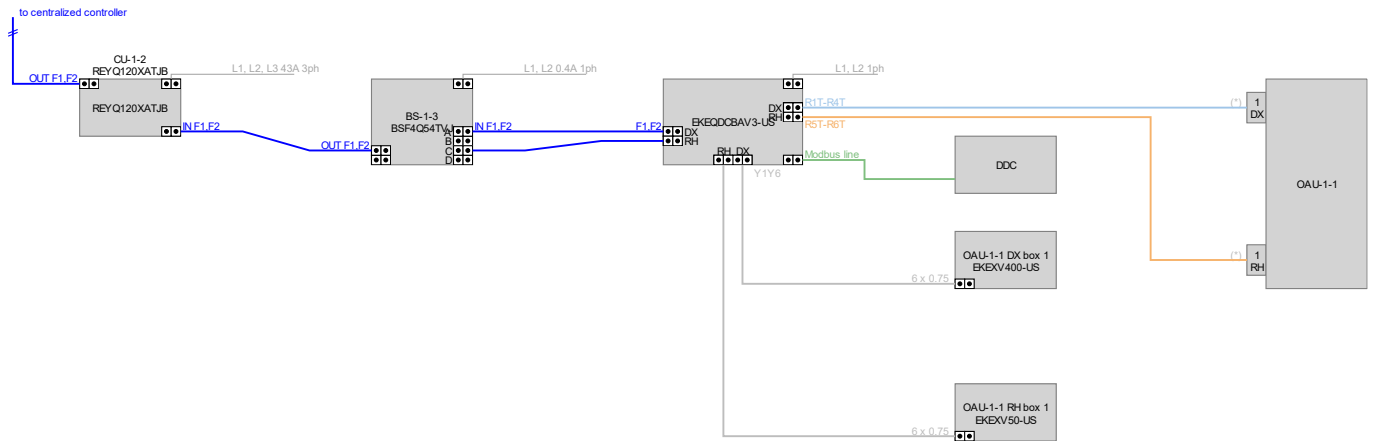


Piping CU-1-1



Wiring diagrams

Wiring CU-1-2

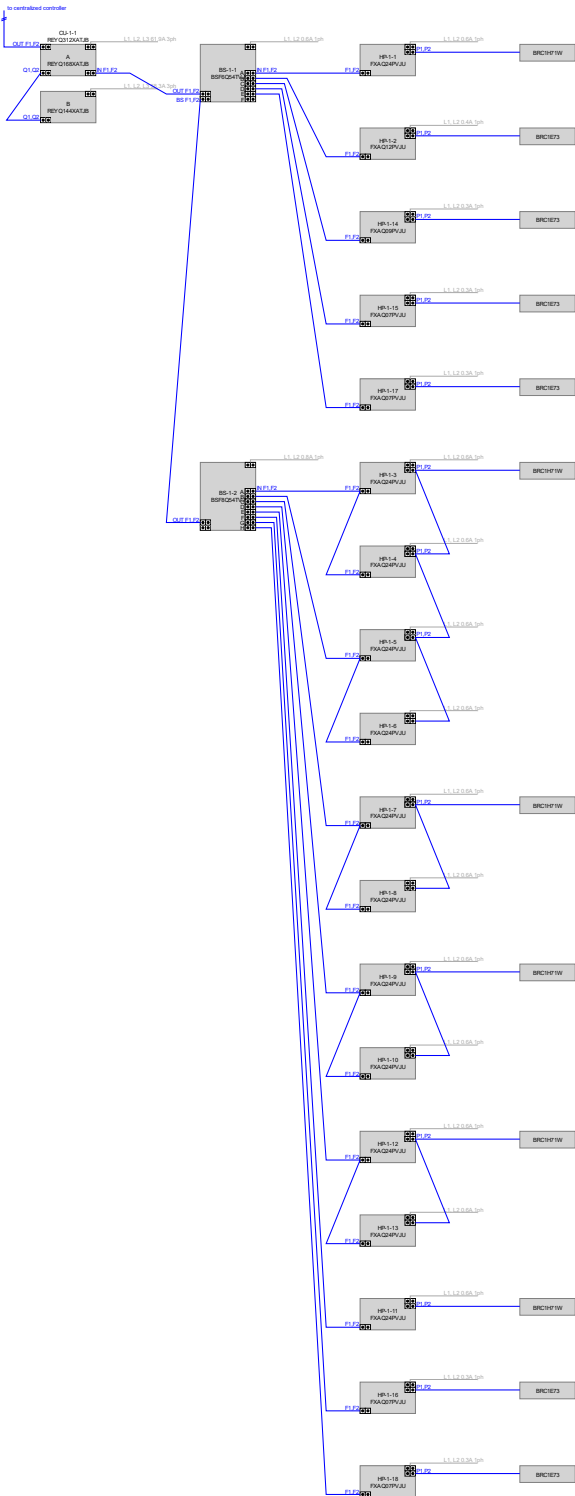


Remarks

F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information

Note:

Wiring CU-1-1



Remarks

P1P2 = AWG 18-2 is required - however always refer to local code for further information.

F1F2 IN/OUT = AWG 18-2 is required - however always refer to local code for further information

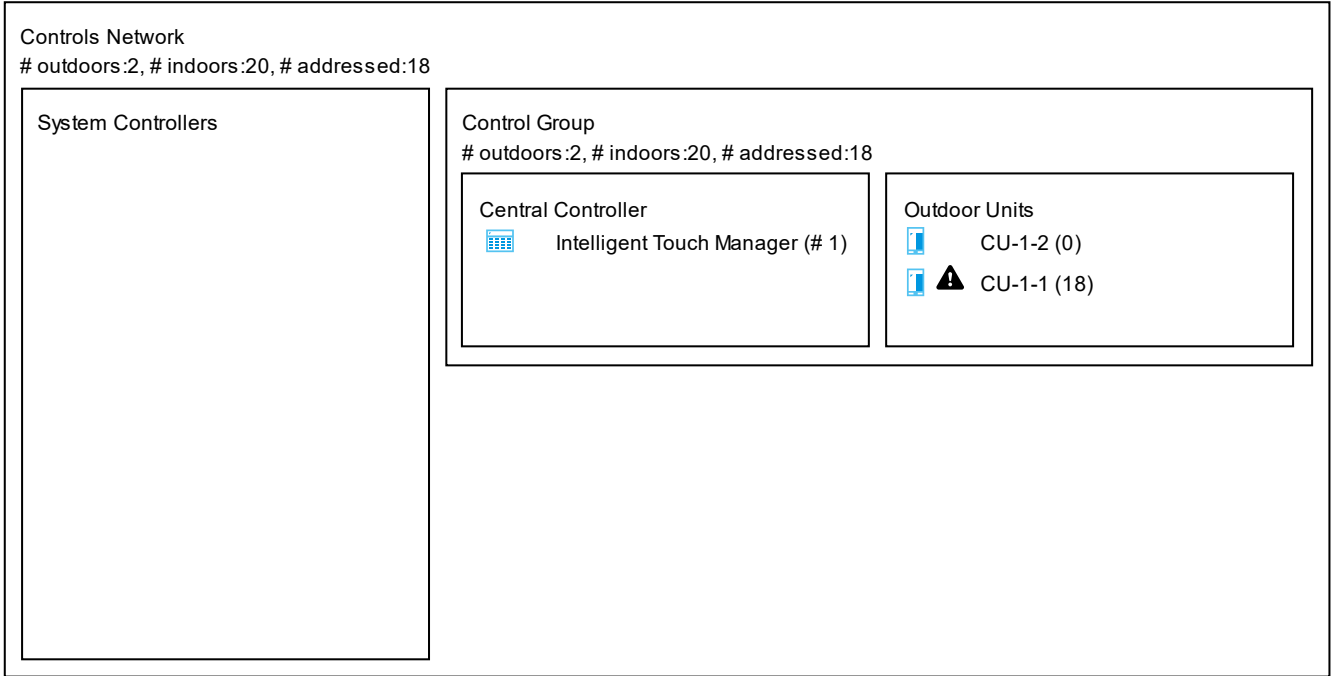
Note:





Centralized controllers

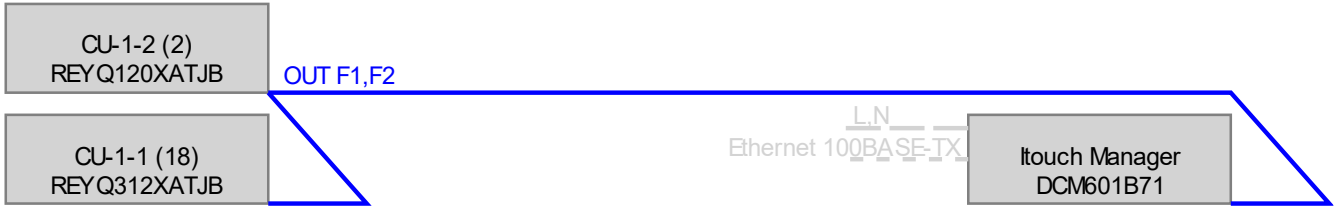
Concept





Controller wiring diagrams

Control Group





Submittal Data Sheet

1-Ton Wall Mounted Daikin OTERRA Heat Pump System
FTX12BXVJURX12BXVJU

TAG : AC 2-1

FEATURES

- Daikin Swing Compressor
- Indoor Quiet Operation
- Included Handheld Remote
- Titanium Apatite Air-Purifying Filter
- Anti-corrosion Treatment of Outdoor Heat Exchanger

BENEFITS

- Precharged Line set - 33 ft
- Cooling Operation Range - 50-115F
- Heating Operation Range - 5-65F
- 12 Year Parts and Compressor Registered Residential Warranty
- 5 year Parts and Compressor Commercial Warranty

INDOOR UNIT



OUTDOOR UNIT





Submittal Data Sheet

1-Ton Wall Mounted Daikin OTERRA Heat Pump System

FTX12BXVJURX12BXVJU

SYSTEM PERFORMANCE

Indoor Unit Model No.	FTX12BXVJU	Indoor Unit Name:	1 Ton, Heat Pump, Wall mounted IDU Daikin OTERRA
Outdoor Unit Model No.	RX12BXVJU	Outdoor Unit Name:	1 Ton Heatpump, Ductless, ODU Daikin OTERRA
Rated Cooling Capacity (Btu/hr):	10,900	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	13,300 / 4,400	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):	3.200	Heating Input Power (kW):	3.96
SEER2 (Non-Ducted/Ducted):	20.00 /	HSPF2 (Non-Ducted/Ducted):	10.0 /
EER2 (Non-Ducted/Ducted):	12.50 /	Heating COP (Non-Ducted/Ducted):	3.8 /
Rated Heating Capacity (Btu/hr):	13,500	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Max/Min Heating Capacity (Btu/hr):	16,400 / 4,400		

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	50 - 115
Holding Refrigerant Charge (lbs):	2.09	Heating Operation Range (°F WB):	5 - 65
Additional Charge (lb/ft):	0.21	Max. Pipe Length (Vertical) (ft):	49
Pre-charge Piping (Length) (ft):	33	Cooling Range w/Baffle (°F DB):	-4 - 115
Max. Pipe Length (Total) (ft):	66		
Max Height Separation (Ind to Ind ft):	0		



Submittal Data Sheet

1-Ton Wall Mounted Daikin OTERRA Heat Pump System

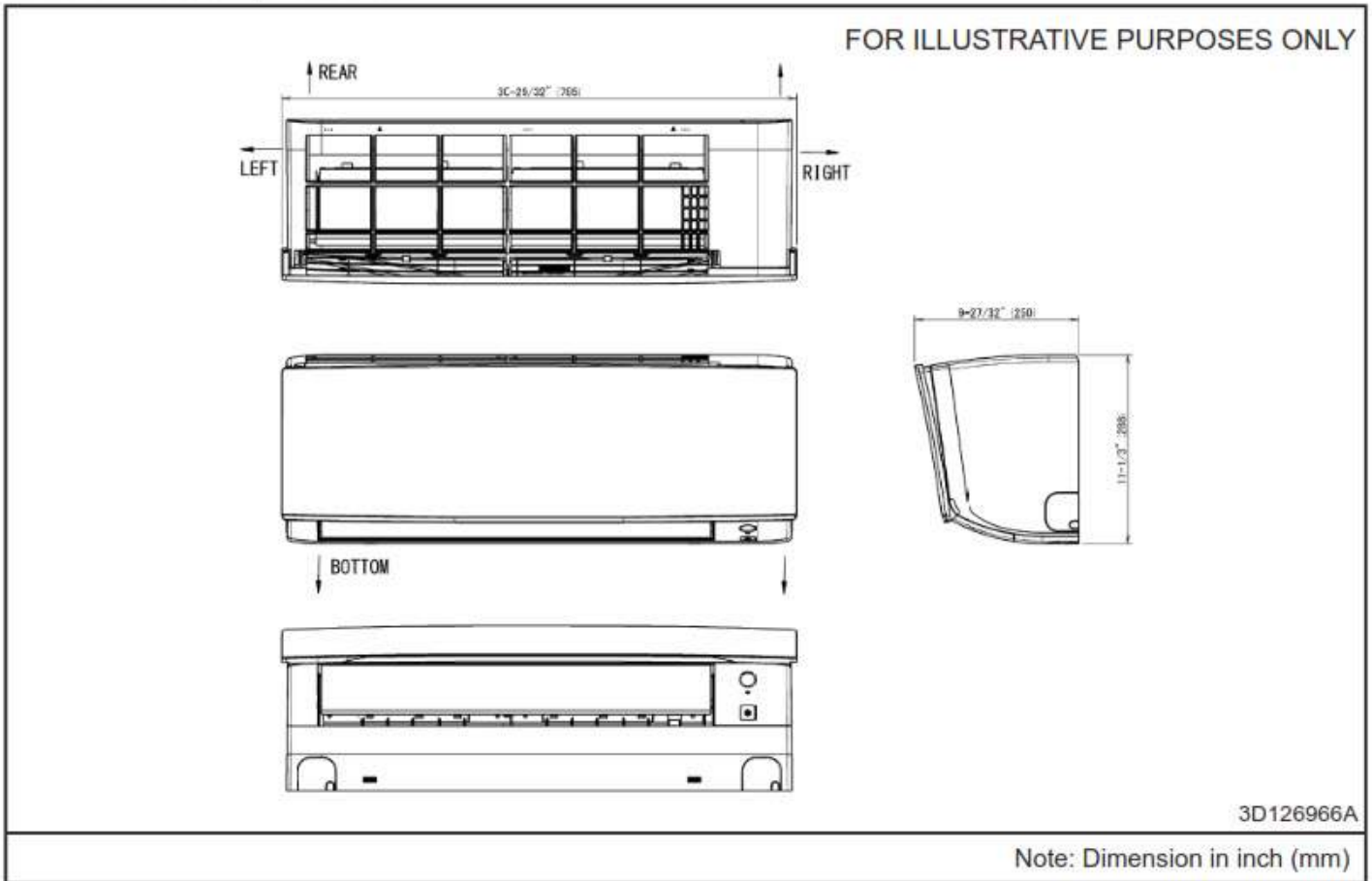
FTX12BXVJURX12BXVJU

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (HH/HM/L/SL) (CFM):	473/436/316/247/132
Power Supply Connections:	L1, L2, L3, Ground	Moisture Removal (Gal/hr):	0.2
Min. Circuit Amps MCA (A):	12.4	Gas Pipe Connection (inch):	3/8
Max Overcurrent Protection (MOP) (A):	15	Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-1/3 x 30-29/32 x 9-27/32	Condensate Connection (inch):	5/8
Net Weight (lb):	21.4	Sound Pressure (H/M/L/SL) (dBA):	46/38/32/19
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT

Model : FTK09/12B, FTX09/12B





Submittal Data Sheet

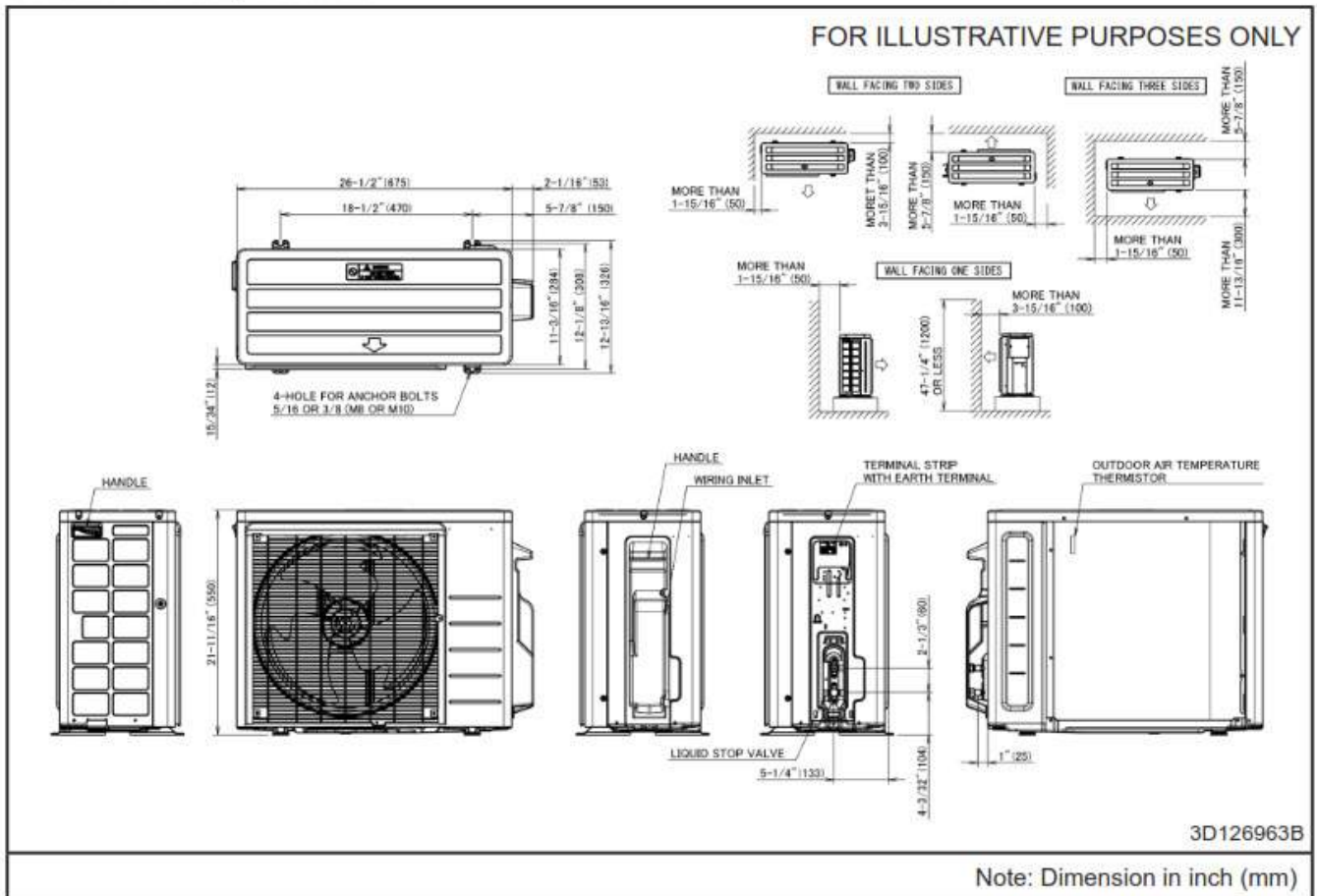
1-Ton Wall Mounted Daikin OTERRA Heat Pump System
FTX12BXVJURX12BXVJU

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3, Ground	Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	12.4	Airflow Rate (H) (CFM):	1051
Max Overcurrent Protection (MOP) (A):	15	Gas Pipe Connection (inch):	3/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):		Sound Pressure (H) (dBA):	49
Dimensions (HxWxD) (in):	21-11/16 x 26-1/2 x 11-3/16	Sound Power Level (dBA):	
Net Weight (lb):	62		

DIMENSIONAL DRAWING - OUTDOOR UNIT

Model : RK09/12B, RX09/12B





Submittal Data Sheet

1-Ton Wall Mounted Daikin OTERRA Heat Pump System

FTX12BXVJURX12BXVJU

INDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
-------------	-------------	----------

AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)	No
AZAI6WSPDKC	DKN Plus Interface	No
BRC51D61	Wired Remote Controller Kit	No
DACA-CP1-1	Mini Aqua Condensate Pump	No
DACA-CP4-1	MINI WHITE PUMP KIT 100-250V	No
DTST-LTE-LA-A	Daikin One Lite (with Translation Adaptor for S21 only)	No
DTST-ONE-ADA-A	Daikin One+ Smart Thermostat for VRV, SkyAir, Single- and Multi-Zone System	No

OUTDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
-------------	-------------	----------

DACA-WB-1	Powder-Coated Wall-Mounted Bracket	No
KEH067A41E	Daikin BMS DrainPan Heater Small RX09,12 and RXN09,12	No
KKG067A41	Back protection wire net (09 & 12)	No
KPW937F4	Air direction adjustment grille (09 & 12)	No

PRODUCT DATA SHEET

GPS-iRIB[®]-18/36

Flexible Needlepoint Bipolar Air Ionization System

PRODUCT DESCRIPTION

The GPS-iRIB 18-inch and 36-inch are made from a flexible heat and cold resistant, inert polyimide material containing a circuit with special carbon fiber ionization needles soldered into the circuit traces.



STANDARD FEATURES

Comes in 18" or 36" fixed lengths, with operation status LED, integral Building Automation System (BAS) alarm contacts, hook and loop tape for easy installation, carbon fiber brush emitters and a wide voltage input range of 110VAC to 240VAC.

SPECIFICATIONS

Input Voltage	110VAC to 240VAC	Humidity Range	0 - 100% RH
Power Consumption	5 Watts	Power Unit Dimensions	1"H x 1.75"W x 3.75"L
Frequency	50/60Hz	Ionizer Strip Dimensions (iRIB-18)	1.5"W x 18"L x 0.05"H
Output Voltage	2KV	Ionizer Strip Dimensions (iRIB-36)	1.5"W x 36"L x 0.05"H
Total Ion Output	>35M ions/cc per foot	Combined Weight (iRIB-18)	0.5 lbs
Airflow Capacity	0 - 3,200 CFM or 8 tons	Combined Weight (iRIB-36)	0.54 lbs
Alarm Contact Rating	250VAC / 1A, N.O. "dry" contact	Electrical Listings	UL cUL
Temperature Range	-40°F to 140°F	Compliance & Certifications	UL 867, UL 2998, UL 2043, CARB, CE, FCC part 18



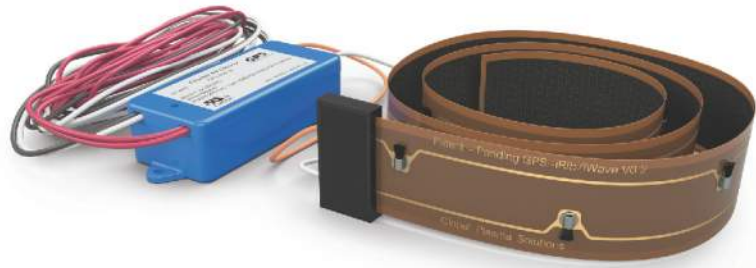
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GPS-040-13-R21-iRIB DS

Installation, Operation & Maintenance Manual

GPS-iRIB[®]-18 & GPS-iRIB[®]-36



NOTICE: This product is to be used only as directed. Read entire manual before use. Do not use unless properly installed.



www.gpsair.com

For technical product queries, please reach out to techsupport@gpsair.com

Thank you for purchasing a GPS-iRIB® air ionization system from GPS Air. The GPS-iRIB is a highly versatile device designed to be installed on the coiling coil of ductless systems or PTACs. The units can be installed on systems where there may not be enough room between the filter and the coil for traditional GPS products. The units come with adhesive-backed hook and loop tape for ease of installation.

As part of the installation process, a Startup Document should be completed. For the latest version of the document, visit our website or utilize the QR code.



Ductless Mini-Split and PTAC Mounting and Wiring Instruction

1. Turn off the power to the air handling unit (AHU). Follow all local and national electrical and building codes.
2. Remove the filter screens and the cover to expose the coil surface and the power box.
3. Determine where you want to mount the ionization strip on the AHU.
4. Peel off the loop section from the GPS-iRIB and then peel off the paper layer to expose the adhesive.
5. Carefully attached the adhesive backed loop on the AHU at the desired location. Some mini split systems come with a plastic strip along the top of the coil. If so, mount the GPS-iRIB to the plastic strip. Otherwise mount the GPS-iRIB on the finned surface. See [FIGURE 1](#).



CAUTION: *Keep the emitter tips away from loose wires or any grounded parts.*



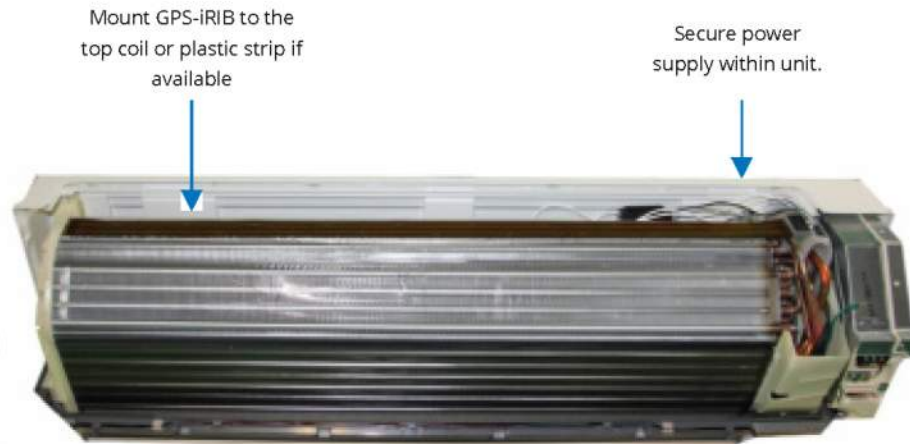
CAUTION: MAKE SURE POWER IS DISCONNECTED TO THE HVAC EQUIPMENT BEFORE INSTALLATION

6. Each AHU brand will have different space constraints for the power supply. Find an appropriate space to mount the power supply using the included hook and loop tape. Press the power supply firmly to the mounting location. See [FIGURE 1](#).
7. Run the wires to the electrical compartment. Connect the black wire to 100-240VAC and the white wire to neutral. For 208-240VAC installations, connect the white wire to the other hot leg, depending on the power supplied.
8. Trim the wires to length and connect to the appropriate power terminals, normally L1 and L2. Secure wires properly with wire ties or other NEC approved methods.



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Figure 1



Operation

1. Turn on power to the AHU.
2. The ion device will be powered when power is applied to the AHU. Note: the ion device is designed to remain energized 24/7 and does not have to cycle with the fan.
3. Once unit is energized, the integral LED on the power pack will illuminate, indicating the unit is active.

BAS Alarm Operation

1. The purple wires connect to the integral alarm relay. When the unit is powered and there are no faults, the alarm contacts will be closed. When there is a fault, the contact will open.

Maintenance

1. Remove power from the AHU and remove the required parts to access the iRIB. Confirm the iRIB power supply LED is not illuminated. It is good practice to ensure all voltage is removed from the iRIB. Take a screwdriver with insulated handle and touch a carbon fiber brush brass connector on one side to another on the opposite side. This will discharge any remaining voltage that could cause a potential shock hazard during maintenance.
2. Use a wet wipe or damp cloth to clean the iRIB. A soft bristle brush, like a toothbrush, can also be used to clean debris from ion emitters. Do not expose the iRIB to corrosive cleaners.



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Note:

In order to prevent damage to the emitter tape, the should note be folded over onto itself.

An iRIB-18 should be fitted to a coil/substrate that is continuous and at least 18" long. Where the coil/substrate exceeds 18", the polyimide tape emitter portion of the iRIB should be centralized on the substrate it is to be attached to.

An iRIB-36 should be fitted to a coil/substrate that is continuous and at least 36" long. Where the coil/substrate exceeds 36", the polyimide tape emitter portion of the iRIB should be centralized on the substrate it is to be attached to.

Product Registration

By registering your order, the standard limited warranty on eligible products from your purchase is automatically extended to 3 years, at no additional cost.

Register your products at www.gpsair.com/product-registration or scan the QR code.



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NBV-S Full Port Ball Valves with Schrader

TECHNICAL SPECIFICATIONS SUBMITTAL FORM

Job Name:	Submittal Date:	Wholesaler:
Job Location:	Engineer/Architect:	Contractor:

Product Use:

Full port ball valve with a Schrader service port for use in refrigeration, commercial HVAC, VRV, VRF, multi-mini split, and sub-critical applications.

Design and Features:

- Full port valves with 900 PSIG working pressure on sizes up to 7/8"
- Compatible with HCFC, HFC, HC, and HFO refrigerants and oils
- Twice sealing on the valve stem using PTFE seal technology
- Rupture-proof encapsulated stem and bi-directional flow
- Two-piece stem cap
- One piece brass oven-brazed body
- 100% leak tested
- Stamped with serial number and packaged in poly-bag
- Two-year warranty

Operating Specifications:

- Temperature: -40° to 302°F (-40°C to 150°C)
- Burst Pressure: 5 times the working pressure
- Leak Rate: <0.02g/year
- Life Expectancy: >50,000 cycles

Certifications and Approvals:

- UL/cUL 207
- CRN recognized
- CE approved
- RoHS compliant

NBV-S Pressure Ratings and Weight

PART #	DESCRIPTION	MAX PRESSURE		WEIGHT	
		PSI	BAR	LB	KG
NBV02S	1/4" Full Port Ball Valve w/ Schrader	900	62	0.463	0.210
NBV03S	3/8" Full Port Ball Valve w/ Schrader	900	62	0.481	0.218
NBV04S	1/2" Full Port Ball Valve w/ Schrader	900	62	0.481	0.218
NBV05S	5/8" Full Port Ball Valve w/ Schrader	900	62	0.661	0.300
NBV06S	3/4" Full Port Ball Valve w/ Schrader	900	62	1.113	0.505
NBV07S	7/8" Full Port Ball Valve w/ Schrader	900	63	1.202	0.545
NBV09S	1-1/8" Full Port Ball Valve w/ Schrader	700	48	1.940	0.880
NBV11S	1-3/8" Full Port Ball Valve w/ Schrader	700	48	3.109	1.410
NBV13S	1-5/8" Full Port Ball Valve w/ Schrader	700	48	5.093	2.310
NBV17S	2-1/8" Full Port Ball Valve w/ Schrader	700	48	8.730	3.960
NBV21S	2-5/8" Full Port Ball Valve w/ Schrader	650	45	14.330	6.500
NBV25S	3-1/8" Full Port Ball Valve w/ Schrader	650	45	20.977	9.515
NBV33S	4-1/8" Full Port Ball Valve w/ Schrader	450	31	36.597	16.600



NBV-S Materials

PART	MATERIAL
STUBOUTS	Copper
SEALS & SEATS	Teflon (PTFE)
CAP	Brass
STEM	Stainless Steel
LOCK NUT	Brass, Stainless Steel
BODY	Brass
SCHRADER CAP	Brass
BALL	Stainless Steel



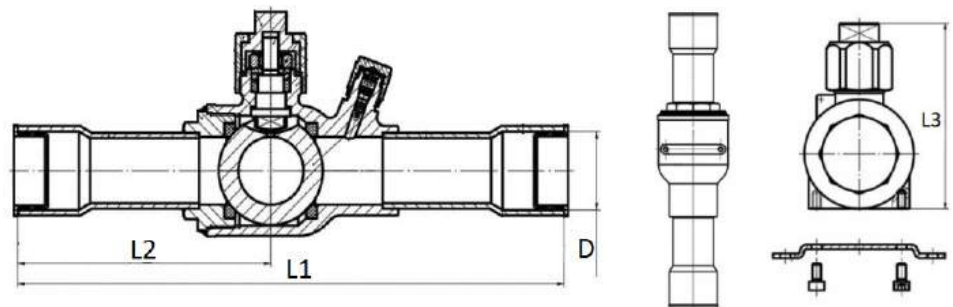
NBV-S Full Port Ball Valves with Schrader

NBV-S Dimensions

MODEL	SIZE	MAX WORKING PRESSURE		D		L1		L2		L3		WEIGHT	
		PSI	BAR	MM	IN	MM	IN	MM	IN	MM	IN	LB	KG
NBV02S	1/4"	900	62	0.25	6.40	4.96	126.00	2.09	53.00	2.02	51.30	0.463	0.210
NBV03S	3/8"	900	62	0.38	9.58	4.96	126.00	2.09	53.00	2.02	51.30	0.481	0.218
NBV04S	1/2"	900	62	0.50	12.75	5.02	127.50	2.13	54.00	2.02	51.30	0.481	0.218
NBV05S	5/8"	900	62	0.63	15.93	5.91	150.00	2.57	65.30	2.30	58.40	0.661	0.300
NBV06S	3/4"	900	62	0.75	19.10	6.46	164.00	2.91	74.00	2.60	66.00	1.113	0.505
NBV07S	7/8"	900	62	0.88	22.28	7.46	189.50	3.39	86.00	2.60	66.00	1.202	0.545
NBV09S	1-1/8"	700	48	1.13	28.65	8.23	209.00	3.82	97.00	3.27	83.00	1.940	0.880
NBV11S	1-3/8"	700	48	1.38	35.00	9.00	228.60	4.29	109.00	3.88	98.50	3.109	1.410
NBV13S	1-5/8"	700	48	1.63	41.35	9.50	241.30	4.53	115.00	4.43	112.50	5.093	2.310
NBV17S	2-1/8"	700	48	2.13	54.05	10.50	266.70	5.16	131.00	5.18	131.60	8.730	3.960
NBV21S	2-5/8"	650	45	2.63	66.75	14.96	380.00	7.24	184.00	6.02	153.00	14.330	6.500
NBV25S	3-1/8"	650	45	3.13	79.45	16.14	410.00	7.80	198.00	6.83	173.40	20.977	9.515
NBV33S	4-1/8"	450	31	4.13	104.85	17.72	450.00	8.70	221.00	8.18	207.80	36.597	16.600

Part Selection

<input type="checkbox"/>	NBV02S	1/4" Full Port Ball Valve
<input type="checkbox"/>	NBV03S	3/8" Full Port Ball Valve
<input type="checkbox"/>	NBV04S	1/2" Full Port Ball Valve
<input type="checkbox"/>	NBV05S	5/8" Full Port Ball Valve
<input type="checkbox"/>	NBV06S	3/4" Full Port Ball Valve
<input type="checkbox"/>	NBV07S	7/8" Full Port Ball Valve
<input type="checkbox"/>	NBV09S	1-1/8" Full Port Ball Valve
<input type="checkbox"/>	NBV11S	1-3/8" Full Port Ball Valve
<input type="checkbox"/>	NBV13S	1-5/8" Full Port Ball Valve
<input type="checkbox"/>	NBV17S	2-1/8" Full Port Ball Valve
<input type="checkbox"/>	NBV21S	2-5/8" Full Port Ball Valve
<input type="checkbox"/>	NBV25S	3-1/8" Full Port Ball Valve
<input type="checkbox"/>	NBV33S	4-1/8" Full Port Ball Valve



The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of a product.

All installations must completely comply with all NDL Industries warnings and instructions, national state and local codes and all applicable ANSI standards.

NDL Industries product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Customer

Service. NDL Industries reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on NDL products previously or subsequently sold.



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