Received
02/11/2021
BARILE GALLAGHER & ASSOCIATES

SUBMITTAL COVER SHEET

Contractor: Piazza Inc

Address: 3 W. Steven Avenue Hawthorne, NY **Telephone:** (914) 741 4435

Owner:

Name of Project: Bedford Hills Community House

TYPE OF SUBMITTAL:

- ☐ Shop Drawings
- ☒ Technical Data
- ☐ Test Report
- ☐ Schedule
- ☐ Certificate
- ☐ Warranty
- ☐ Physical Sample
- ☐ Color Sample
- ☐ _____

Submission #: 1st, 2nd, (3rd), 4th (circle one)

Description:

Product Identification: 230265 - 001r02&230267-001r02 - Revised Indoors & Out Doors Variable Refrigerant Flow Product Data

Manufacturer: DAIKIN

Subcontractor/Supplier: J&M

DOCUMENT REFERENCES: (Must be fully filled out)

Spec Section No.: _____ Drawing No(s): _____

Paragraph: _____ Rm. Or Det. No(s): _____

Contractor Remarks:

Contractor Submittal Review Stamp

THE ATTACHED MATERIAL HAS BEEN REVIEWED BY THE UNDERSIGNED AND IS BELIEVED TO COMPLY WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE UNDERSIGNED UNDERSTANDS VERIFICATION OF FIELD DIMENSIONS, AND COORDINATION WITH OTHER TRADES, REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.

DATE: 02/10/2021 BY (SIGN): Piazza Inc

Consultant use below this line:

- ☐ NO EXCEPTIONS TAKEN
- ☑ MAKE CORRECTIONS NOTED
- ☐ REVISE AND RESUBMIT
- ☐ REJECTED

Checking is only for conformance with the design intent for the project and compliance with the information given in the contract documents. Contractor is responsible for the dimensions, correct information indicated, coordination of the work with all trades, and all other requirements of the contract documents. This shop drawing is the product and the property of the contractor and is not a part of the contract documents.

BARILE GALLAGHER & ASSOCIATES

DATE: 2/12/2021 BY: NP

Architect Submittal Review Stamp

- ☐ NO EXCEPTIONS
- ☐ REJECTED
- ☐ EXAMINED
- ☒ MAKE CORRECTIONS NOTED
- ☐ REVISE AND RESUBMIT
- ☐ SUBMIT SPECIFIED ITEM

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS & SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED & CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES & THE SATISFACTORY PERFORMANCE OF HIS WORK

KAEYER, GARMENT + DAVIDSON ARCHITECTS, P.C.

DATE 2/12/21 BY BMANGAN

- COORDINATE LOCATIONS OF INDOOR UNITS WITH RECENTLY SUBMITTED SKETCHES AND FIELD COORDINATION/DISCUSSION
- COORDINATE WITH EXTERIOR CONC. PADS

J & M HEATING AND AIR CONDITIONING, INC.
395 Adams St., Bedford Hills, NY 10507

Tele: 914-632-4433
Fax: 914-632-4772

SUBMITTAL COVERSHEET

No: 2598-04 R-2
Date: 02/05/2021

ARCHITECT/ENGINEER:

Barile Gallagher Associates
39 Marble Ave.
Pleasantville, NY 10570

CONSTRUCTION MANAGER:

Piazza
3 W Stevens Ave,
Hawthorne, NY 10532

Contractor: J&M Heating and Air Conditioning, Inc.
Address: 395 Adams St., Bedford Hills, NY 10507

Contact: Lou Ruperto
Telephone: 914-632-4433
Fax: 914-632-4772
Email: lruperto@jmhvac.com

Project: 2598 Bedford Hills Community House

Type of Submittal:

Re-submittal: ☑ YES ☐ NO

☐ Shop Drawings ☑ Product Data ☐ Schedule ☐ Sample ☐ Color Sample
☐ Test Report ☐ Certificate ☐ Warranty ☐ Other

SUBMITTAL DESCRIPTION:

Product Name: VRV System
Manufacturer: Daikin
Subcontractor / Supplier: Daikin

References:

Spec Section No: 230265, 267 **Drawing No(s):** all
Paragraph: **Rm. or Detail No(s):**

Architect's Review Stamp	Contractor Review Stamp

Remarks:

Provide vibration isolators, disconnect switches, and phase protection as noted on drawings.

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10 Exchange Place, 21st floor
Jersey City, N.J. 07302
Office: 201.395.3750
Fax: 201.395.3777

Submittal for Approval
Bedford Hills Community House
Rev 03

Project Location: 74 Main Street
Bedford Hills, NY 10507

Engineer: Barile Gallagher & Associates
39 Marble Ave.
Pleasantville, NY 10570

Mechanical Contractor: J&M Heating and AC
395 Adams Street
Bedford Hills, NY 10507

Submitted: 2/09/2021

Submitted By
Scott Shufflebotham – Sales Engineer
Scott.Shufflebotham@daikinapplied.com
James Locascio – Project Engineer
James.Locascio@daikinapplied.com

GENERAL VRV SYSTEM:

1. Submittal based on plans dated **9.1.2020 - With Revisions Noted Below.**
2. 208-230v/60/1 – all VRV indoor units
3. All VRV- IV-X condenser units are 3ph power supplies, voltage requirements determined by model number
4. Programmable controllers provided for indoor units as detailed below
5. All control wiring to be a minimum of 18 AWG, 2-wire, stranded, non-shielded, however field conditions may dictate that a larger gauge and shielded wire be used. Please check with your Daikin Sales Engineer for clarification and your specific needs before commencing your installation.
6. Installing contractor to provide shop drawings of refrigerant piping lengths and routing prior to installation of piping and release of all Daikin equipment.
    a. **Refrigerant pipe sizes may change due to lengths.**
7. Installing contractor to follow all Daikin piping rules
8. Installing contractor to have completed Daikin Training
9. Installing contractor to complete Daikin Pre-Start-Up Checklist
10. 10-year compressor / 10-year parts on all VRV equipment

Items Not Included by Daikin Applied:

- Any strainers or flow switches
- Rigging, assembling and setting of HVAC equipment in place
- Controls or Wiring
- Any ductwork or filter media
- Any centralized controllers / translators
- Refrigerant piping design / materials & specialties by other
- Service contract unless otherwise indicated
- Any control valves and actuators
- Any secondary drain pans or leak detectors
- Labor warranty of any kind unless otherwise indicated
- Curb and Vibration isolation unless otherwise indicated
- Disconnect Switches

Notes:

- **The (5) HP-C units serving the Main Hall have been replaced with (6) HP-B. The largest Daikin wall mount size is 2-ton.**

Rev01 Notes:

- **Although there is an associated cost with the electrical work, the owners would benefit as the Daikin unit has higher output, higher efficiency for cooling, and higher COP for heating.**

Rev02 Notes:

- **CU-1: Removing (1) A unit from entrance lobby area. One second floor (1) A unit removed from stairway and hall unit increased to 1-ton**

Rev03 Notes:

- **Final Piping Lengths Included**
- **Start-up Included**

Material list

Model	Quantity	Description
RXYQ240XATJA	2	VRV-IV-X -A (208-230V)
FXAQ07PVJU	24	FXAQ - Wall Mounted Unit
FXAQ12PVJU	1	FXAQ - Wall Mounted Unit
FXAQ24PVJU	11	FXAQ - Wall Mounted Unit
KHRP26A22T9	23	Refnet branch piping kit
KHRP26A33T9	5	Refnet branch piping kit
KHRP26M72TU9	4	Refnet branch piping kit
KHRP26M73TU9	2	Refnet branch piping kit
DCM601A71	1	intelligent Touch Manager (iTM)
BHFP22P100U	2	Outdoor Multi Connection Pipe Kit - VRV P Series HP
BRC1E73	36	new Navigation Remote Controller
DCM014A51	1	ITM BACnet Server Gateway Option

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	Suction	Total
	ft	ft	ft
1/4"	236.0	0.0	236.0
3/8"	450.0	0.0	450.0
1/2"	28.0	236.0	264.0
5/8"	77.0	349.0	426.0
3/4"	0.0	37.0	37.0
7/8"	0.0	64.0	64.0
1 1/8"	0.0	48.0	48.0
1 3/8"	0.0	57.0	57.0

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	WidthxHeightxDepth
Weight	Weight of the device
Min coil	Minimum coil volume
Max coil	Maximum coil volume
Air Flow Rate	Air Flow Rate

CU-1 - RXYQ240XATJA = RXYQ120XATJA + RXYQ120XATJA

Capacity data at conditions and connection ratio (78) 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
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
1-Ton	FXAQ12PVJU	78.8/65.5	n/a	0	11,342	n/a	42.8	52.6	8,348
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
			0						

Name	FCU	Heating						
		Tmp H	Rq HC	Max HC	Tdis H	Min coil	Max coil	Air Flow Rate
		°F	BTU/h	BTU/h	°F	in³	in³	m³/h
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
1-Ton	FXAQ12PVJU	68.0	n/a	14,000	111.9	n/a	n/a	492.71

Name	FCU	Heating						
		Tmp H	Rq HC	Max HC	Tdis H	Min coil	Max coil	Air Flow Rate
		°F	BTU/h	BTU/h	°F	in³	in³	m³/h
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
			n/a					

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		inch	lbs
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
1-Ton		31 - 38	208-230V 1ph	0.4	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5

Remarks

Under capacity

The sum of the required indoor unit capacities is 215,500BTU/h for heating. However, the selected outdoor unit has a heating capacity of 206,761BTU/h (= -4.1%). Be aware that an undersized system may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

CU-2 - RXYQ240XATJA = RXYQ120XATJA + RXYQ120XATJA

Capacity data at conditions and connection ratio (113) as entered

Name	FCU	Cooling							
		Tmp C °F (DBT/WBT)	Rq TC BTU/h	Rv TC BTU/h	Max TC BTU/h	Rq SC BTU/h	Tevap °F	Tdis C °F	Max SC BTU/h
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
B	FXAQ24PVJU	78.8/65.5	n/a	0	22,735	n/a	42.8	55.2	16,509
A	FXAQ07PVJU	78.8/65.5	n/a	0	7,095	n/a	42.8	58.0	5,937
			0						

Name	FCU	Heating						
		Tmp H	Rq HC	Max HC	Tdis H	Min coil	Max coil	Air Flow Rate
		°F	BTU/h	BTU/h	°F	in³	in³	m³/h
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
B	FXAQ24PVJU	68.0	n/a	27,500	107.4	n/a	n/a	1,078.87
A	FXAQ07PVJU	68.0	n/a	8,700	98.4	n/a	n/a	441.74
			n/a					

Name	Room	Sound	PS	MCA	MOP	WxHxD	Weight
		dBA		A		inch	lbs
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
B		41 - 47	208-230V 1ph	0.6	15A	41.4 x 11.4 x 9.3	30.9
A		29 - 35	208-230V 1ph	0.3	15A	31.3 x 11.4 x 9.3	26.5

Remarks

Under capacity

The sum of the required indoor unit capacities is 255,730BTU/h for cooling and 238,546BTU/h for heating. However, the selected outdoor unit has a cooling capacity of 236,813BTU/h (= -7.4%) and a heating capacity of 210,796BTU/h (= -11.6%). Be aware that an undersized system may lead to reduced comfort levels, different noise levels or increased wear and tear.

Reduced operational load

The sum of the required indoor unit capacities is 309,800BTU/h for heating. However, the outdoor unit selection uses reduced load values for heating of 238,546BTU/h (=77%). Be aware that unrealistic reductions may lead to reduced comfort levels, different noise levels or increased wear and tear.

Outdoor vs. indoor position

Outdoor unit placed at the same level as the indoor units.

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
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
			Tmp C	CC	Rq CC	Tmp H	HC	Rq HC	
		%	°F	BTU/h	BTU/h	°F (DBT/WBT)	BTU/h	BTU/h	ft
CU-1	RXYQ240XATJA▼	77.5	84.2	210,127	175,981	32.0/30.7	206,761	215,500	186.8
CU-2	RXYQ240XATJA▼	112.5	84.2	236,813	255,730	32.0/30.7	210,796	238,546	118.1

Name	Model	PS	MCA	MOP	RLA	FLA	WxHxD	Weight
			A	A	A	A	inch	lbs
CU-1	RXYQ240XATJA	208V - 230V 3ph						
A	- RXYQ120XATJA		36.3	45.0	26.2		48.9 x 66.7 x 30.2	526.9
B	- RXYQ120XATJA		36.3	45.0	26.2		48.9 x 66.7 x 30.2	526.9
CU-2	RXYQ240XATJA	208V - 230V 3ph						
A	- RXYQ120XATJA		36.3	45.0	26.2		48.9 x 66.7 x 30.2	526.9
B	- RXYQ120XATJA		36.3	45.0	26.2		48.9 x 66.7 x 30.2	526.9

Name	Efficiency Metrics																
	Combination			Ducted							Non-Ducted						
	EER	SEER	HSPF	EER	IEER	COP47	COP17	SCHE	SEER	HSPF	EER	IEER	COP47	COP17	SCHE	SEER	HSPF
CU-1				11.2	20.9	3.33	2.34				11.3	20.8	3.63	2.43			
CU-2				11.2	20.9	3.33	2.34				11.3	20.8	3.63	2.43			

Refrigerant information

Name	Model	Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
CU-1	RXYQ240XATJA	R410A	2087.5	45.9	21.5	63.7
CU-2	RXYQ240XATJA	R410A	2087.5	45.9	20.2	62.5

The system(s) contain fluorinated greenhouse gases.

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 - RXYQ240XATJA = RXYQ120XATJA + RXYQ120XATJA

Model	Quantity	Description
RXYQ240XATJA	1	VRV-IV-X -A (208-230V)
FXAQ07PVJU	20	FXAQ - Wall Mounted Unit
FXAQ12PVJU	1	FXAQ - Wall Mounted Unit
FXAQ24PVJU	1	FXAQ - Wall Mounted Unit
KHRP26A22T9	17	Refnet branch piping kit
KHRP26A33T9	3	Refnet branch piping kit
KHRP26M73TU9	1	Refnet branch piping kit
BHFP22P100U	1	Outdoor Multi Connection Pipe Kit - VRV P Series HP
BRC1E73	22	new Navigation Remote Controller

Piping	Liquid	Suction	Total
	ft	ft	ft
1/4"	204.0	0.0	204.0
3/8"	246.0	0.0	246.0
1/2"	0.0	204.0	204.0
5/8"	54.0	165.0	219.0
3/4"	0.0	32.0	32.0
7/8"	0.0	49.0	49.0
1 3/8"	0.0	54.0	54.0

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
R410A	2087.5	45.9	21.5*)	63.7

The system(s) contain fluorinated greenhouse gases.

*) Extra refrigerant charge = 2.2046 (B) + [54.0 ft (ø5/8 ") × 0.3946 + 246.0 ft (ø3/8 ") × 0.1301 + 204.0 ft (ø1/4 ") × 0.0485] × 0.3048 = 21.5lbs

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.

Pipe capacities

Maximum Connection Index	Diameters
53.9	3/8"x5/8"
71.9	3/8"x3/4"
110.9	3/8"x7/8"
161.9	1/2"x1 1/8"

Maximum Connection Index	Diameters
229.9	5/8"x1 1/8"
299.9	3/4"x1 3/8"
> 299.9	3/4"x1 5/8"
Main pipe size up	3/4"x1 3/8"

Remarks

Sufficient distance should be respected between the modules according to the service & operation space rules as mentioned in the databook.

Piping limitations

Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	295.3ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	295.3ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	295.3ft
Maximum height difference in technical cooling, outdoor unit above indoor units	295.3ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	3/4" (liquid) x 1 3/8" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

CU-2 - RXYQ240XATJA = RXYQ120XATJA + RXYQ120XATJA

Model	Quantity	Description
RXYQ240XATJA	1	VRV-IV-X -A (208-230V)
FXAQ07PVJU	4	FXAQ - Wall Mounted Unit
FXAQ24PVJU	10	FXAQ - Wall Mounted Unit
KHRP26A22T9	6	Refnet branch piping kit
KHRP26A33T9	2	Refnet branch piping kit
KHRP26M72TU9	4	Refnet branch piping kit
KHRP26M73TU9	1	Refnet branch piping kit
BHFP22P100U	1	Outdoor Multi Connection Pipe Kit - VRV P Series HP
BRC1E73	14	new Navigation Remote Controller

Piping	Liquid	Suction	Total
	ft	ft	ft
1/4"	32.0	0.0	32.0
3/8"	204.0	0.0	204.0
1/2"	28.0	32.0	60.0
5/8"	23.0	184.0	207.0
3/4"	0.0	5.0	5.0
7/8"	0.0	15.0	15.0
1 1/8"	0.0	48.0	48.0
1 3/8"	0.0	3.0	3.0

Refrigerant information

Refrigerant type	GWP	Base charge lbs	Extra charge lbs	TCO2 equivalent
R410A	2087.5	45.9	20.2*)	62.5

The system(s) contain fluorinated greenhouse gases.

*) Extra refrigerant charge = 6.6139 (B) + [23.0 ft (ø5/8 ") × 0.3946 + 28.0 ft (ø1/2 ") × 0.2646 + 204.0 ft (ø3/8 ") × 0.1301 + 32.0 ft (ø1/4 ") × 0.0485] × 0.3048 = 20.2lbs

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.

Pipe capacities

Maximum Connection Index	Diameters
53.9	3/8"x5/8"
71.9	3/8"x3/4"
110.9	3/8"x7/8"
161.9	1/2"x1 1/8"
229.9	5/8"x1 1/8"
299.9	3/4"x1 3/8"
> 299.9	3/4"x1 5/8"
Main pipe size up	3/4"x1 3/8"

Remarks

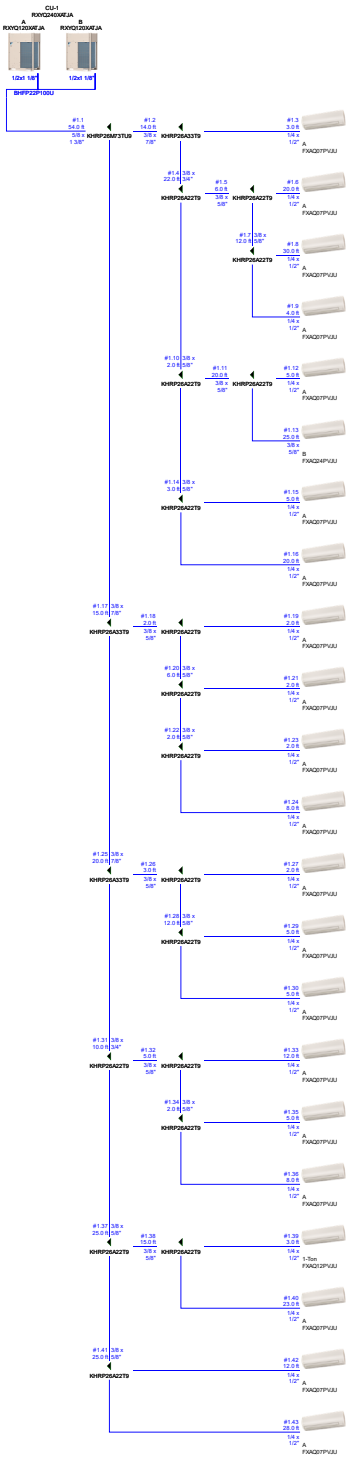
Sufficient distance should be respected between the modules according to the service & operation space rules as mentioned in the databook.

Piping limitations

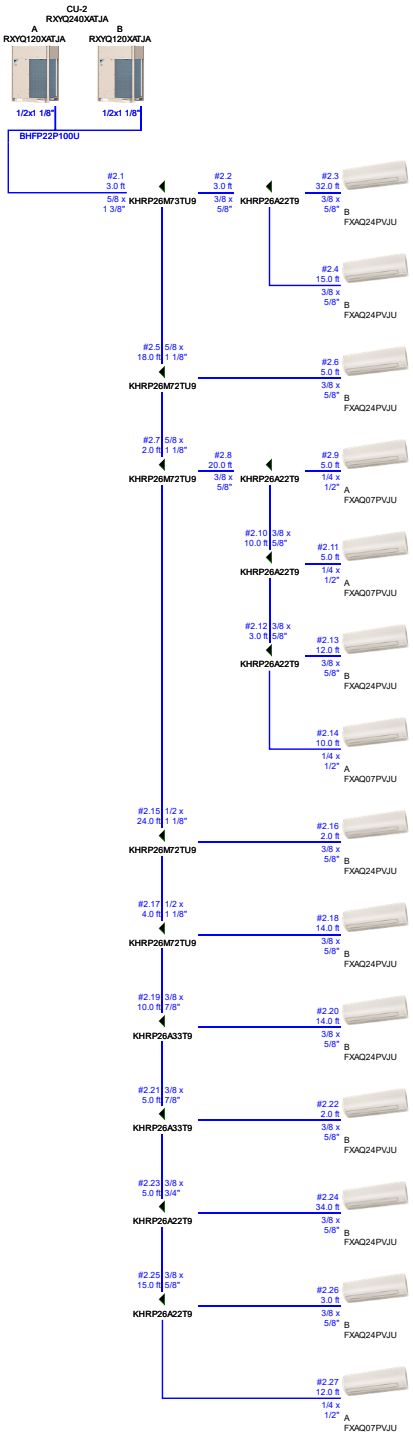
Description	Value
Maximum total length	3,280.8ft
Maximum longest actual length	541.3ft
Maximum longest equivalent length	623.4ft
Maximum main pipe length (size up of main pipe required if longer)	-
Maximum length first branch to indoor unit(size up of intermediate pipes required if longer)	131.2ft
Maximum length first branch to indoor unit	295.3ft
Maximum length of indoor units to nearest branch	131.2ft
Maximum length difference between longest and shortest distance to indoor units	131.2ft
Maximum height difference, outdoor unit below indoor units	295.3ft
Minimum connection ratio, outdoor unit below indoor units	-
Maximum height difference, outdoor unit above indoor units	295.3ft
Minimum connection ratio, outdoor unit above indoor units	-
Maximum height difference in technical cooling, outdoor unit below indoor units	295.3ft
Maximum height difference in technical cooling, outdoor unit above indoor units	295.3ft
Maximum height difference between indoor units	98.4ft
Connection ratio range	50.0% - 200.0%
Refrigerant pipe diameters	3/4" (liquid) x 1 3/8" (gas)
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET (size up of intermediate pipes required if longer)	-
Maximum equivalent length from BP unit or VRV indoor to VRV REFNET	295.3ft
Maximum actual length between CM and HM	-
Maximum height difference between CM and HM	-

Piping diagrams

Piping CU-1

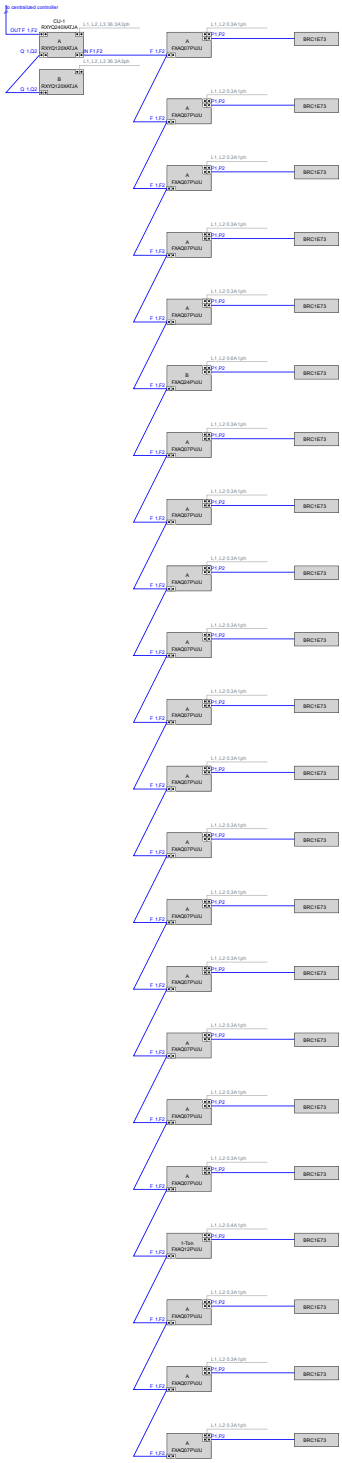


Piping CU-2



Wiring diagrams

Wiring CU-1

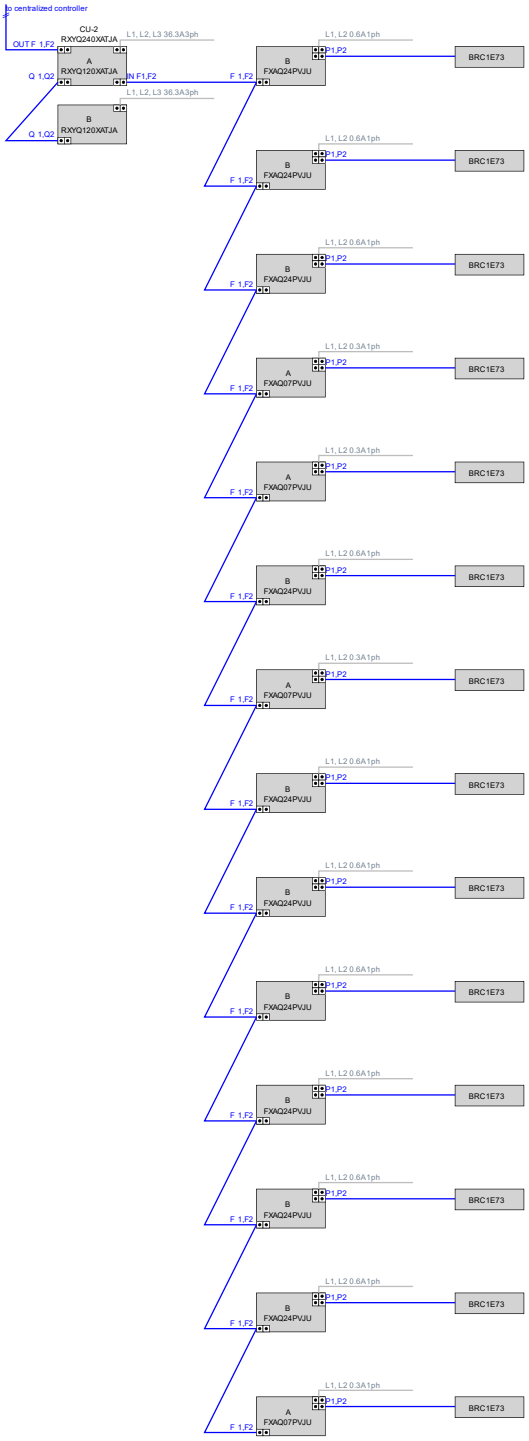


Remarks

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

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

Wiring CU-2



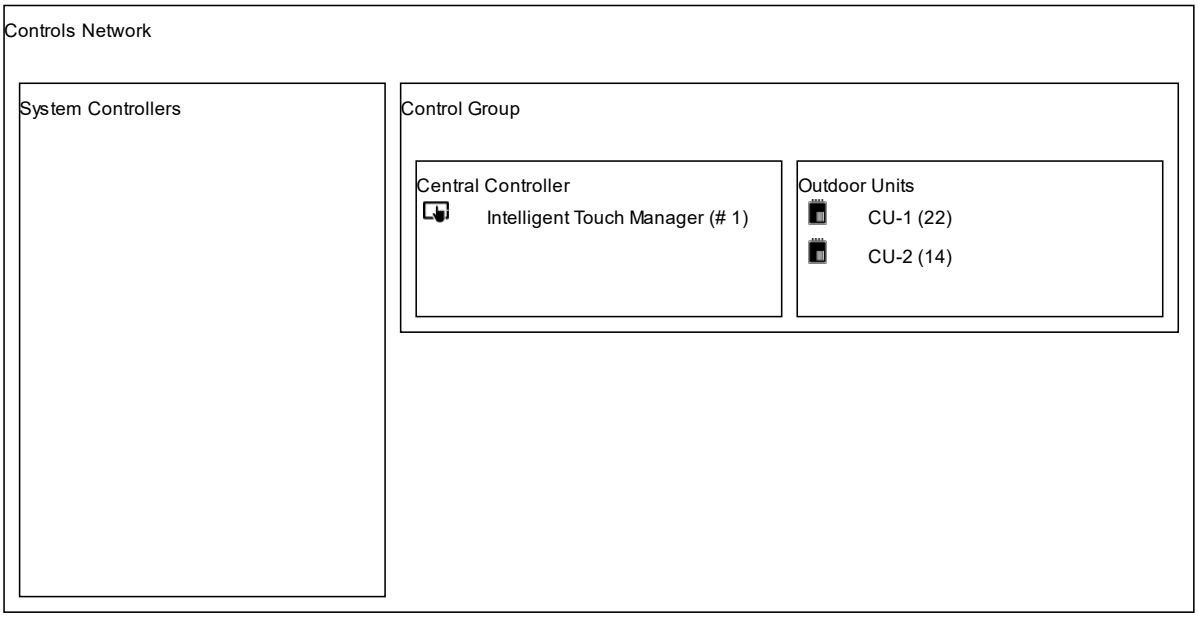
Remarks

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

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

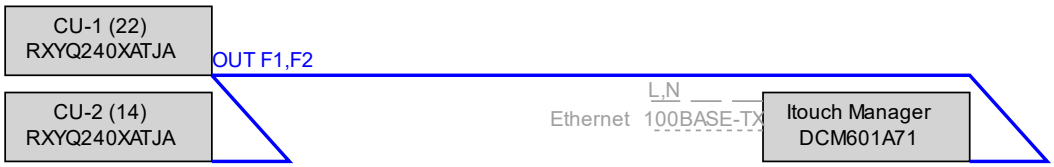
Centralized controllers

Concept



Controller wiring diagrams

Control Group



Submittal Data Sheet

10 Ton, 230V VRV IV X HP - RXYQ120XATJA

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: CU-1, CU-2

FEATURES

- Industry's first 3 phase Heat Pump 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.
- Variable Refrigerant Temperature (VRT) control allows the VRV IV to deliver up to 28% of improvement in seasonal cooling efficiency compared to previous Daikin VRV heat pump systems
- New service window provides quick access to multi-functional display and configuration buttons.
- Assembled in the US to increase flexibility and reduce lead times
- Multi-functional display provides refrigerant pressures and temperatures eliminating the need to connect gauges during regular maintenance check.
- Standard Limited Warranty: 10-year limited parts warranty
- Easy commissioning with ability to program settings off site using configurator tool.

BENEFITS

- Modular and lightweight - enables flexibility in system layout and installation
- Integrated inverter technology deliver maximum efficiency during part load conditions and provide precise individual zone control
- Corrosion resistance 1000hr salt spray tested Daikin PE blue fin heat exchanger
- Design flexibility with long piping lengths up to 3,280 ft. total and 100 ft. vertical separation between indoor units
- 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).
- Field performable Intermittent outdoor fan operation to help minimize snow accumulation on fan blades when the system is off.

Submittal Data Sheet

10 Ton, 230V VRV IV X HP - RXYQ120XATJA

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: CU-1, CU-2

PERFORMANCE			
Outdoor Unit Model No.	RXYQ120XATJA	Outdoor Unit Name:	10 Ton, 230V VRV IV X HP
Type:	Heat Pump	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):	9.00	Heating Input Power (kW):	9.92
EER (Non-Ducted/Ducted):	12.00 / 11.60	Heating COP (Non-Ducted/Ducted):	3.5 / 3.3
IEER (Non-Ducted/Ducted):	25.40 / 22.00	Heating COP 17F (Non-Ducted/Ducted):	2.3 / 2.4

OUTDOOR UNIT DETAILS			
Power Supply (V/Hz/Ph):	208-230 / 60 / 3	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3 Ground	Capacity Control Range (%):	15 - 100
Min. Circuit Amps MCA (A):	36.3	Capacity Index Limit:	60.0 - 156.0
Max Overcurrent Protection (MOP) (A):	45	Airflow Rate (H) (CFM):	6286
Max Starting Current MSC(A):		Gas Pipe Connection (inch):	1-1/8
Rated Load Amps RLA(A):	26.2	Liquid Pipe Connection (inch):	1/2
Dimensions (Height) (in):	66-11/16	H/L Pressure Connection (inch)	
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):	528	Sound Power Level (dBA):	81
		Max. No. of Indoor Units:	20

Submittal Data Sheet

10 Ton, 230V VRV IV X HP - RXYQ120XATJA

Project: Bedford Hills Community House

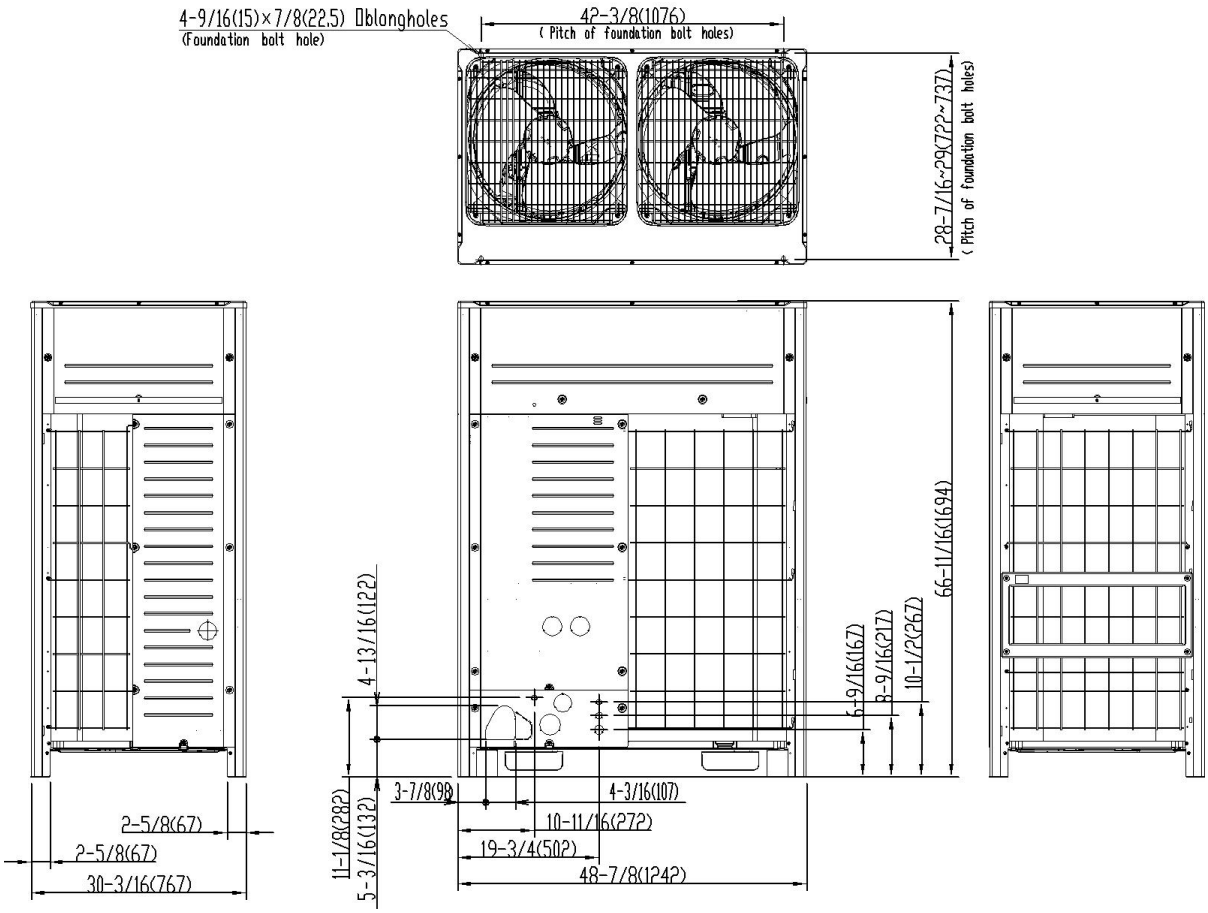
Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: CU-1, CU-2

SYSTEM DETAILS			
Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	23 - 122
Holding Refrigerant Charge (lbs):	22.9	Heating Operation Range (°F WB):	-4 - 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	Heating Range w/Baffle (°F WB):	-
Max Height Separation (Ind to Ind ft):			

DIMENSIONAL DRAWING



Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: A (27)

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

Submittal Data Sheet

0.5-Ton Wall Mounted Unit - FXAQ07PVJU

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: A (27)

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: Bedford Hills Community House

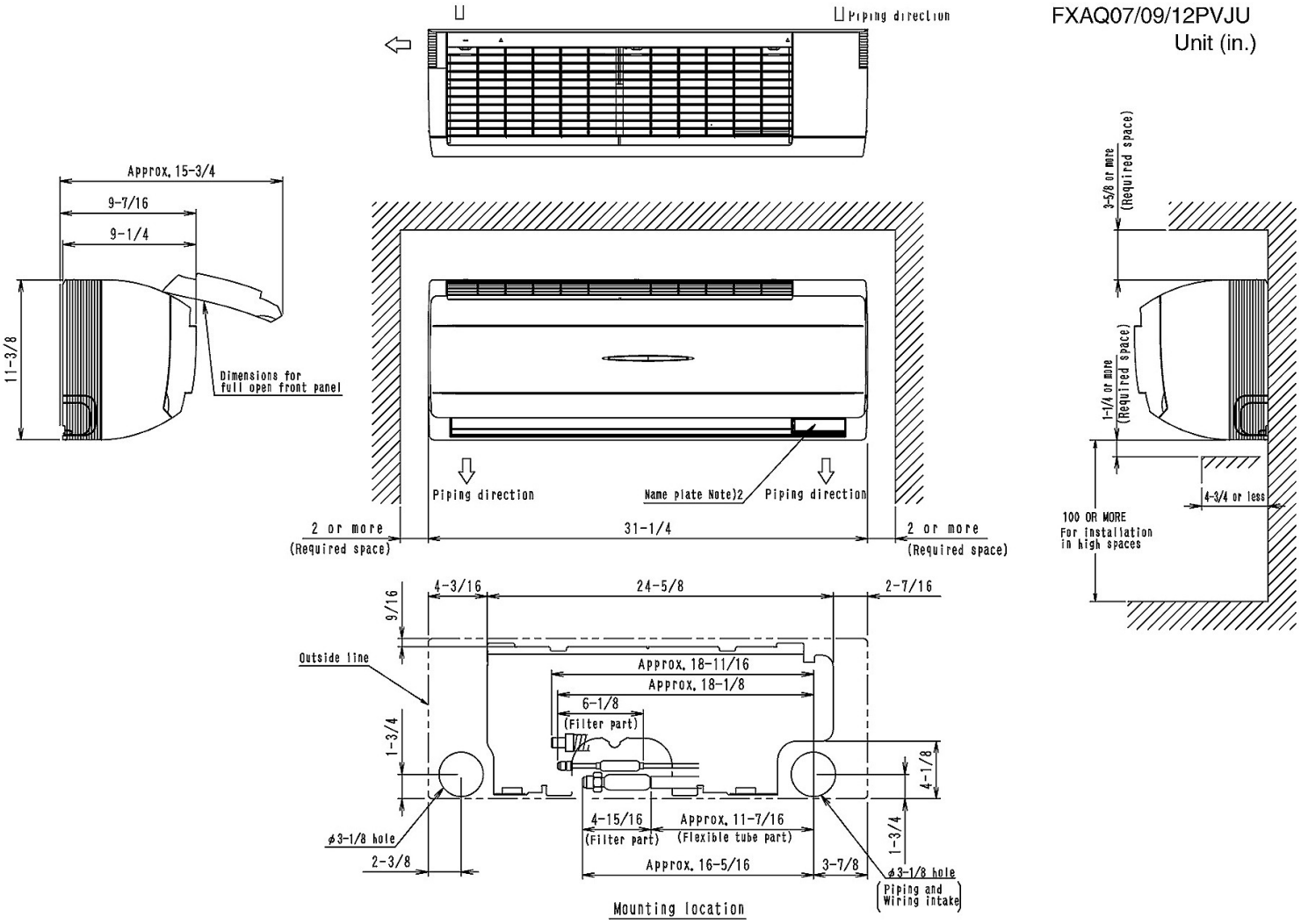
Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: A (27)

DIMENSIONAL DRAWING

FXAQ07/09/12PVJU
Unit (in.)



Submittal Data Sheet

2.0-Ton Wall Mounted Unit - FXAQ24PVJU

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: B (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

Submittal Data Sheet

2.0-Ton Wall Mounted Unit - FXAQ24PVJU

Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

Submitted to: No Engineer Name Specified

Tags: B (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

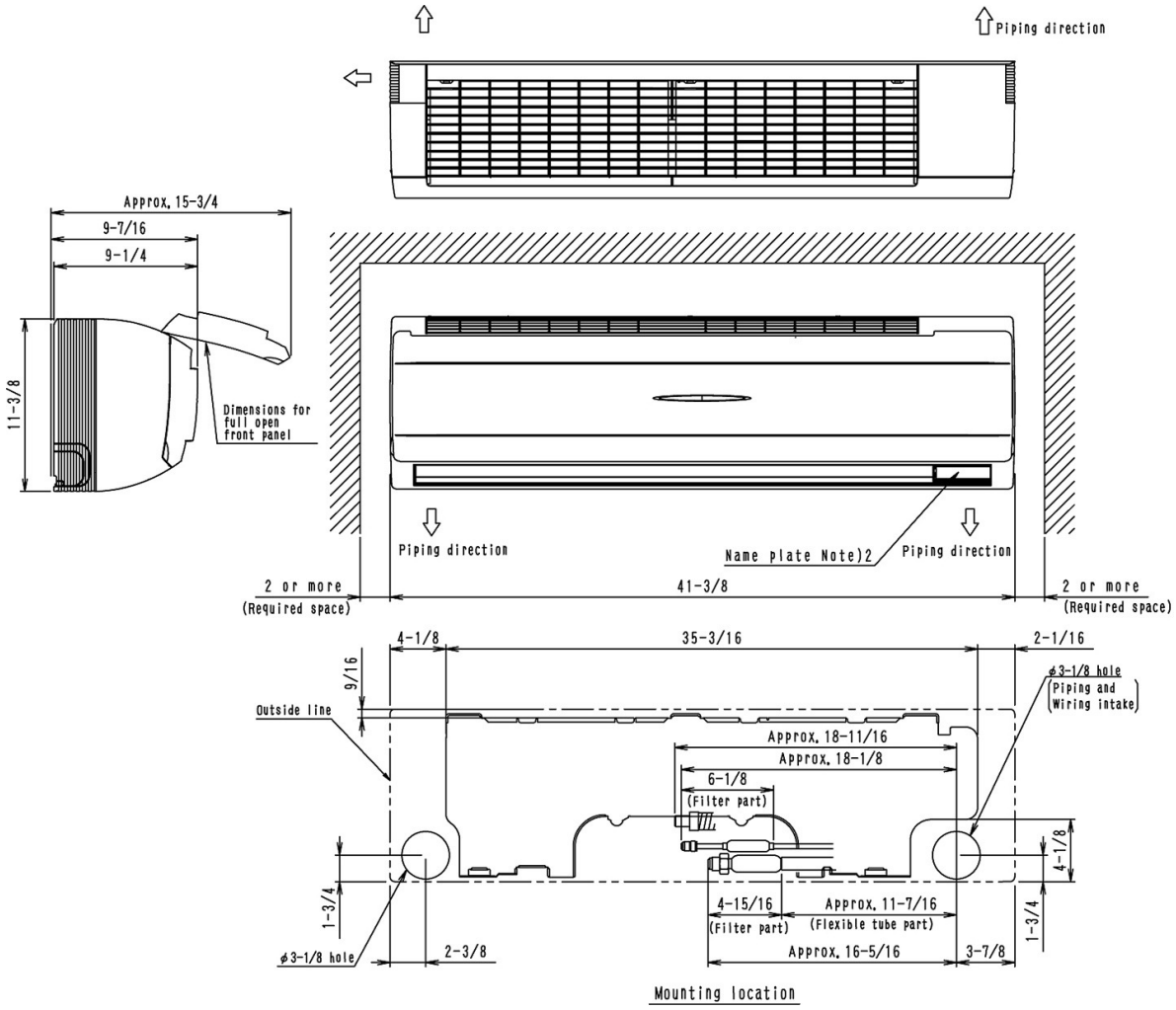
Project: Bedford Hills Community House

Submitted by: James Locascio of DAIKIN APPLIED NEW YORK on 12/9/2020

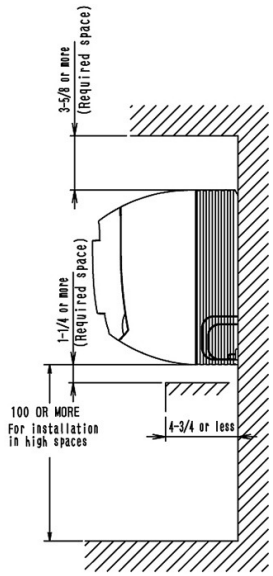
Submitted to: No Engineer Name Specified

Tags: B (11)

DIMENSIONAL DRAWING



FXAQ24PVJU
Unit (in.)



Submittal Data Sheet

1.0-Ton Wall Mounted Unit

FXAQ12PVJU

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

Submittal Data Sheet

1.0-Ton Wall Mounted Unit

FXAQ12PVJU

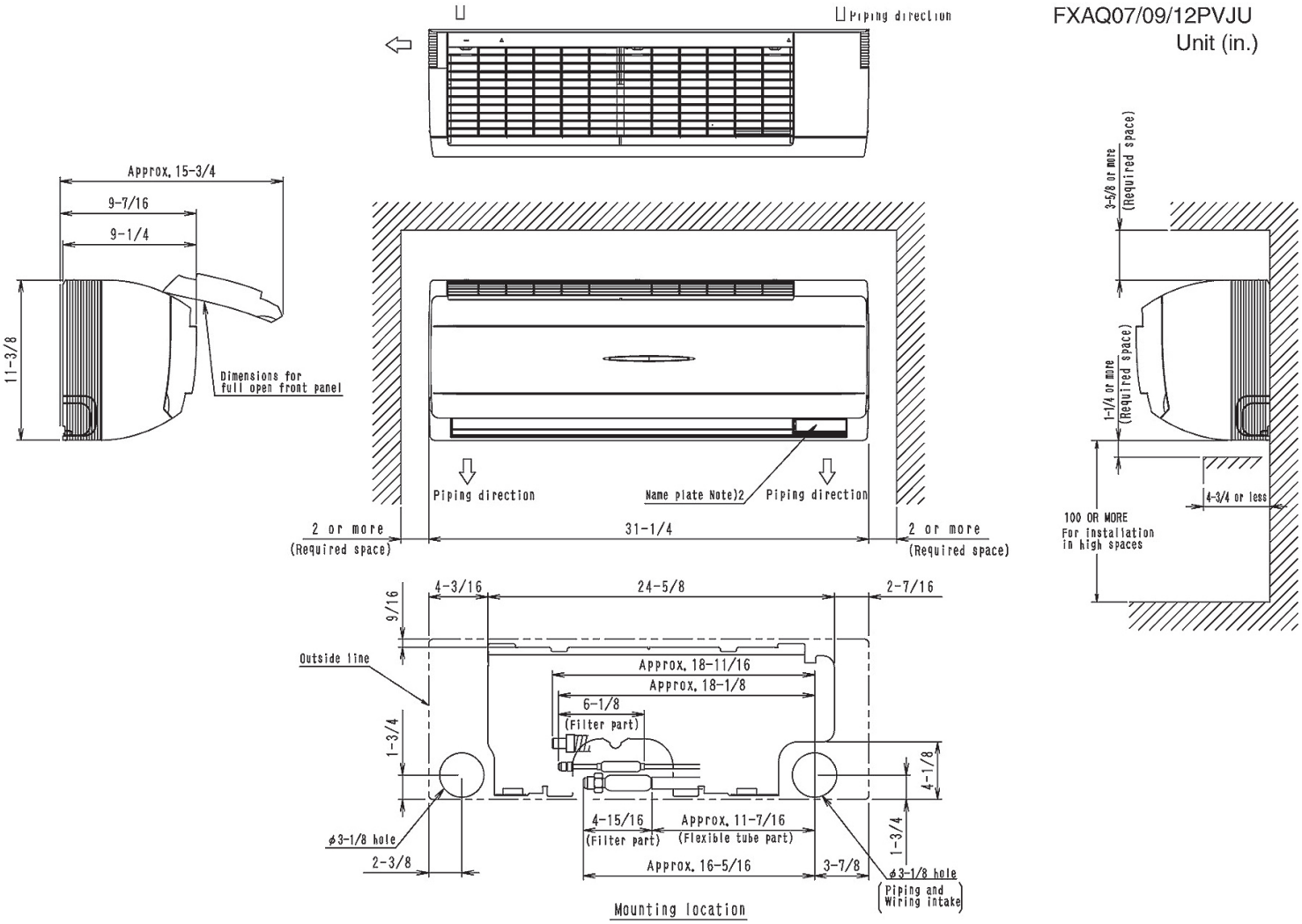
PERFORMANCE			
Indoor Unit Model No.	FXAQ12PVJU	Indoor Unit Name:	1.0-Ton Wall Mounted Unit
Type:	Wall Mounted	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Rated Cooling Capacity (Btu/hr):	12,000	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 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):	

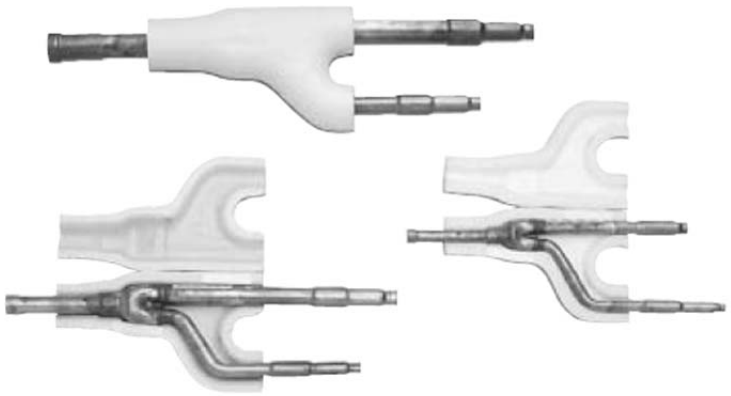
Submittal Data Sheet
1.0-Ton Wall Mounted Unit
FXAQ12PVJU

DIMENSIONAL DRAWING

FXAQ07/09/12PVJU
Unit (in.)



Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26A22T9



Picture for REFERENCE ONLY

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 ± 30° from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation[1,2] for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.

SPECIFICATIONS		
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	Expandable Polystyrene (EPS)
Insulation Quantity (per Joint):	1 pcs.	1 pcs.
Indoor Unit Capacity Index:	< 72	
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations	

Notes:

1) In applications where the REFNET kits are installed 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 REFNET 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 condensate on the surface of insulation.

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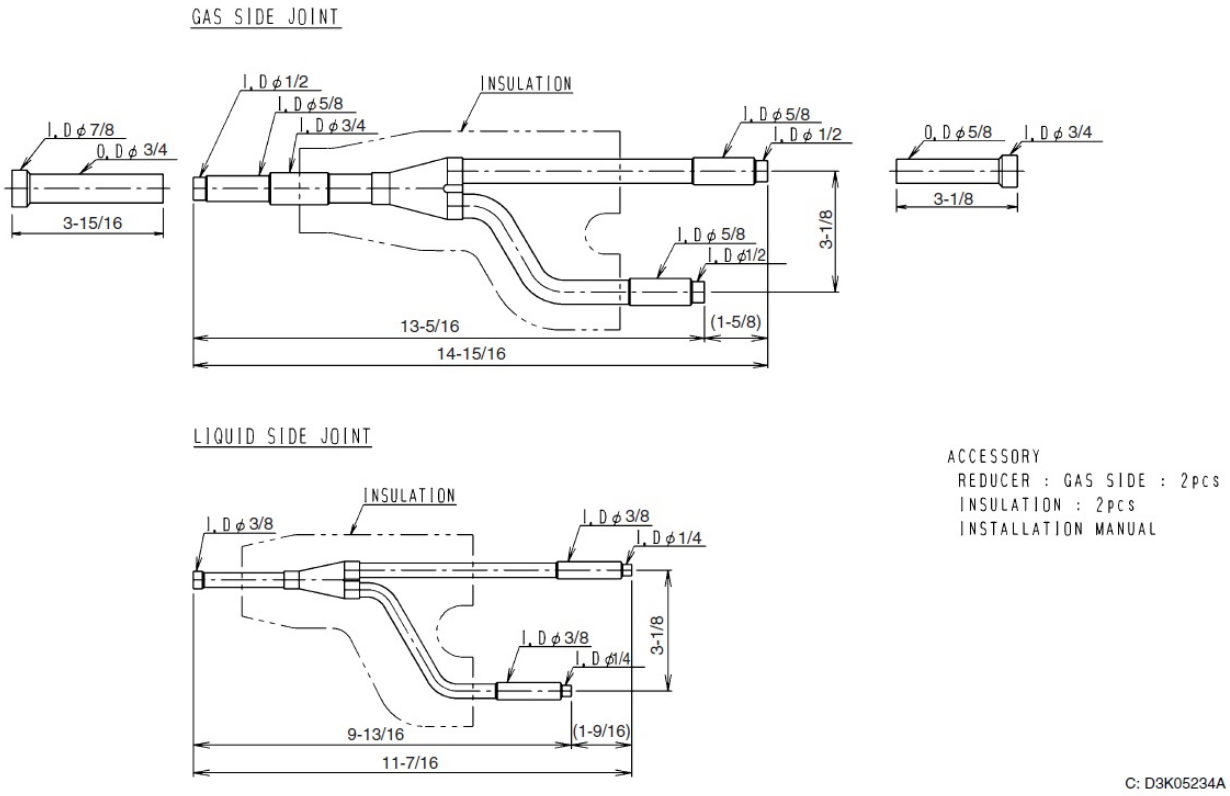
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26A22T9

DIMENSIONAL DRAWING

KHRP26A22T9

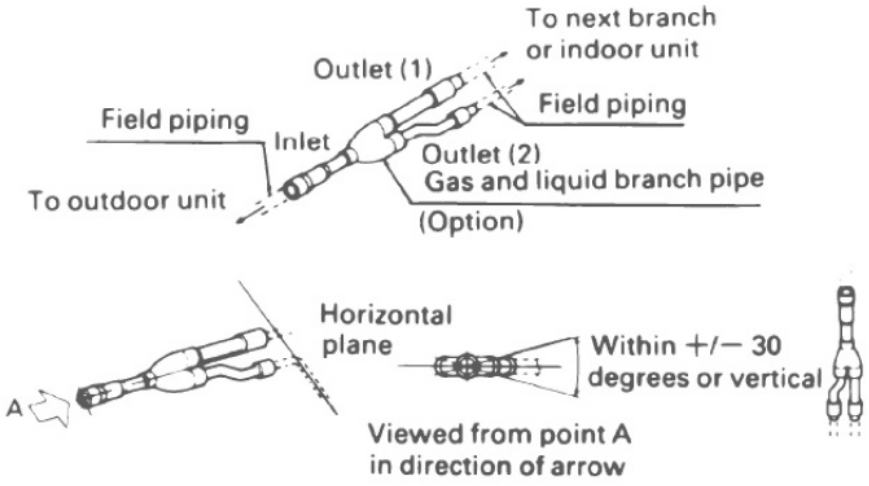
Unit: in



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

C: D3K05234A

TYPICAL INSTALLATION DRAWING



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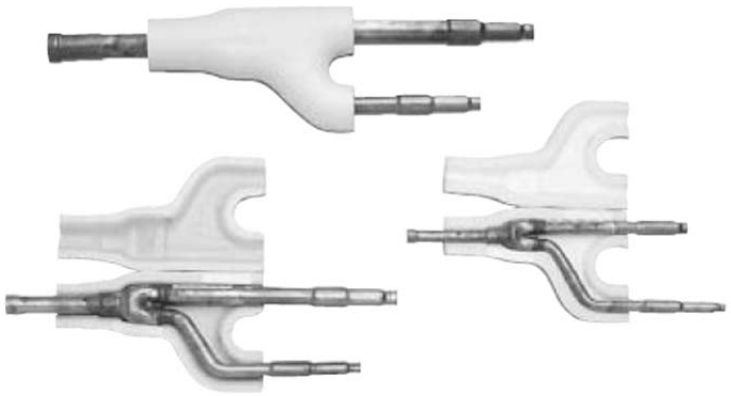
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26A33T9



Picture for REFERENCE ONLY

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 ± 30° from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation[1,2] for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.

SPECIFICATIONS		
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 1 pcs – I.D. Ø 1	-
Insulation Material:	Polypropylene	Expandable Polystyrene (EPS)
Insulation Quantity (per Joint):	1 pcs.	1 pcs.
Indoor Unit Capacity Index:	72 ≤ x < 111	
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations	

Notes:

1) In applications where the REFNET kits are installed 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 REFNET 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 condensate on the surface of insulation.

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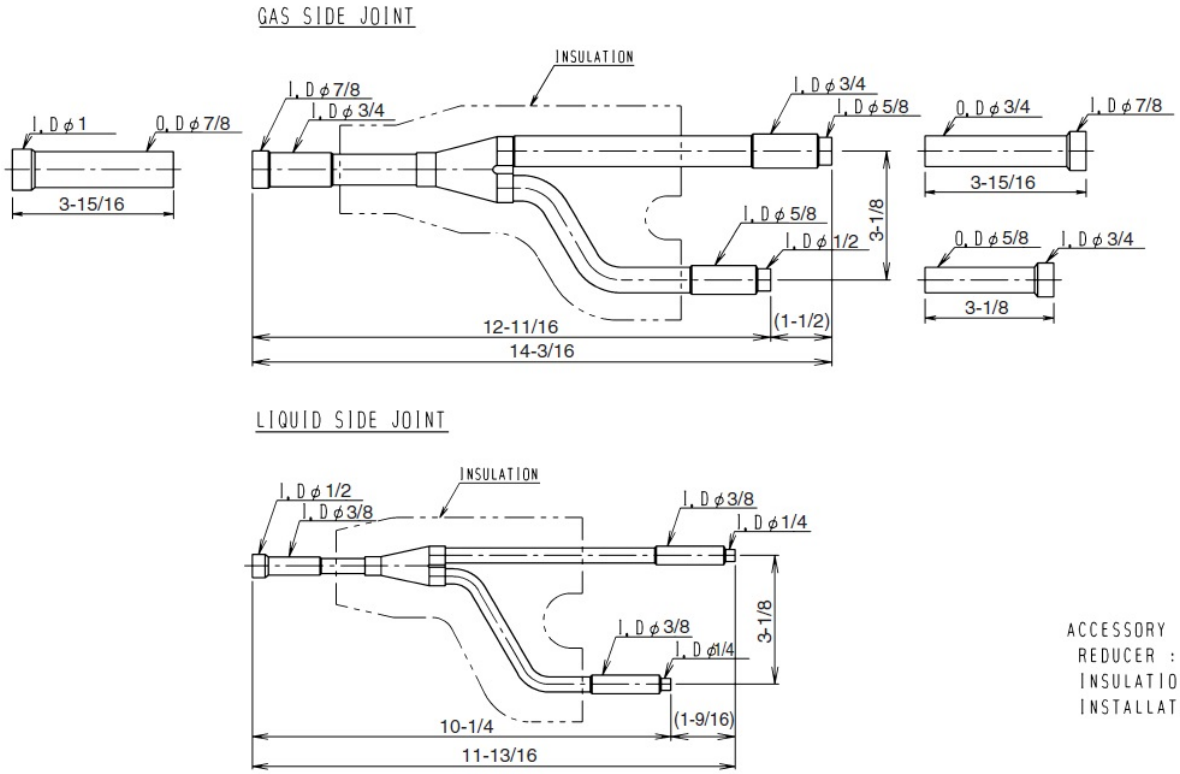
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26A33T9

DIMENSIONAL DRAWING

KHRP26A33T9

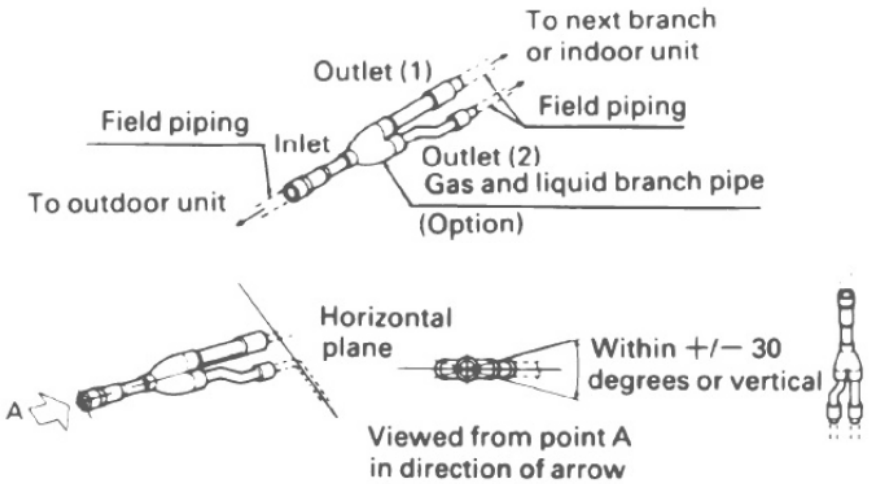
Unit: in.



ACCESSORY
REDUCER : GAS SIDE : 3pcs
INSULATION : 2pcs
INSTALLATION MANUAL

C: D3K05235B

TYPICAL INSTALLATION DRAWING



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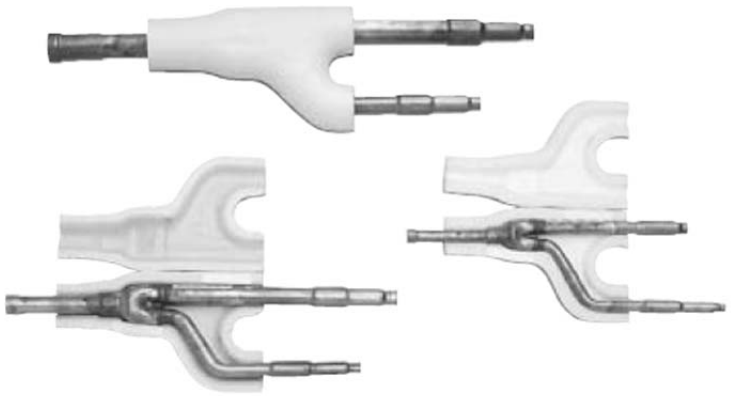
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26M72TU9



Picture for REFERENCE ONLY

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 ± 30° from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation[1,2] for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.

SPECIFICATIONS		
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 5/8 1 pcs – I.D. Ø 7/8 1 pcs – I.D. Ø 1 1 pcs – I.D. Ø 1-1/8	1 pcs – I.D. Ø 5/8 1 pcs – I.D. Ø 3/4
Insulation Material:	Polypropylene	Expandable Polystyrene (EPS)
Insulation Quantity (per Joint):	1 pcs.	1 pcs.
Indoor Unit Capacity Index:	111 ≤ x < 246	
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations	

Notes:

1) In applications where the REFNET kits are installed 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 REFNET 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 condensate on the surface of insulation.

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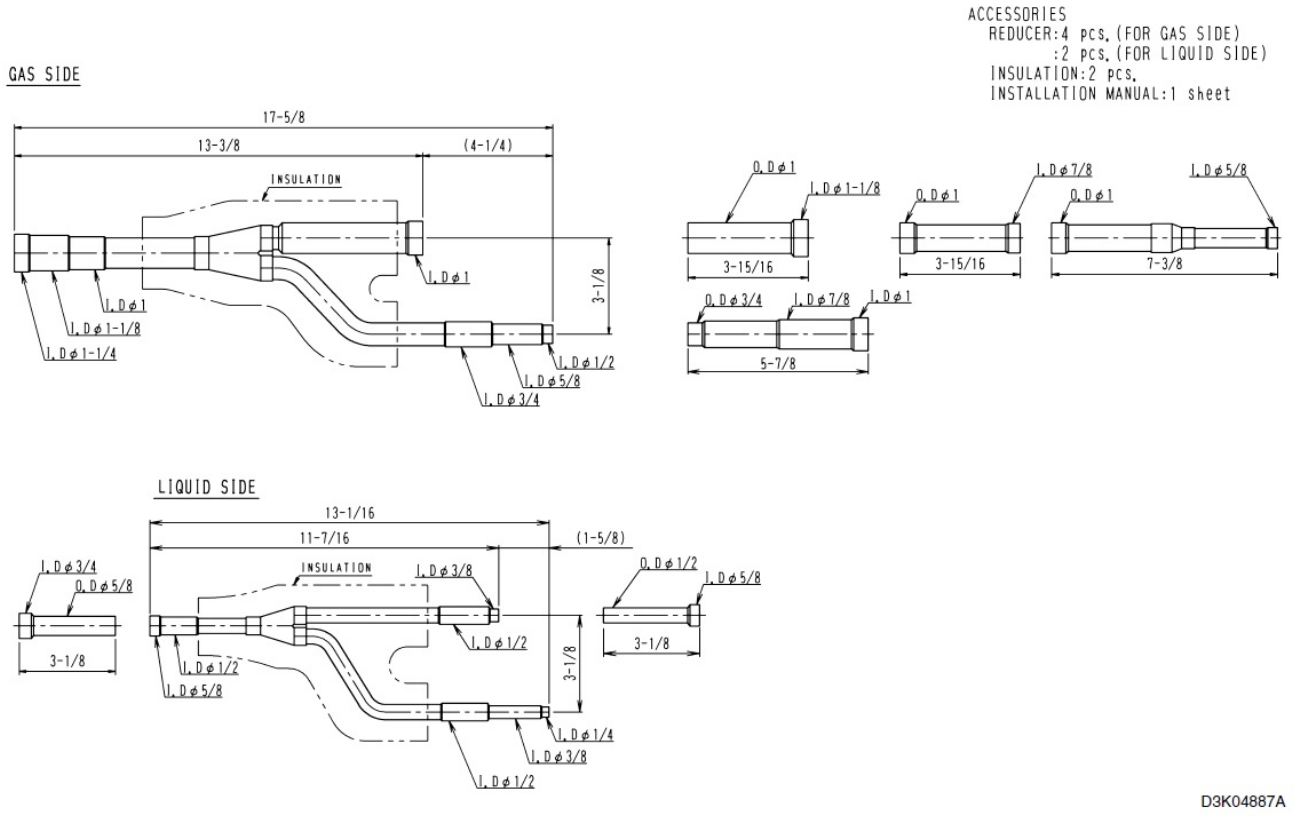
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26M72TU9

DIMENSIONAL DRAWING

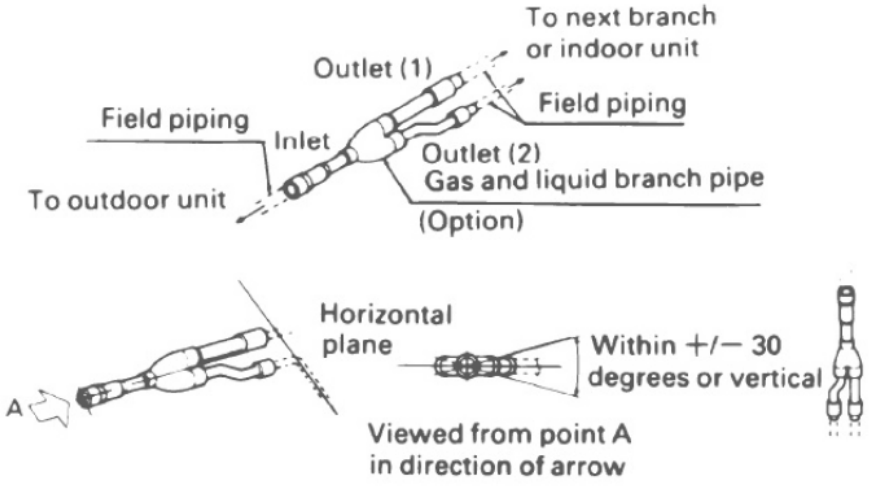
KHRP26M72TU9

Unit: in.



D3K04887A

TYPICAL INSTALLATION DRAWING



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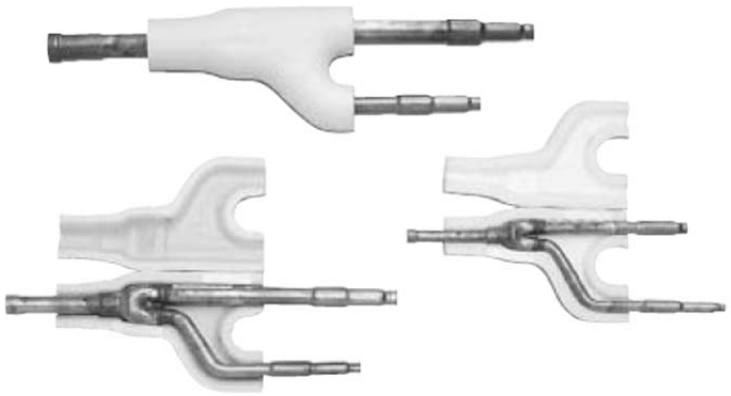
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26M73TU9



Picture for REFERENCE ONLY

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 ± 30° from horizontal.
- Designed with tube diameters (I.D. and O.D.) required for VRV system installations.
- Pre-formed clamshell style insulation[1,2] for cleaner and reliable application.
- Accounts for 1.5 ft equivalent pipe length calculation.

SPECIFICATIONS		
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 1/2 1 pcs – I.D. Ø 5/8 2 pcs – I.D. Ø 1-1/8	1 pcs – I.D. Ø 1/4 1 pcs – I.D. Ø 3/8 1 pcs – I.D. Ø 1/2
Insulation Material:	Polypropylene	Expandable Polystyrene (EPS)
Insulation Quantity (per Joint):	1 pcs.	1 pcs.
Indoor Unit Capacity Index:	≥ 246	
Pipe Connection Size:	Refer to Dimensional Drawing and VRV Express Calculations	

Notes:

1) In applications where the REFNET kits are installed 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 REFNET 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 condensate on the surface of insulation.

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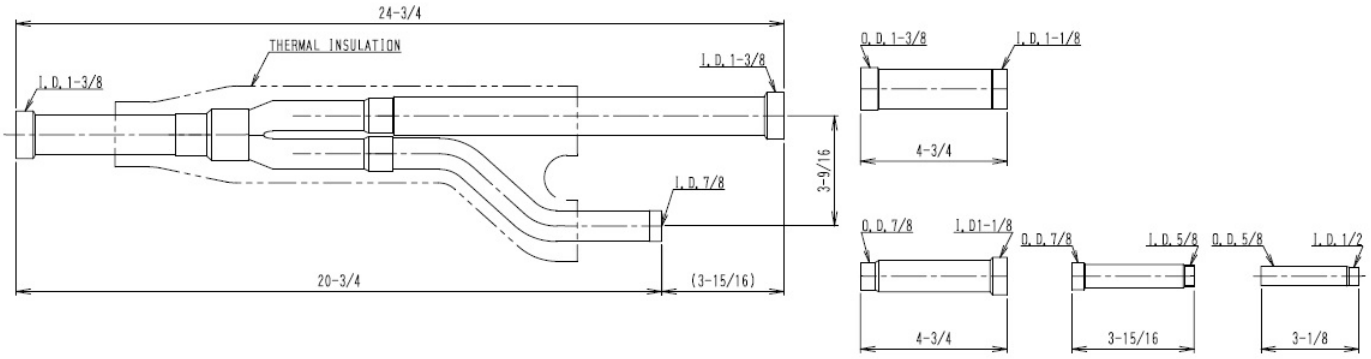
Submittal Data Sheet
2 PIPE REFNET JOINT
KHRP26M73TU9

DIMENSIONAL DRAWING

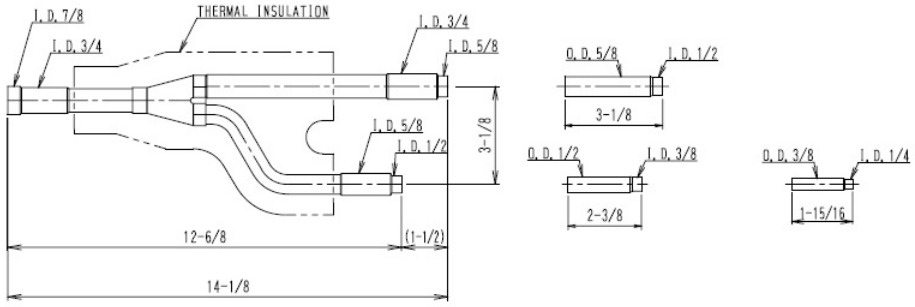
KHRP26M73TU9

Unit: in.

GAS SIDE JOINT



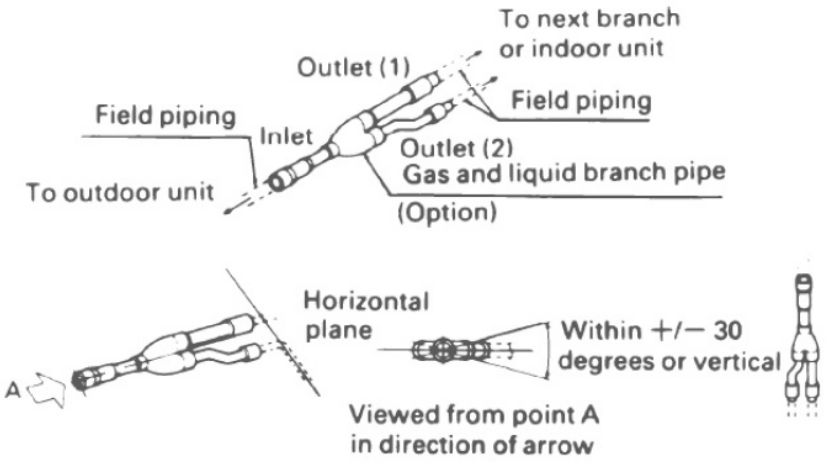
LIQUID SIDE JOINT



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

D3K05572A

TYPICAL INSTALLATION DRAWING



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Submittal Data Sheet

Heat Pump / Dual Module Multi Connection Piping Kit
BHFP22P100U

Note: Actual materials and sizes included may differ from photo

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 installations
- Installation of ±15° from horizontal
- Pre-formed clamshell style insulation[1,2] for cleaner and reliable application
- Designed to help with smoother oil return

SPECIFICATIONS		
Model No.:	BHFP22P100U	
Components Included:	Gas side joint, liquid side joint, reducers, insulation and installation manual	
Unit Compatibility:	RXYQ_TATJU and RXYQ_TAYDU	
Unit Weight:	Estimated shipping weight: 6 lbs (2.7 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[1,2] - Polypropylene	
# of Condensing Units[3]:	2	
	Gas Side	Liquid Side
# of Joints:	1	1
Joint Insulation Quantity:	1 pcs	1 pcs
Reducer Fitting[4] Quantity:	3 pcs	2 pcs
Piping Insulation Quantity:	1 pcs (large size)	1 pcs (small size)

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.

4) Refer to Installation Manual for reducer fitting shapes and dimensions.

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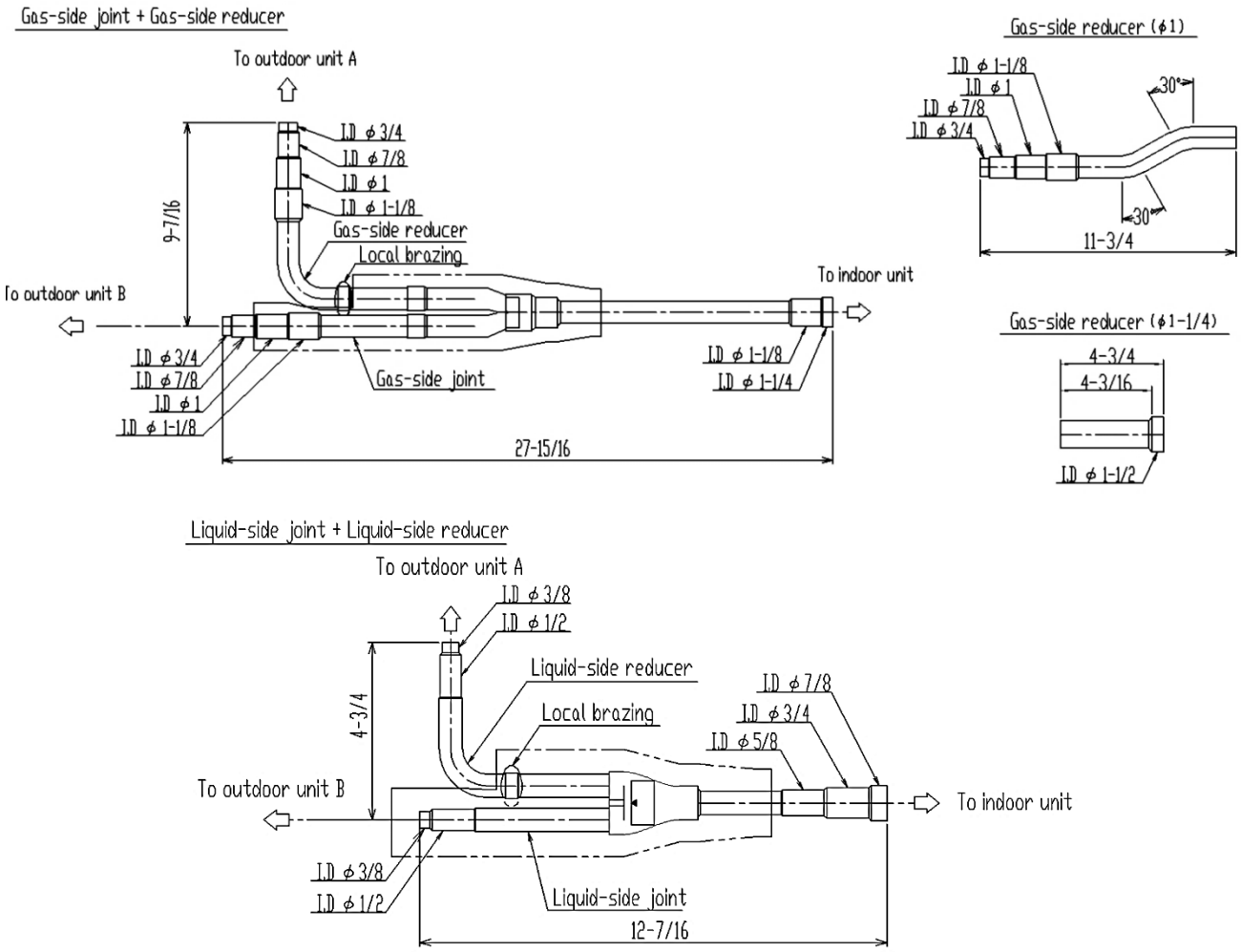
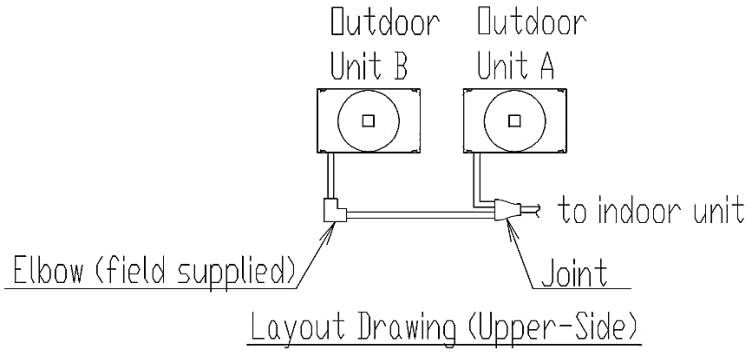
Submittal Data Sheet
Heat Pump / Dual Module Multi Connection Piping Kit
BHFP22P100U

DIMENSIONAL DRAWINGS*



*Refer to Installation Manual for detailed dimensional drawing

TYPICAL INSTALLATION DRAWINGS (For reference only)



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Submittal Data Sheet

BRC1E73 – Navigation Remote Controller

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

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

Submittal Data Sheet

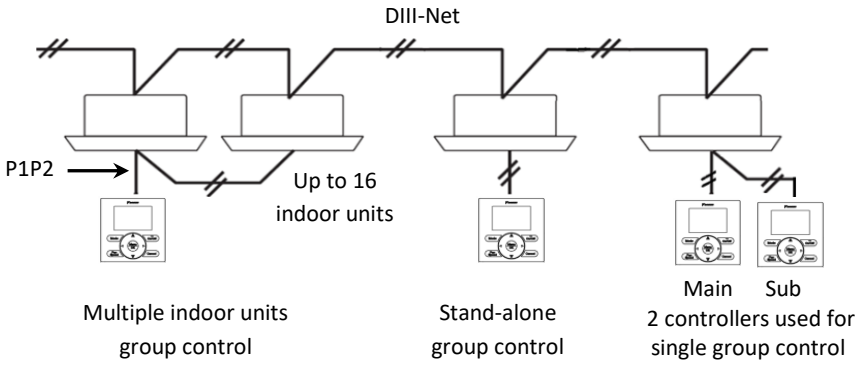
BRC1E73 – Navigation Remote Controller

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

9. Independent cooling and heating setback setpoints (unoccupied period)
10. Auto changeover control with configurable primary and secondary changeover dead bands and guard timer
11. Airflow – Individual air flow direction, dual airflow and auto draft prevention (prevents air blowing directly on occupants)*
12. Built-in 7 days, weekdays+weekend, weekdays+Sat+Sun, and Everyday schedules with up to 5 actions per day with independent cooling and heating or setback setpoints
13. Automatic Setback by occupancy sensor*
14. Automatic Off by occupancy sensor*
15. Configuration for Self-cleaning filter panel**
16. Automatic adjustment for Daylight Savings Time (DST)
17. 48 hour clock/calendar battery backup (protects schedule timing in cases of short term power loss from indoor unit)
18. Real-time monitoring of system malfunctions with immediate display of unit in error and error code
19. The buttons on the remote controller are selectable by locking out the unwanted buttons
20. The operation modes can be restricted to provide only the desired mode(s) of operation
21. Display can be configured to show “Off” and room temperature only when indoor unit is turned off
22. To prevent unwanted changes, fan speed selection and display may be hidden
23. Auto off timer configurable in 10 minute increments (range 30-180 minutes)
24. Can be used to replace earlier versions of remote controllers

* Available for FXFQ_TVJU, FXUQ_PVJU, and FXZQ_TA indoor units
**Available for FXFQ_TVJU indoor units

SYSTEM DIAGRAM:



FACE DECAL OPTIONS:

Face decal options are used to hide unnecessary buttons:
1. The face decal is designed to adhere to the faceplate
2. Hidden buttons can be accessed by service personnel without removing the face decal due to its flexibility

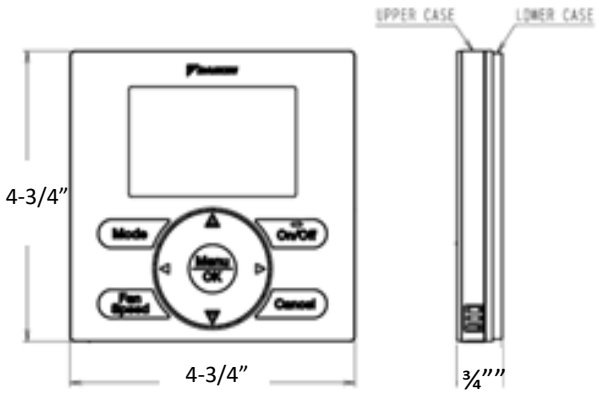
Submittal Data Sheet

BRC1E73 – Navigation Remote Controller

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

Used with	Single Setpoint mode			Dual Setpoint mode		
	BRC1E72RM	BRC1E72RF	BRC1E72RMF	BRC1E72RM2	BRC1E72RF2	BRC1E72RMF2
Model						
On/Off	X	X	X	X	X	X
Mode	X		X	X		X
Fan		X	X		X	X
Up, Down	X	X	X	X	X	X
Left, Right				X	X	X
Menu/Ok						
Cancel						

DIMENSIONS:



DOCUMENTATION:

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

- Installation Manual
- Operation Manual

Submittal Data Sheet

BRC1E73 – Navigation Remote Controller

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

- Submittal
- Guide Specifications
- Quick User Guide
- Field Setting Table

Submittal Data Sheet

DCM601A71 – intelligent Touch Manager

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

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, CXTQ, VAM*
Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ
Compatible with Single Zone/Multi Zone/SkyAir system indoor unit models:

- 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*

** The outdoor operational data is available for the following VRV IV outdoor unit models only: RXYQ_TATJU, RXYQ_TAYDU, REYQ_TATJU, REYQ_TAYDU, RXLQ_TATJU, RXLQ_TAYCU, RXLQ_TAYDU, RELQ_TATJU, RELQ_TAYCU, RELQ_TAYDU, REYQ_X, and RXYQ_X*

SPECIFICATIONS:

Model	DCM601A71	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	4 x 10 mA @ 16 VDC/ 4 x 1 pulse at 1 or 10 kWh

PRODUCT IMAGE:

iTM

iTM Plus Adaptor (Optional)

Submittal Data Sheet

DCM601A71 – intelligent Touch Manager

Project Name:	
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	at 100 ms interval	at 100 ms interval

OPTIONS:

- Software Options:
  - Power Proportional Distribution (PPD) Option (DCM002A71)(1)
  - 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
  - Digital Input (DEC101A51-US2) for monitoring of external equipment
  - Digital Input/Output (DEC102A51-US2) for controlling / monitoring of external equipment

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 a 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 and the PPD option.

(3) BACnet/IP Server Gateway option is not compatible with the VAM unit.

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
   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

Project Name:	
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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
   d. Tenant billing with PPD option (optional).
8. **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
9. **BACnet Server Gateway (Optional)**
   1. 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.
10. **History**
    a. All errors, operations, automatic controls and status changes are stored in history (up to 500,000 items).
11. **D-Net compatible (Service option)**
    a. Remote monitoring of VRV equipment status and reporting
12. **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)

Submittal Data Sheet

DCM601A71 – intelligent Touch Manager

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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.
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.

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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
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

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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
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 ***(General)***
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool) ***(General)***
Outdoor Unit Alarm Status	Monitors whether or not the outdoor unit is operating normally. ***(General)***
Defrost Mode	Monitors if the defrost mode is active. ***(General)***
Oil Return Mode	Monitors whether or not the outdoor unit is in oil return operation. ***(General)***
Electric Power	Monitors and displays the electric power (calculated). ***(General)***
Electric Current	Monitors and displays the electric current (calculated). ***(General)***
System Capacity Code	Monitors and displays the system capacity code. ***(General)***
Outdoor Air Temperature	Monitors and displays the outdoor air temperature. ***(General)***
M_Condensing Pressure	Monitors and displays the condensing pressure ***(Master Module)***
M_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Master Module)***
M_Condensing Temperature	Monitors and displays the condensing temperature ***(Master Module)***

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M_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Master Module)***
M_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Master Module)***
M_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Master Module)***
M_Fan Step	Monitors and displays the fan step ***(Master Module)***
M_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Master Module)***
M_EV position 2	Monitors and displays the position of the expansion valve2 ***(Master Module)***
M_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Master Module)***
M_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Master Module)***
M_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Master Module)***
M_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Master Module)***
M_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Master Module)***
M_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Master Module)***
M_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Master Module)***
M_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX ***(Master Module)***
M_Suction Temperature	Monitors and displays the suction temperature ***(Master Module)***
M_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Master Module)***
M_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Master Module)***
M_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Master Module)***
M_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Master Module)***
S1_Condensing Pressure	Monitors and displays the condensing pressure ***(Sub Module1)***
S1_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Sub Module1)***
S1_Condensing Temperature	Monitors and displays the condensing temperature ***(Sub Module1)***
S1_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Sub Module1)***
S1_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Sub Module1)***
S1_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Sub Module1)***
S1_Fan Step	Monitors and displays the fan step ***(Sub Module1)***
S1_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Sub Module1)***
S1_EV position 2	Monitors and displays the position of the expansion valve2 ***(Sub Module1)***
S1_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Sub Module1)***
S1_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Sub Module1)***
S1_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Sub Module1)***
S1_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Sub Module1)***
S1_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Sub Module1)***
S1_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Sub Module1)***

Submittal Data Sheet

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S1_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Sub Module1)***
S1_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX***(Sub Module1)***
S1_Suction Temperature	Monitors and displays the suction temperature ***(Sub Module1)***
S1_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Sub Module1)***
S1_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Sub Module1)***
S1_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Sub Module1)***
S1_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Sub Module1)***
S2_Condensing Pressure	Monitors and displays the condensing pressure ***(Sub Module2)***
S2_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Sub Module2)***
S2_Condensing Temperature	Monitors and displays the condensing temperature ***(Sub Module2)***
S2_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Sub Module2)***
S2_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Sub Module2)***
S2_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Sub Module2)***
S2_Fan Step	Monitors and displays the fan step ***(Sub Module2)***
S2_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Sub Module2)***
S2_EV position 2	Monitors and displays the position of the expansion valve2 ***(Sub Module2)***
S2_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Sub Module2)***
S2_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Sub Module2)***
S2_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Sub Module2)***
S2_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Sub Module2)***
S2_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Sub Module2)***
S2_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Sub Module2)***
S2_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Sub Module2)***
S2_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX***(Sub Module2)***
S2_Suction Temperature	Monitors and displays the suction temperature ***(Sub Module2)***
S2_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Sub Module2)***
S2_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Sub Module2)***
S2_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Sub Module2)***
S2_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Sub Module2)***

Submittal Data Sheet

DCM601A71 – intelligent Touch Manager

Project Name:	
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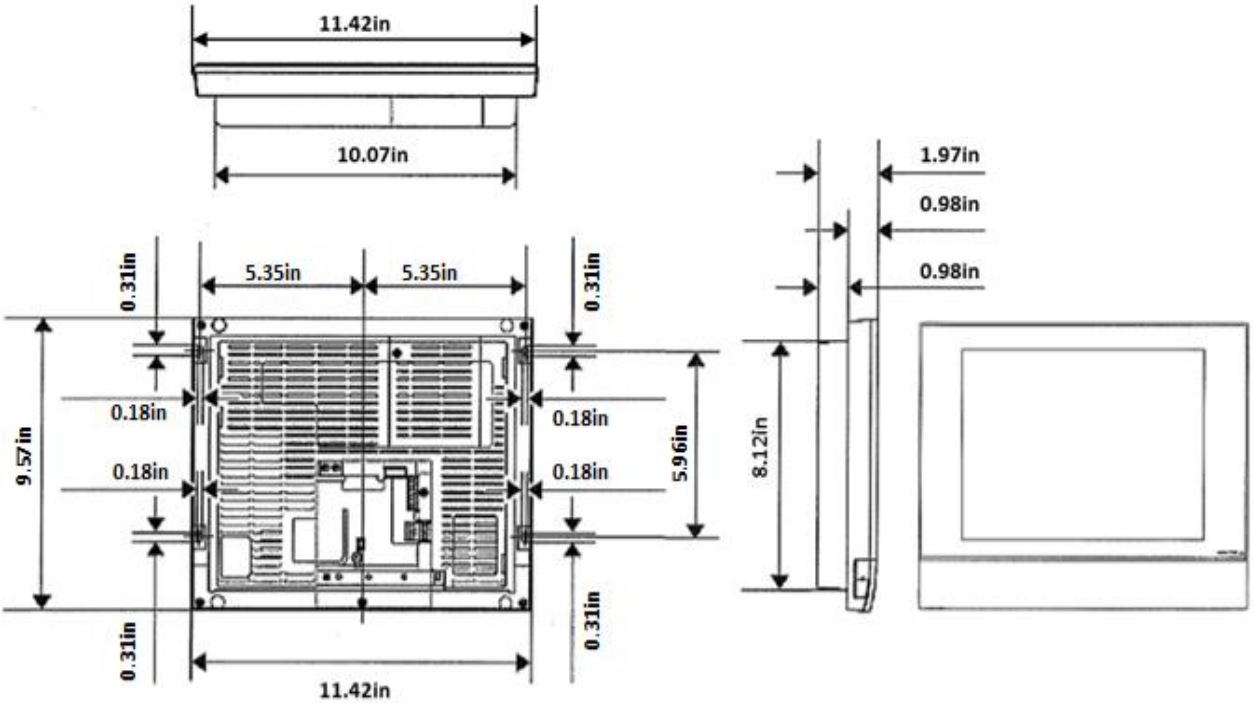
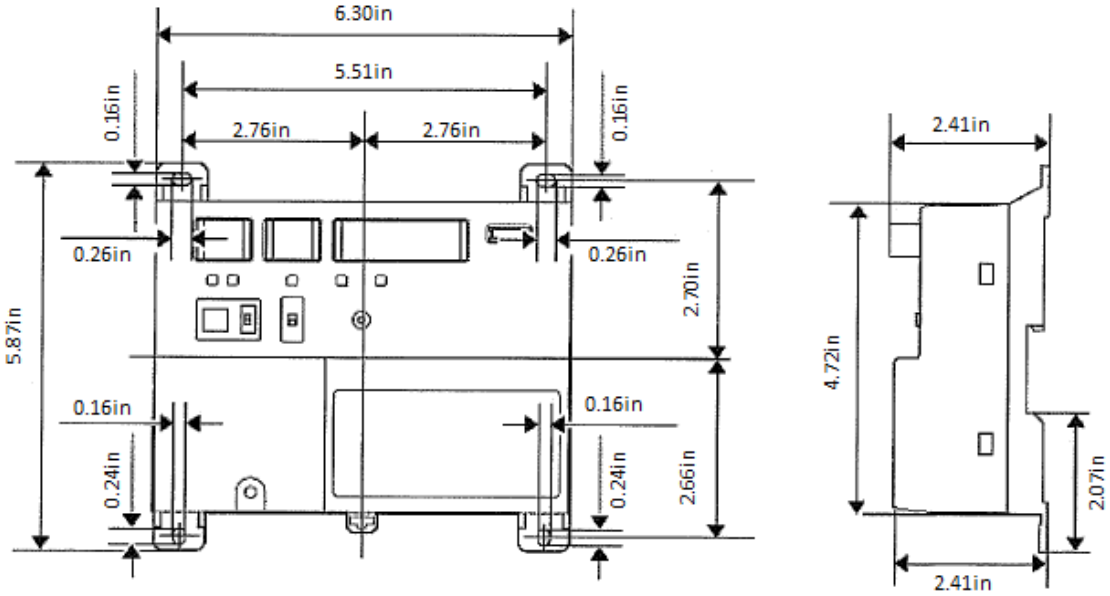
DIMENSIONS:

iTM:



iTM Plus Adaptor:



Submittal Data Sheet

DCM601A71 – intelligent Touch Manager

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DOCUMENTATION:

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

- Submittal
- Sales Brochure
- Guide Specs
- Installation Manual
- Operation Manual
- iTM D3 Operation Data Analysis Tool
- iTM BACnet Server Gateway
  - Design Guide
  - Sales Flyer
  - Quick User Guide
- iTM BACnet Client
  - Sales Flyer
  - iTM BACnet Client macro tools
- WAGO I/O Basic Kit and Modules
  - Submittal
  - Installation Manual
  - Sales Flyer

Submittal Data Sheet

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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, CXTQ, VAM*
Compatible with SkyAir indoor unit models: FAQ, FBQ, FCQ, FHQ, FTQ
Compatible with Single Zone/Multi Zone/SkyAir system indoor unit models:

- 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*

** The outdoor operational data is available for the following VRV IV outdoor unit models only: RXYQ_TATJU, RXYQ_TAYDU, REYQ_TATJU, REYQ_TAYDU, RXLQ_TATJU, RXLQ_TAYCU, RXLQ_TAYDU, RELQ_TATJU, RELQ_TAYCU, RELQ_TAYDU, REYQ_X, and RXYQ_X*

SPECIFICATIONS:

Model	DCM601A71	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	4 x 10 mA @ 16 VDC/ 4 x 1 pulse at 1 or 10 kWh

PRODUCT IMAGE:

iTM

iTM Plus Adaptor (Optional)

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	at 100 ms interval	at 100 ms interval

OPTIONS:

- Software Options:
  - Power Proportional Distribution (PPD) Option (DCM002A71)(1)
  - 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
  - Digital Input (DEC101A51-US2) for monitoring of external equipment
  - Digital Input/Output (DEC102A51-US2) for controlling / monitoring of external equipment

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 a 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 and the PPD option.

(3) BACnet/IP Server Gateway option is not compatible with the VAM unit.

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
   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

Project Name:	
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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
   d. Tenant billing with PPD option (optional).
8. **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
9. **BACnet Server Gateway (Optional)**
   1. 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.
10. **History**
    a. All errors, operations, automatic controls and status changes are stored in history (up to 500,000 items).
11. **D-Net compatible (Service option)**
    a. Remote monitoring of VRV equipment status and reporting
12. **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)

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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.
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.

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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
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

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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
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 ***(General)***
Operation Mode	Monitors and displays the operation mode (Cool, Heat, Fan or Heat &Cool) ***(General)***
Outdoor Unit Alarm Status	Monitors whether or not the outdoor unit is operating normally. ***(General)***
Defrost Mode	Monitors if the defrost mode is active. ***(General)***
Oil Return Mode	Monitors whether or not the outdoor unit is in oil return operation. ***(General)***
Electric Power	Monitors and displays the electric power (calculated). ***(General)***
Electric Current	Monitors and displays the electric current (calculated). ***(General)***
System Capacity Code	Monitors and displays the system capacity code. ***(General)***
Outdoor Air Temperature	Monitors and displays the outdoor air temperature. ***(General)***
M_Condensing Pressure	Monitors and displays the condensing pressure ***(Master Module)***
M_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Master Module)***
M_Condensing Temperature	Monitors and displays the condensing temperature ***(Master Module)***

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M_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Master Module)***
M_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Master Module)***
M_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Master Module)***
M_Fan Step	Monitors and displays the fan step ***(Master Module)***
M_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Master Module)***
M_EV position 2	Monitors and displays the position of the expansion valve2 ***(Master Module)***
M_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Master Module)***
M_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Master Module)***
M_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Master Module)***
M_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Master Module)***
M_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Master Module)***
M_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Master Module)***
M_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Master Module)***
M_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX ***(Master Module)***
M_Suction Temperature	Monitors and displays the suction temperature ***(Master Module)***
M_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Master Module)***
M_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Master Module)***
M_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Master Module)***
M_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Master Module)***
S1_Condensing Pressure	Monitors and displays the condensing pressure ***(Sub Module1)***
S1_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Sub Module1)***
S1_Condensing Temperature	Monitors and displays the condensing temperature ***(Sub Module1)***
S1_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Sub Module1)***
S1_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Sub Module1)***
S1_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Sub Module1)***
S1_Fan Step	Monitors and displays the fan step ***(Sub Module1)***
S1_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Sub Module1)***
S1_EV position 2	Monitors and displays the position of the expansion valve2 ***(Sub Module1)***
S1_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Sub Module1)***
S1_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Sub Module1)***
S1_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Sub Module1)***
S1_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Sub Module1)***
S1_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Sub Module1)***
S1_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Sub Module1)***

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S1_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Sub Module1)***
S1_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX***(Sub Module1)***
S1_Suction Temperature	Monitors and displays the suction temperature ***(Sub Module1)***
S1_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Sub Module1)***
S1_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Sub Module1)***
S1_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Sub Module1)***
S1_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Sub Module1)***
S2_Condensing Pressure	Monitors and displays the condensing pressure ***(Sub Module2)***
S2_Evaporating Pressure	Monitors and displays the evaporating pressure ***(Sub Module2)***
S2_Condensing Temperature	Monitors and displays the condensing temperature ***(Sub Module2)***
S2_Evaporating Temperature	Monitors and displays the evaporating temperature ***(Sub Module2)***
S2_Inverter Compressor 1 Speed	Monitors and displays the speed of the inverter compressor1 ***(Sub Module2)***
S2_Inverter Compressor 2 Speed	Monitors and displays the speed of the inverter compressor2 ***(Sub Module2)***
S2_Fan Step	Monitors and displays the fan step ***(Sub Module2)***
S2_EV Position 1	Monitors and displays the position of the expansion valve1 ***(Sub Module2)***
S2_EV position 2	Monitors and displays the position of the expansion valve2 ***(Sub Module2)***
S2_Hot Gas Temperature (Compressor 1)	Monitors and displays the hot gas temperature of the compressor1 ***(Sub Module2)***
S2_Hot Gas Temperature (Compressor 2)	Monitors and displays the hot gas temperature of the compressor2 ***(Sub Module2)***
S2_Liquid Pipe Temperature	Monitors and displays the liquid pipe temperature ***(Sub Module2)***
S2_Liquid Pipe Temperature (HX Upper)	Monitors and displays the liquid pipe temperature for the upper HX ***(Sub Module2)***
S2_Liquid Pipe Temperature (HX Lower)	Monitors and displays the liquid pipe temperature for the lower HX ***(Sub Module2)***
S2_Liquid Pipe Temperature (De-Icer)	Monitors and displays the liquid pipe temperature for the de-icer ***(Sub Module2)***
S2_Gas Pipe Temperature (HX Upper)	Monitors and displays the gas pipe temperature for the upper HX ***(Sub Module2)***
S2_Gas Pipe Temperature (HX Lower)	Monitors and displays the gas pipe temperature for the lower HX***(Sub Module2)***
S2_Suction Temperature	Monitors and displays the suction temperature ***(Sub Module2)***
S2_Compressor Suction Temperature	Monitors and displays the compressor's suction temperature ***(Sub Module2)***
S2_Subcool Inlet Temperature	Monitors and displays the subcool inlet temperature ***(Sub Module2)***
S2_Subcool Outlet temperature	Monitors and displays the subcool outlet temperature ***(Sub Module2)***
S2_Subcool EV Position	Monitors and displays the subcool expansion valve position ***(Sub Module2)***

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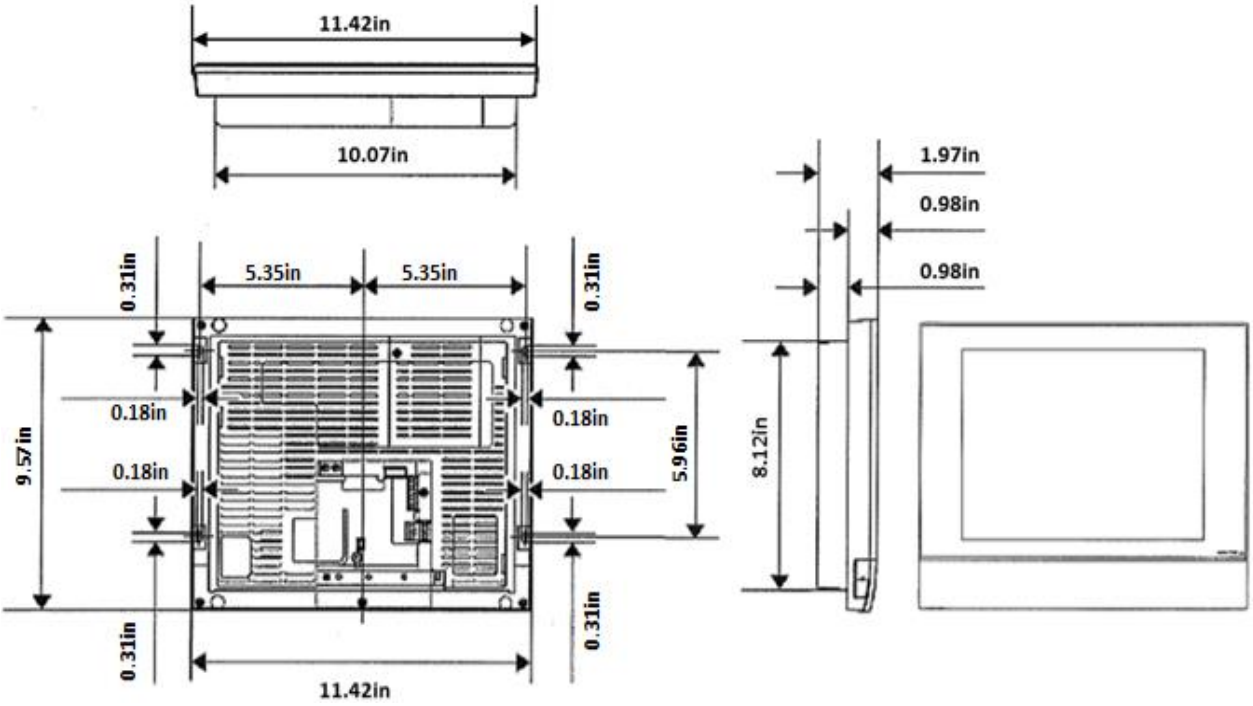
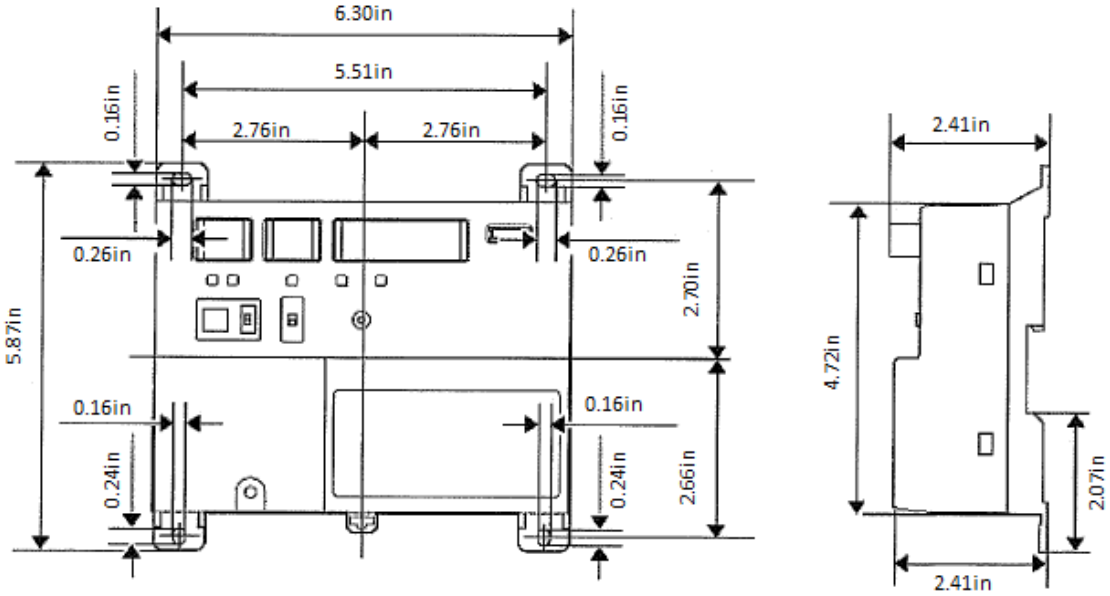
DIMENSIONS:

iTM:



iTM Plus Adaptor:



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DOCUMENTATION:

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

- Submittal
- Sales Brochure
- Guide Specs
- Installation Manual
- Operation Manual
- iTM D3 Operation Data Analysis Tool
- iTM BACnet Server Gateway
  - Design Guide
  - Sales Flyer
  - Quick User Guide
- iTM BACnet Client
  - Sales Flyer
  - iTM BACnet Client macro tools
- WAGO I/O Basic Kit and Modules
  - Submittal
  - Installation Manual
  - Sales Flyer

Submittal Data Sheet

DACA-CP1-1

Mini Univolt 100-250 Pump Kit

DACA-CP1-1

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 - 6.5”
Pump Width - 1.125”
Pump Height - 1.125”
Capacity - 3.2 GPH @ 0’ Head
Max BTUs - 30000
Max Head in Feet - 33
Max Temperature - 104F
Max Suction Lift - 3’.3”
Sound Level - 25dB(A)
Dry Contact Rating - 3A NC
Voltage - 100-250
Amperes - .15 MAX
Watts - 16
Remote Reservoir - Y
Plenum Rated - N
Cable Length - 6’

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

(Sec. II) Ordering Information:

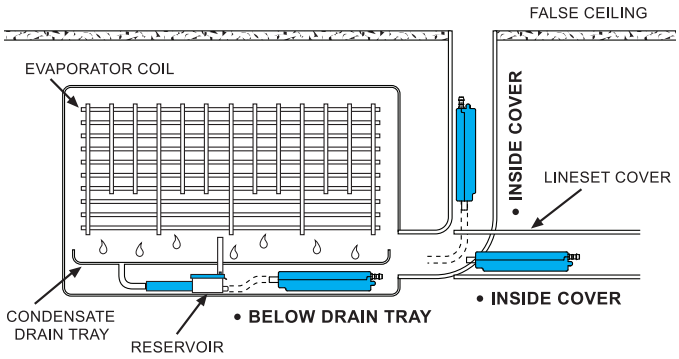
Product Code - DACA-CP1-1
Model - DACA-CP1-1
Carton Qty - 1
Carton Weight - 1.5

(Sec. III) Carton Contents:

Pump Assembly
Inline Reservoir
8”x5/8” i.d. Inlet Tube
5’x1/4” i.d. Vinyl Discharge Tube
Installation Manual
6”x1/4” i.d. Vinyl Breather Tube
Drain Hose Adaptor
Inline Fuse
Cable Ties (6)
Self Adhesive Velcro Strips (2)
Anti-siphon (1)

(Fig. I) Product Image:

(Fig. II) Typical Pump Locations:



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