Submittal # 82871	APPROVAL REQUIRED

Project 22404896-MECH-1- Neshama Hospice - 3 Cadillac
Leader Nevin Wong
Job Site Neshama Hospice
Submission Date 2024-11-05
Sold To CONSULT MECH
Submitted By Rohan Syal

Contacts

Role	Customer	Our Rep
Mechanical Contractor	Con-Sult Mechanical Inc.*	Nevin Wong
Mechanical Contractor	Con-Sult Mechanical Inc.*	Nevin Wong
Designer	Sustainglobe Ltd	John Samson

Deliverables

Track #	281371	281376	281377
Tag	AC/CU-3,4, AC/CU-1,2, AC/CU-5	BAFFLE-1, BAFFLE-1	BAS-1
Description	Daikin Split System	Baffle	DMS BACnet
Quantity	5	5	1
Manufacturer	Daikin Commercial	Daikin Commercial	Daikin Commercial
Revision #	0	0	0

Track #	281378	281375	281373
Tag	INTERFACE-1,2,3,4,5	LOW-1	PUMP-1
Description	Interface Adaptor	Low Ambient Kit	Condensate Pumps
Quantity	5	2	5
Manufacturer	Daikin Commercial	Daikin Commercial	Daikin Commercial
Revision #	0	0	0

Track #	281374	281372	
Tag	STAND-1, STAND-1	TSTAT-1, TSAT-2	
Description	Quicksling Stand	Controls	
Quantity	5	5	
Manufacturer	Daikin Commercial	Daikin Commercial	
Revision #	0	0	

Attention:

1) HTS will provide equipment in accordance with the attached shop drawings.
2) Upon approved submittal and customer release, HTS will release equipment to fabrication per the published lead times. Any storage fees associated with project schedule changes will be the responsibility of the purchaser.
3) HTS can provide freight and logistics to the purchaser as an added benefit of doing business with HTS. When freight is received by the purchaser, any noticeable damage must be recorded. Otherwise, HTS is not responsible for subsequent damage claims.

Approval Stamps

SUBMITTAL DATA
APPROVAL REQUIRED

HTS Toronto
115 Norfinch Drive
Toronto, ON M3N 1W8
T 416.661.3400
F 416.661.0100
ontario.htseng.com

APPROVAL STAMPS

Electrical Details:
Outdoor unit power: 208-230/1/60
Indoor unit power: 208-230/1/60
Outdoor unit powers indoor unit

Controls:
Indoor unit c/w wired remote controller (shipped loose for field installation)
Indoor unit c/w KRP928 adapter card to enable BAS integration
- **Mounting and wiring by others**

System c/w BACnet Gateway for BAS integration
- **Contractor to mount Gateway and bring 24 VAC power and Daikin D-III network**
- **BAS contractor to connect to IP Gateway and program front end as per sequence of operation**
- **BAS contractor to provide IP address and instance number prior to commissioning by DXS**
- **Mounting and wiring by others**

Condensate Pumps:
AC-1 to AC-5 Indoor units c/w condensate pumps (shipped loose for field installation)

Filters:
AC-1 to AC-5 Indoor units c/w integral washable filters

Condensing Unit Elevation:
CU-1 to CU-5 Condensing units c/w support frames for 18" elevation above roof level

Low Ambient Kit:
CU-1/2/3/4/5 c/w wind baffle (shipped loose for field installation)
CU-1/2 Low ambient kit for cooling operation down to -40 F

DX Piping Details:
VRV System c/w REFNET Y Joints for refrigeration piping installation (shipped loose for field install)

Contractor to confirm pipe lengths with DXS prior to installation. Pipe measurements shown in the shop drawings are subject to change based on site conditions.

Upon installation, contractor to provide DXS with as-built piping schematic for proper calculation of field refrigerant charge.

All systems shall display appropriate Ozone Depletion Prevention (ODP) tags prior to commissioning. VRV manufacturer cannot commission any system not displaying proper ODP tag.

Systems exceeding 5-tons require TSSA registration and inspection.

NOTE: EQUIPMENT WILL NOT BE RELEASED FOR PRODUCTION UNTIL APPROVED SHOP DRAWINGS ARE RECEIVED BY HTS ENGINEERING. PRODUCTION TIMING AND SHIPPING INFORMATION CAN NOT BE DETERMINED UNTIL APPROVED DRAWINGS ARE RECEIVED. RETURN OF APPROVED DRAWINGS CONSTITUTES ACCEPTANCE OF THE SPECIFIED EQUIPMENT.

SUBMITTAL DATA
APPROVAL REQUIRED

HTS Toronto
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VRV Installation Key Points

1. Contractor to ensure that air cooled VRV condensing units are elevated a minimum of 18”.

2. Contractor to contact DXS with any changes to pipe lengths or locations and receive revised piping & wiring diagrams which will be used for sizing pipe diameters and calculating extra refrigerant charge.

3. Contractor to confirm final location of condensing units.

4. Contractor to use clamps and installation practices which allow the pipes to expand & contract freely. Contractor to determine the use of expansion joints based on regular refrigeration practices to ensure piping does not rupture.

5. Contractor to schedule a site meeting with DXS technician prior to beginning piping installation. DXS may request to schedule a site visit to verify installation methods are in accordance with the Daikin requirements.

6. Control wiring is 18-AWG, 2 wire stranded, non-shielded for the entire system (control wiring between the fan coils & stats). No exception.

7. Contractor to pressure test system with the following procedure. 150 PSI test for 3 minutes, then 325 PSI for 3 minutes, then 550 PSI for 24 hours. Following the pressure test the system is to be vacuumed/dehydrated to 500 microns and held in a vacuum for 1 hour.

8. Contractor to insulate both suction and liquid refrigerant lines with armaflex insulation. 1/2" wall insulation for indoor piping, 3/4" wall diameter insulation for outdoor piping.

9. Refrigerant charge is to be calculated by DXS as per the actual installed pipework.

10. Condensate piping must be 3/4" ID, maximum lift noted in installation manual.

Schedule Compliance

EQUIPMENT SCHEDULE

NO.	EQUIPMENT	MAKE AND MODEL	DESCRIPTION
'AC-1' 'AC-CU-1' 'AC-2' 'AC-CU-2'	SPLIT A/C UNIT FOR ELEVATOR ROOM & COMM. ROOM	DAIKIN MODEL ~~FTKC12AXVJU~~ ~~RXC12AXVJU~~ FTKF12AXVJU/ RKF12AXVJU	NOMINAL COOLING = 1 TON EVAPORATOR UNIT 10,900 BTUH COOLING CAPACITY, 19 SEER, 456CFM, C/W MOUNTING BRACKET, WIRED THERMOSTAT, INTERFACE ADAPTOR FOR DIII-NET, 1" COPPER CONDENSATE DRAIN TERMINATE HUB DRAIN AND INTEGRAL CONDENSATE PUMP, DIMENSIONS = ~~287mm(H) x 780mm(W) x 250mm(D)~~, HEIGHT = 10 KG 279 762 235 9.15 CONDENSING UNIT R-32 R-410A REFRIGERANT, 208V/1Ø, MAX. FUSE = 15 A, M.C.A. = ~~7.8~~ A 27 DIMENSIONS = ~~550mm(H) x 673mm(W) x 285mm(D)~~, HEIGHT = ~~34~~ KG ~~COMPLETED WITH HEATHERPROOF DISCONNECT~~, FIELD SETTINGS FOR EXTENDED OPERATING RANGE UP TO -4°F, ~~WIND BAFFLE, PATIO STONE AND RIGID INSULATION~~, POWER TO INDOOR UNIT SUPPLIED BY OUTDOOR UNIT. Condensate pump shipped loose for field installation By others
'AC-3' 'AC-CU-3' 'AC-4' 'AC-CU-4'	SPLIT HEAT PUMP UNIT	DAIKIN MODEL ~~FTKC24LVJU~~ ~~RXC24LVJU~~ FTXF24AXVJU/ RXF24AXVJU	NOMINAL COOLING = 2 TON, HEATING = 25,600 BTUH EVAPORATOR UNIT 24,000 BTUH COOLING CAPACITY, COP = ~~3.27~~, EER = ~~12.5~~; SEER = 10.6, C/W MOUNTING BRACKET, WIRED THERMOSTAT, INTERFACE ADAPTOR FOR DIII-NET, 1" COPPER CONDENSATE DRAIN TERMINATE HUB DRAIN AND ~~INTEGRAL~~ CONDENSATE PUMP. 3.3 12 CONDENSING UNIT 16.3 R-32 R-410A REFRIGERANT, 208V/1Ø, MAX. FUSE = 20 A, M.C.A. = ~~11.5~~ A DIMENSIONS = ~~715mm(H) x 800mm(L) x 314mm(W)~~, HEIGHT = ~~72~~ KG 696mm x 933mm x 350mm, 46 kg ~~COMPLETED WITH HEATHERPROOF DISCONNECT~~, HANGING BRACKET AND ~~VIBRATION ISOLATOR~~, POWER TO INDOOR UNIT SUPPLIED BY OUTDOOR UNIT. Condensate pump shipped loose for field installation By others
'AC-5' 'AC-CU-5'	SPLIT A/C UNIT FOR FAMILY/ ACTIVITY ROOM	DAIKIN MODEL ~~FTKS36LVJU~~ ~~RXS36LVJU~~ FTX36WVJU9 / RX36WMVJU9	NOMINAL COOLING = 3 TON 33,200 EVAPORATOR UNIT ~~34,400~~ BTUH COOLING CAPACITY, 19.90 SEER, 915CFM, C/W MOUNTING BRACKET, WIRED THERMOSTAT, INTERFACE ADAPTOR FOR DIII-NET, 1" COPPER CONDENSATE DRAIN TERMINATE HUB DRAIN AND ~~INTEGRAL~~ CONDENSATE PUMP. DIMENSIONS = 342mm(H) x 1200mm(W) x 254mm(D), HEIGHT = 17.2 KG 18.6 CONDENSING UNIT R-410A REFRIGERANT, 208V/1Ø, MAX. FUSE = 20 A, M.C.A. = 18 A DIMENSIONS = 735mm(H) x 870mm(W) x 320mm(D), HEIGHT = 60 KG ~~COMPLETED WITH REMOTE CONTROLLER~~, INTERFACE ADAPTOR (VIII NETIRA), BACNET CARD TO BE CONTROLLED BY BAS, ~~HEATHERPROOF DISCONNECT~~, FIELD SETTINGS FOR EXTENDED OPERATING RANGE UP TO -4°F, ~~WIND BAFFLE, PATIO STONE AND RIGID INSULATION~~, POWER TO INDOOR UNIT SUPPLIED BY OUTDOOR UNIT. Condensate pump shipped loose for field installation By others

Model numbers updated per latest Daikin generation

NOTE.
1.) MECHANICAL CONTRACTOR TO PROVIDE STARTER, TIMER DELAY SWITCH, REVERSE ACTION THERMOSTAT OF MECHANICAL EQUIPMENT AND ELECTRICAL CONTRACTOR TO INSTALL.
2.) FAN SWITCH, THERMOSTAT, CONTROL PANEL LOCATION SHOULD COORDINATE WITH LIGHT SWITCH, FURNITURE LAYOUT ON SITE.
3.) EQUIPMENT INSTALLATION SHALL BE ACCORDANCE TO MANUFACTURER'S RECOMMENDATION.
4.) PROVIDE ALL REQUIRED CONTROL WIRING, POWER WIRING REQUIRED AND INSULATED CONDENSATION DRAIN PIPING FOR A COMPLETE INSTALLATION.
5.) PROVIDE CONCRETE PAD FOR ALL EQUIPMENT SIT ON SLAB.
6.) COLOR AND FINISHING OF DIFFUSER AND GRILLE SHALL BE SELECTED BY ARCHITECT/INTERIOR DESIGNER.

No.	Issuance	Date
6.	ISSUED FOR ADDENDUM M-1	JUL.03,2024
5.	ISSUED FOR TENDER	JUN.06,2024
4.	COORDINATION	MAY24,2024
3.	BUILDING PERMIT	APR.29,2024
2.	MOH 90% SUBMISSION	FEB.29,2024
1.	BUILD. PERMIT-CLIENT REVIEW	FEB.29,2024

Consultants

SustainGlobe Ltd. Consulting Engineers
28 Fulton Way, Unit 8-100, Richmond Hill, Ontario L4B 1J5
Tel: (905) 762-1001

Seals

Project
NESHAMA HOSPICE
3 CADILLAC AVENUE
NORTH YORK, ON M3H 1R9

Sheet Title
EQUIPMENT SCHEDULES & PIPING SCHEMATIC – MECHANICAL

Date	Drawn
AUG. 2019	
Scale: AS NOTED	Sheet: M-15
Job No.: 18031	

Split Systems
Piping & Wiring Diagrams

Split Piping Diagrams

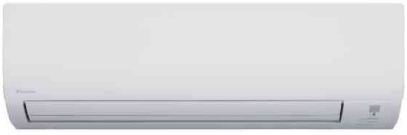
NOTE: PIPING LENGTHS ARE ESTIMATES BASED ON TENDER DRAWINGS, LENGTHS AND DIAMETERS MAY CHANGE DUE TO SITE CONDITIONS

Piping CU-1/2

CU-1/2
RKF12AXVJU

Max. 66.0 ft

1/4 x 3/8"



AC-1/2
FTKF12AXVJU

All piping to be as per TSSA. Contractor to provide TSSA refrigerant piping certificate B31.5 prior to commissioning by VRV manufacturer
All systems shall display appropriate ODP tags prior to commissioning by VRV manufacturer.
Exposed outdoor insulation shall be protected by aluminum, sheet metal, painted canvas, plastic cover, or painted with an approved UV coating.
Isolation valves (if shown below) shall be bi-flow self seating valves rated for R-410A with operating pressures up to 650 PSI. Brass shrader connections shall be located on valve body
Contractor to use clamps, expansion joints and installation practices which allows the pipes to expand and contract freely.
All pipe lengths and sizes below are estimates. Contractor to contact VRV manufacturer prior to purchase and install of refrigerant piping to confirm actual piping lengths and sizes.

Insulation:
- For indoor piping : 1/2" wall diameter Armaflex
- For outdoor piping : 3/4" wall diameter Armaflex

Split Piping Diagrams

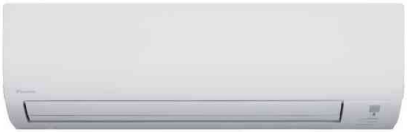
Piping CU-3/4

NOTE: PIPING LENGTHS ARE ESTI MATES BASED ON TENDER DRAWINGS, LENGTHS AND DIAMETERS MAY CHANGE DUE TO SITE CONDITIONS

CU-3/4
RXF24AXVJU

Max. 99.0 ft

1/4 x 5/8"



AC-3/4
FTXF24AXVJU

All piping to be as per TSSA. Contractor to provide TSSA refrigerant piping certificate B31.5 prior to commissioning by VRV manufacturer
All systems shall display appropriate ODP tags prior to commissioning by VRV manufacturer.
Exposed outdoor insulation shall be protected by aluminum, sheet metal, painted canvas, plastic cover, or painted with an approved UV coating.
Isolation valves (if shown below) shall be bi-flow self seating valves rated for R-410A with operating pressures up to 650 PSI. Brass shrader connections shall be located on valve body
Contractor to use clamps, expansion joints and installation practices which allows the pipes to expand and contract freely.
All pipe lengths and sizes below are estimates. Contractor to contact VRV manufacturer prior to purchase and install of refrigerant piping to confirm actual piping lengths and sizes.

Insulation:
- For indoor piping : 1/2" wall diameter Armaflex
- For outdoor piping : 3/4" wall diameter Armaflex

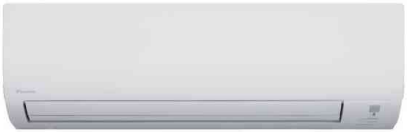
Split Piping Diagrams

Piping CU-5

NOTE: PIPING LENGTHS ARE ESTIMATES BASED ON TENDER DRAWINGS, LENGTHS AND DIAMETERS MAY CHANGE DUE TO SITE CONDITIONS

CU-5
RX36WMVJU9

Max. 99.0 ft
1/4 x 5/8"



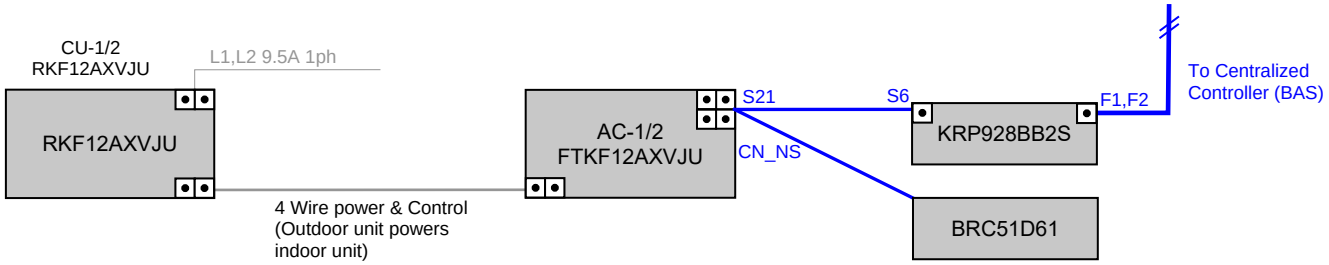
AC-5
FTX36WVJU9

All piping to be as per TSSA. Contractor to provide TSSA refrigerant piping certificate B31.5 prior to commissioning by VRV manufacturer
All systems shall display appropriate ODP tags prior to commissioning by VRV manufacturer.
Exposed outdoor insulation shall be protected by aluminum, sheet metal, painted canvas, plastic cover, or painted with an approved UV coating.
Isolation valves (if shown below) shall be bi-flow self seating valves rated for R-410A with operating pressures up to 650 PSI. Brass shrader connections shall be located on valve body
Contractor to use clamps, expansion joints and installation practices which allows the pipes to expand and contract freely.
All pipe lengths and sizes below are estimates. Contractor to contact VRV manufacturer prior to purchase and install of refrigerant piping to confirm actual piping lengths and sizes.

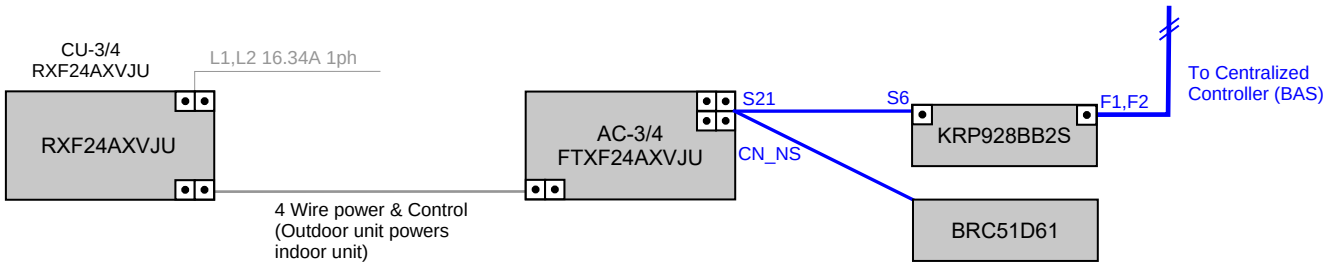
Insulation:
- For indoor piping : 1/2" wall diameter Armaflex
- For outdoor piping : 3/4" wall diameter Armaflex

Split Wiring Diagrams

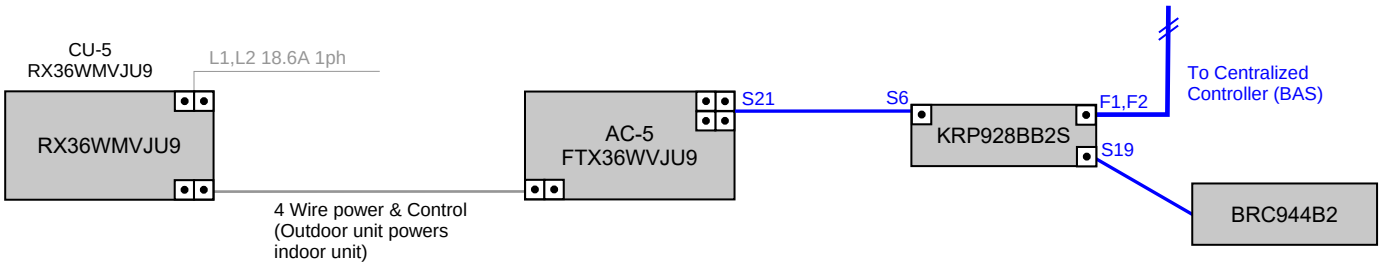
Wiring CU-1/2



Wiring CU-3/4



Wiring CU-5



Div 15 : Low Voltage control wiring 18 AWG 2-conductor stranded non-shielded (unless otherwise noted)

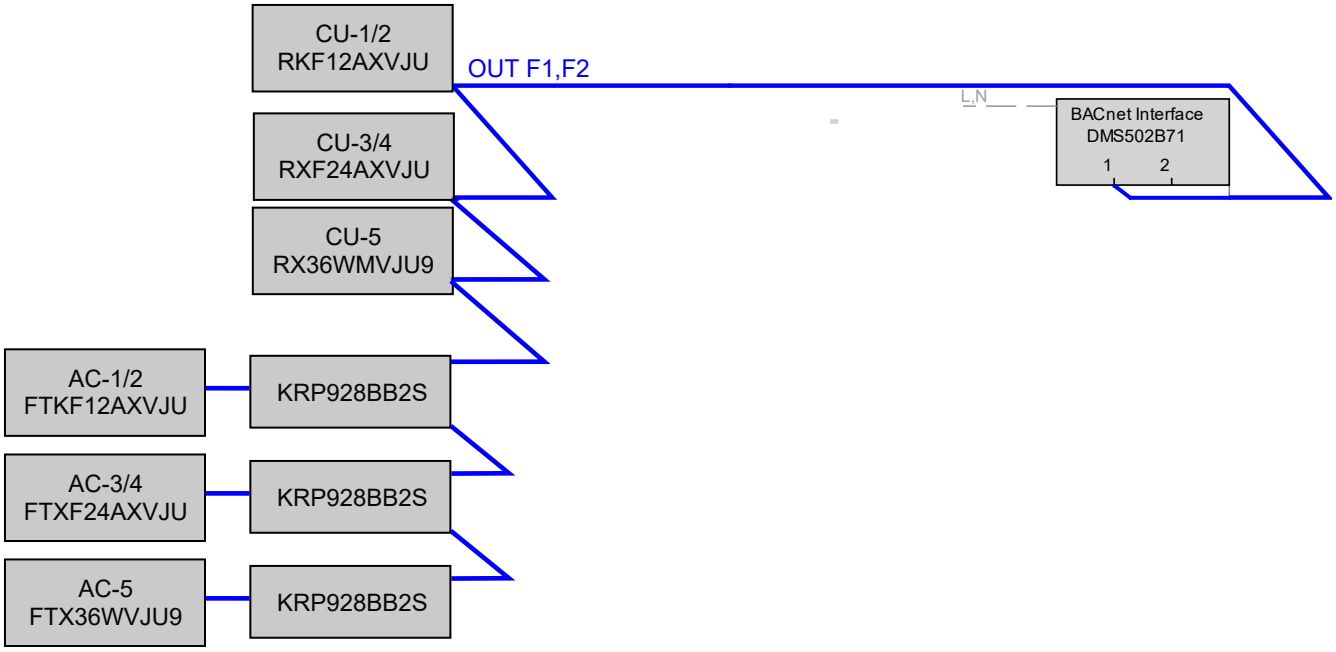
Div 16 : Electrical power wiring

Notes:
- Individual disconnects are required for each piece of equipment
- Disconnect switches not provided by DXS/HTS, to be supplied and installed by others

Centralized Controls

Controller wiring diagrams

Control Group



Split System Technical Details

Daikin Split System

Mini Splits

AC/CU - 3, 4	FTXF24AXVJU / RXF24AXVJU	(2)
AC/CU - 1, 2	FTKF12AXVJU / RKF12AXVJU	(2)
AC/CU - 5	FTX36WVJU9 / RX36WMVJU9	(1)

Submittal Data Sheet

R-32 --- 2-Ton Wall Mounted Daikin OTERRA Heat Pump System

FTXF24AXVJU-RXF24AXVJU

Tag: AC/CU-3/4

FEATURES

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

BENEFITS

- Precharged Line set - 33 ft
- Cooling Operation Range - 50-115F
- Heating Operation Range - 5-65F
- 12 Year Parts and Compressor Registered Residential Warranty
- 5 year Parts and Compressor Commercial Warranty
- R-32 Easy, Proven, Efficient, Available

INDOOR UNIT

OUTDOOR UNIT

Submittal Data Sheet

R-32 --- 2-Ton Wall Mounted Daikin OTERRA Heat Pump System

FTXF24AXVJU-RXF24AXVJU

SYSTEM PERFORMANCE

Indoor Unit Model No.	FTXF24AXVJU	Indoor Unit Name:	R-32 --- 2- Ton, Heat Pump, Wall Mounted IDU Daikin OTERRA
Outdoor Unit Model No.	RXF24AXVJU	Outdoor Unit Name:	R-32 --- 2 Ton, Heatpump, Ductless, ODU Daikin OTERRA
Rated Cooling Capacity (Btu/hr):	22,400	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):	16,360	Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	26,400 / 7,000	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):	6.570	Heating Input Power (kW):	6.92
SEER2 (Non-Ducted/Ducted):	21.00 /	HSPF2 (Non-Ducted/Ducted):	9.1 /
EER2 (Non-Ducted/Ducted):	12.00 /	Heating COP (Non-Ducted/Ducted):	3.3 /
Rated Heating Capacity (Btu/hr):	23,600	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Max/Min Heating Capacity (Btu/hr):	28,600 / 6,200		

SYSTEM DETAILS

Refrigerant Type:	R-32	Cooling Operation Range (°F DB):	50 - 122
Holding Refrigerant Charge (lbs):	3.31	Heating Operation Range (°F WB):	5 - 65
Additional Charge (oz/ft):	0.18	Max. Pipe Length (Vertical) (ft):	66
Pre-charge Piping (Length) (ft):	33	Cooling Range w/Baffle (°F DB):	-4 - 122
Max. Pipe Length (Total) (ft):	99		
Max Height Separation (Ind to Ind ft):	0		

Submittal Data Sheet

R-32 --- 2-Ton Wall Mounted Daikin OTERRA Heat Pump System

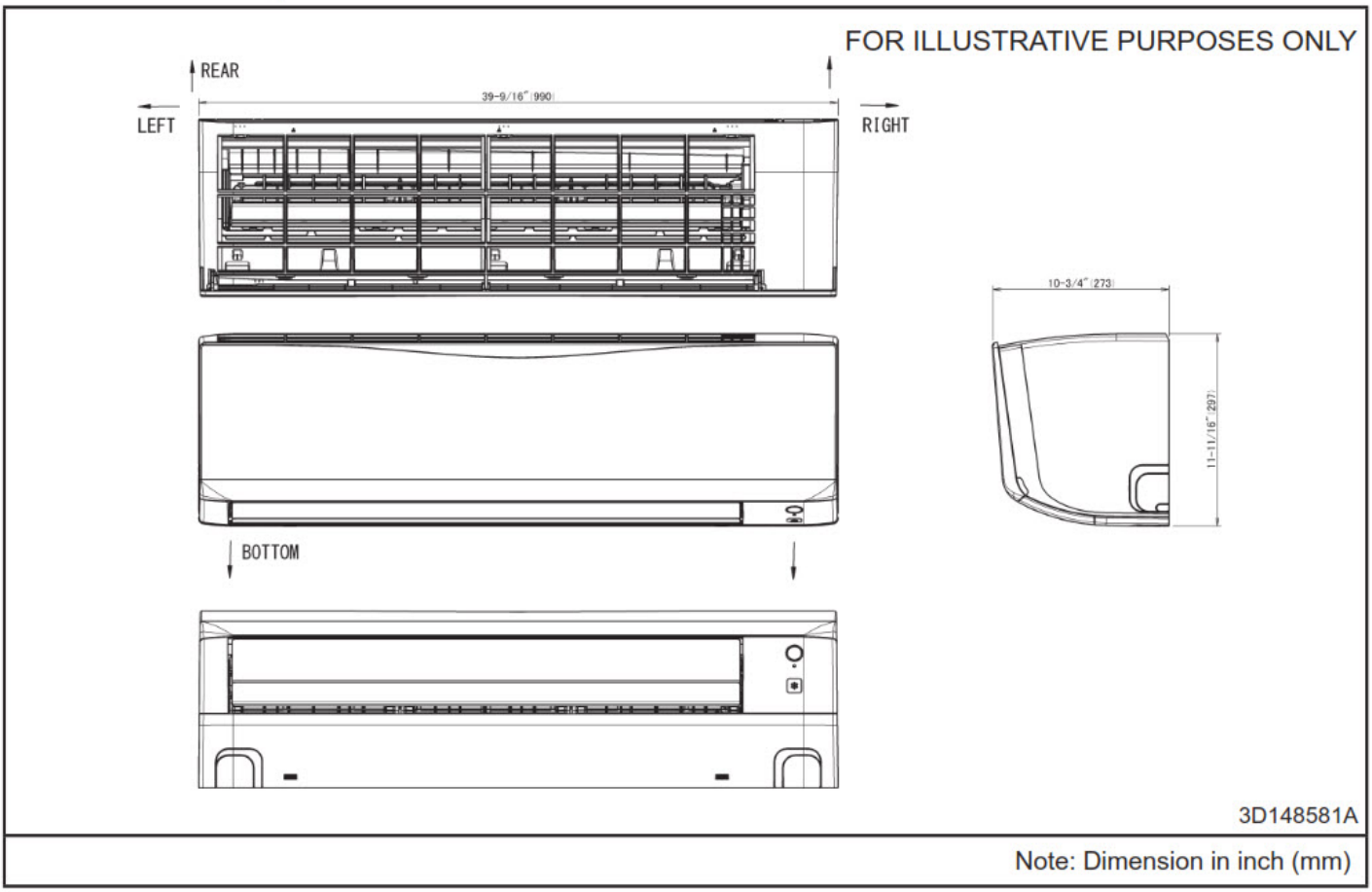
FTXF24AXVJU-RXF24AXVJU

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/M/L/SL) (CFM):	754/716/605/467/395
Power Supply Connections:	L1, L2, L3, Ground	Moisture Removal (Gal/hr):	0.9
Min. Circuit Amps MCA (A):		Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):		Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-11/16 x 39-9/16 x 10-3/4	Condensate Connection (inch):	5/8
Net Weight (lb):	30.5	Sound Pressure (H/M/L/SL) (dBA):	53/45/39/34
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT

Model : FTKF18/24A, FTXF18/24A



Submittal Data Sheet

R-32 --- 2-Ton Wall Mounted Daikin OTERRA Heat Pump System

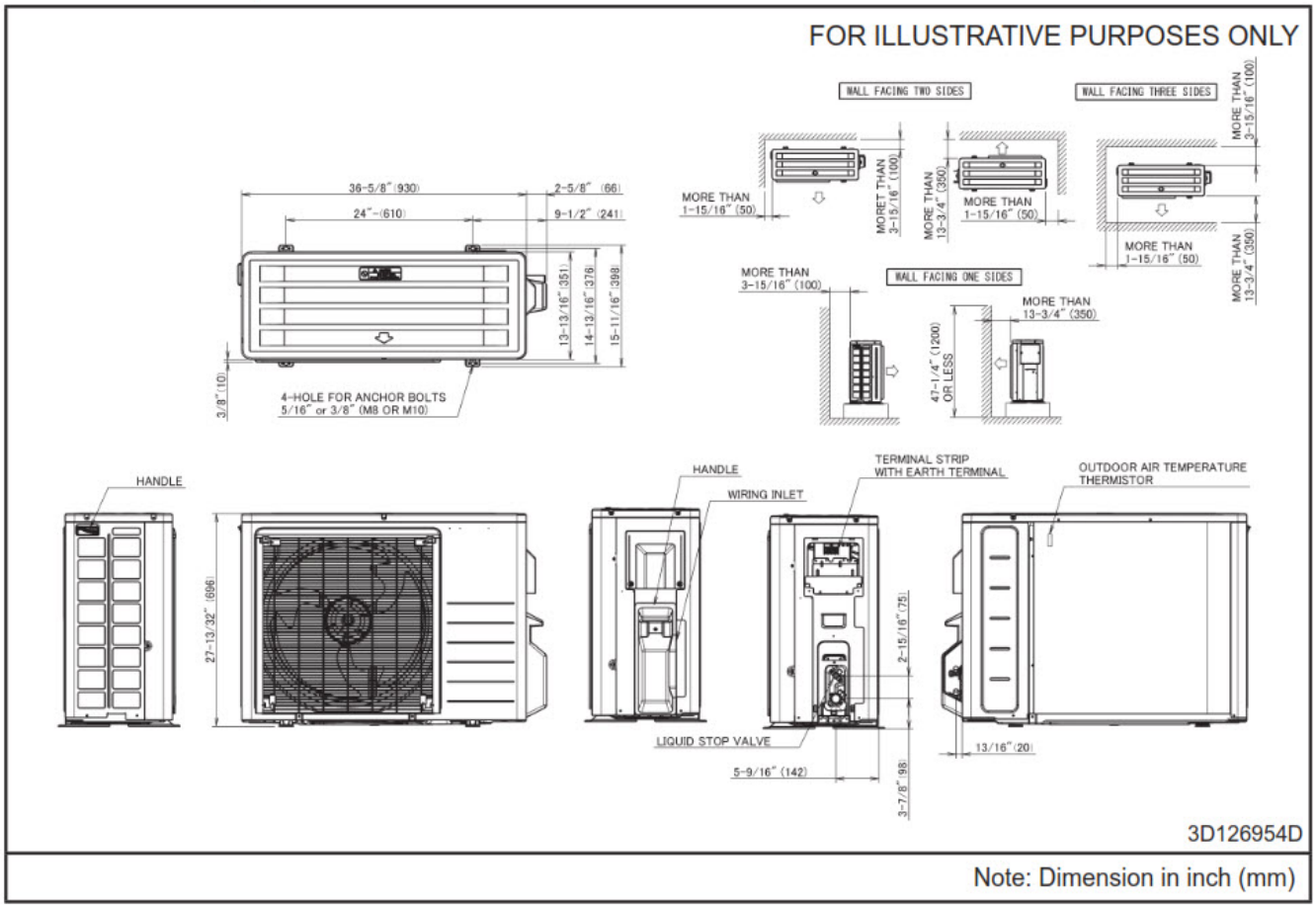
FTXF24AXVJU-RXF24AXVJU

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3, Ground	Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	16.34	Airflow Rate (H) (CFM):	1879
Max Overcurrent Protection (MOP) (A):	20	Gas Pipe Connection (inch):	5/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):		Sound Pressure (H) (dBA):	55
Dimensions (HxWxD) (in):	27-13/32 x 36-5/8 x 13-13/16	Sound Power Level (dBA):	
Net Weight (lb):	101		

DIMENSIONAL DRAWING - OUTDOOR UNIT

Model : RKF18/24A, RXF18/24A



INDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)	No
AZAI6WSPDKC	DKN Plus Interface	No
BRC51D61	Wired Remote Controller Kit	No
DACA-CP1-1	Mini Aqua Condensate Pump	No
DACA-CP4-1	MINI WHITE PUMP KIT 100-250V	No
DTST-LTE-LA-A	Daikin One Lite (with Translation Adaptor for S21 only)	No
DTST-ONE-ADA-A	Daikin One+ Smart Thermostat for VRV, SkyAir, Single- and Multi-Zone System	No
DTST-TOU-ADA-A	Daikin One Touch Smart Thermostat (with Translation Adaptor for S21 and P1P2)	No
KRP928BB2S	RA Interface Adaptor for DIII-Net -	No

OUTDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
DACA-WB-3	Powder-Coated Wall-Mounted Bracket	No
KEH063A4EA	Bml LRg Drain Pan Heater Rev A	No
KPW063B4E	Air Adjustment Grille	No

Submittal Data Sheet

R-32 --- 1-Ton Wall Mounted Daikin OTERRA Cooling Only System

FTKF12AXVJU-RKF12AXVJU

Tag: AC/CU-1/2

FEATURES

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

BENEFITS

- R-32 Easy, Proven, Efficient, Available
- Precharged for up to 33 ft
- Cooling Operation Range - 50-118F for 9K/12K 50-122F for 18/24K
- 12 Year Parts and Compressor Registered Residential Warranty
- 5 year Parts and Compressor Commercial Warranty
- Cooling down to -4F for Facilities

INDOOR UNIT

OUTDOOR UNIT

Submittal Data Sheet

R-32 --- 1-Ton Wall Mounted Daikin OTERRA Cooling Only System

FTKF12AXVJU-RKF12AXVJU

SYSTEM PERFORMANCE

Indoor Unit Model No.	FTKF12AXVJU	Indoor Unit Name:	R-32 Daikin OTERRA 1 Ton AC only mini split indoor unit
Outdoor Unit Model No.	RKF12AXVJU	Outdoor Unit Name:	R-32 1 Ton, Cooling only, Ductless ODU Daikin OTERRA
Rated Cooling Capacity (Btu/hr):	12,000	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):	9,540	Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	14,600 / 4,400	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):	3.520		
SEER2 (Non-Ducted/Ducted):	21.00 /		
EER2 (Non-Ducted/Ducted):	12.50 /		

SYSTEM DETAILS

Refrigerant Type:	R-32	Cooling Operation Range (°F DB):	50 - 118
Holding Refrigerant Charge (lbs):	1.65		
Additional Charge (oz/ft):	0.18	Max. Pipe Length (Vertical) (ft):	49
Pre-charge Piping (Length) (ft):	33	Cooling Range w/Baffle (°F DB):	-4 - -4
Max. Pipe Length (Total) (ft):	66		
Max Height Separation (Ind to Ind ft):	0		

Submittal Data Sheet

R-32 --- 1-Ton Wall Mounted Daikin OTERRA Cooling Only System

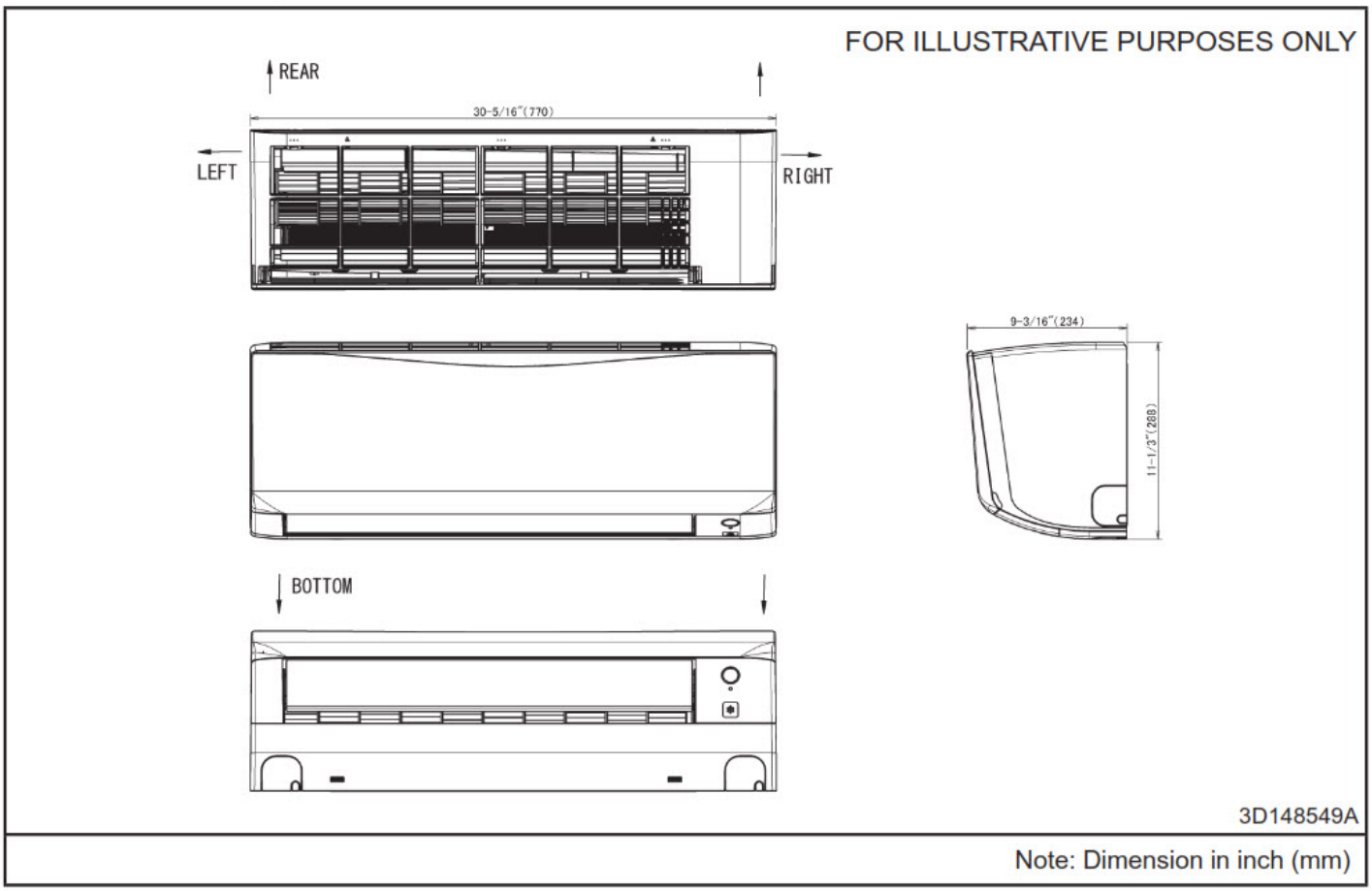
FTKF12AXVJU-RKF12AXVJU

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Airflow Rate (HH/H/M/L/SL) (CFM):	473/436/316/247/132
Power Supply Connections:	L1, L2, L3, Ground	Moisture Removal (Gal/hr):	0.2
Min. Circuit Amps MCA (A):		Gas Pipe Connection (inch):	3/8
Max Overcurrent Protection (MOP) (A):		Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	11-1/3 x 30-5/16 x 9-3/16	Condensate Connection (inch):	5/8
Net Weight (lb):	20.9	Sound Pressure (H/M/L/SL) (dBA):	46/38/32/19
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT

Model : FTKF09/12A, FTXF09/12A



Submittal Data Sheet

R-32 --- 1-Ton Wall Mounted Daikin OTERRA Cooling Only System

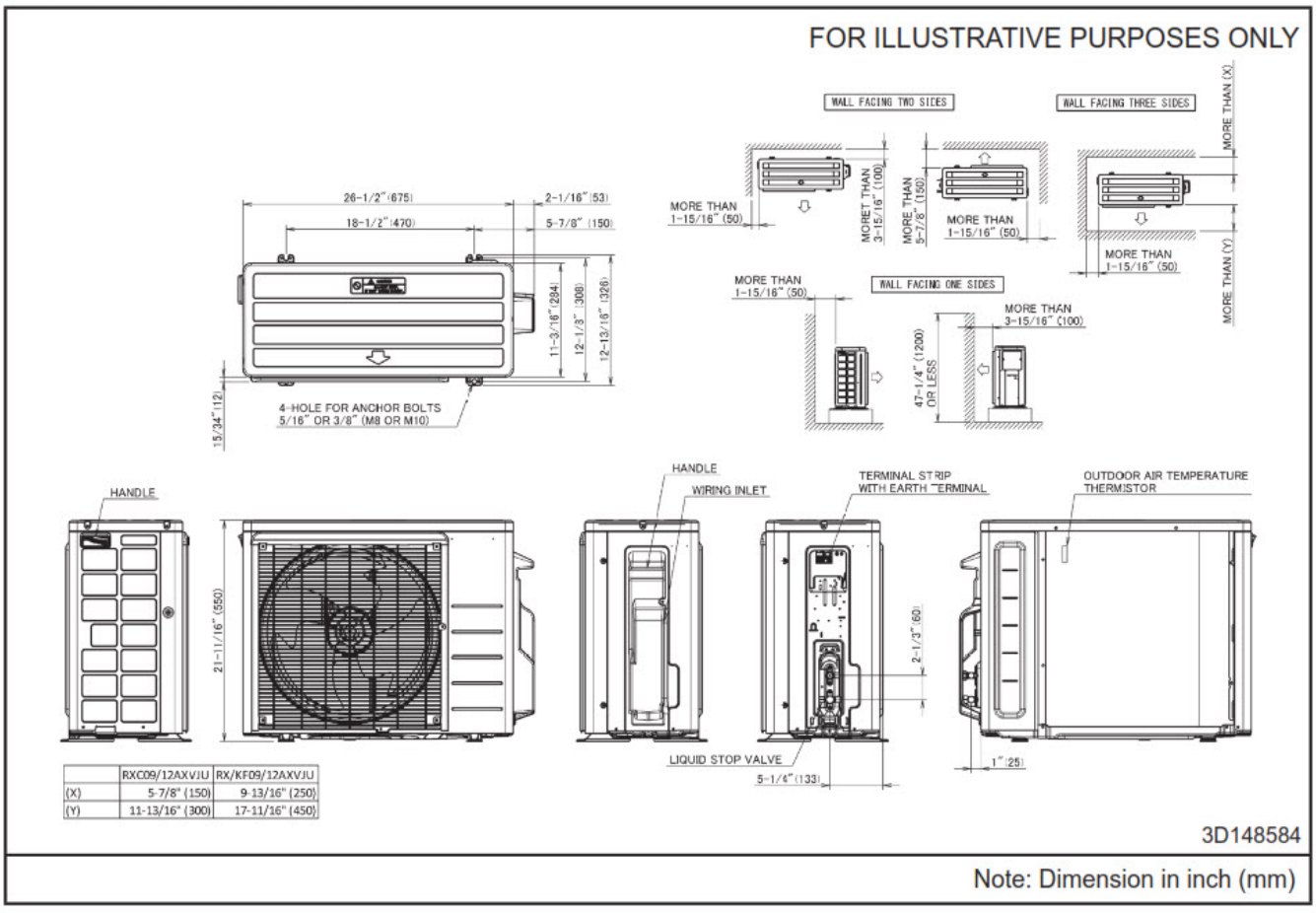
FTKF12AXVJU-RKF12AXVJU

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208-230 / 60 / 1	Compressor Stage:	Inverter
Power Supply Connections:	L1, L2, L3, Ground	Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	9.15	Airflow Rate (H) (CFM):	1051
Max Overcurrent Protection (MOP) (A):	15	Gas Pipe Connection (inch):	3/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):		Sound Pressure (H) (dBA):	49
Dimensions (HxWxD) (in):	21-11/16 x 26-1/2 x 11-3/16	Sound Power Level (dBA):	
Net Weight (lb):	60		

DIMENSIONAL DRAWING - OUTDOOR UNIT

Model : RKF09/12A, RXF09/12A



INDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)	No
AZAI6WSPDKC	DKN Plus Interface	No
BRC51D61	Wired Remote Controller Kit	No
DACA-CP1-1	Mini Aqua Condensate Pump	No
DACA-CP4-1	MINI WHITE PUMP KIT 100-250V	No
DTST-LTE-LA-A	Daikin One Lite (with Translation Adaptor for S21 only)	No
DTST-ONE-ADA-A	Daikin One+ Smart Thermostat for VRV, SkyAir, Single- and Multi-Zone System	No
DTST-TOU-ADA-A	Daikin One Touch Smart Thermostat (with Translation Adaptor for S21 and P1P2)	No
KRP928BB2S	RA Interface Adaptor for DIII-Net -	No

OUTDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
DACA-WB-3	Powder-Coated Wall-Mounted Bracket	No
KEH067A41E	Daikin BMS DrainPan Heater Small RX09,12 and RXN09,12	No
KKG067A41	Back protection wire net (09 & 12)	No
KPW937F4	Air direction adjustment grille (09 & 12)	No

Submittal Data Sheet

Daikin Polara 3.0-Ton Wall Mounted Heat Pump System

FTX36WVJU9RX36WMVJU9

Tag: AC/CU-5

FEATURES

- "Auto Changeover Powerful Operation Mode Econo Mode Program Dry Function Intelligent Eye Auto Fan Speed Wide Angle Louvers Dual Flap System Comfort Mode 3-D Airflow Low Ambient Cooling Quiet indoor and outdoor unit operation Auto Changeover and auto restart Self Diagnosis""

BENEFITS

- ""For rooms with no false ceiling nor free floor space 10-year parts limited warranty for residential/commercial applications Cooling operation down to -22 F outside temperature Error codes display for fast and easy fault diagnosis Long lasting Titanium Apatite air filter Easy to clean flat panels Econo mode reduces power consumption.""

INDOOR UNIT

OUTDOOR UNIT

Submittal Data Sheet

Daikin Polara 3.0-Ton Wall Mounted Heat Pump System

FTX36WVJU9RX36WMVJU9

SYSTEM PERFORMANCE

Indoor Unit Model No.	FTX36WVJU9	Indoor Unit Name:	Daikin POLARA 3.0T Wall Mounted Type IDU
Outdoor Unit Model No.	RX36WMVJU9	Outdoor Unit Name:	Daikin POLARA 3.0-Ton, Heat Pump, Ductless ODU
Rated Cooling Capacity (Btu/hr):	33,200	Rated Cooling Conditions:	Indoor (°F DB/WB): 80 / 67 Ambient (°F DB/WB): 95 / 75
Sensible Capacity (Btu/hr):		Rated Piping Length(ft):	25
Max/Min Cooling Capacity (Btu/hr):	33,200 / 10,200	Rated Height Difference (ft):	0.00
Cooling Input Power (kW):			
SEER2 (Non-Ducted/Ducted):	15.90 /	HSPF2 (Non-Ducted/Ducted):	7.5 /
EER2 (Non-Ducted/Ducted):	9.10 /	Heating COP (Non-Ducted/Ducted):	2.7 /
Rated Heating Capacity (Btu/hr):	35,200	Rated Heating Conditions:	Indoor (°F DB/WB): 70 / 60 Ambient (°F DB/WB): 47 / 43
Max/Min Heating Capacity (Btu/hr):	35,200 / 10,200		

SYSTEM DETAILS

Refrigerant Type:	R-410A	Cooling Operation Range (°F DB):	50 - 114
Holding Refrigerant Charge (lbs):	3.64	Heating Operation Range (°F WB):	5 - 64
Additional Charge (oz/ft):	0.32	Max. Pipe Length (Vertical) (ft):	66
Pre-charge Piping (Length) (ft):	33	Cooling Range w/Baffle (°F DB):	-22 - 115
Max. Pipe Length (Total) (ft):	99		
Max Height Separation (Ind to Ind ft):	0		

Submittal Data Sheet

Daikin Polara 3.0-Ton Wall Mounted Heat Pump System

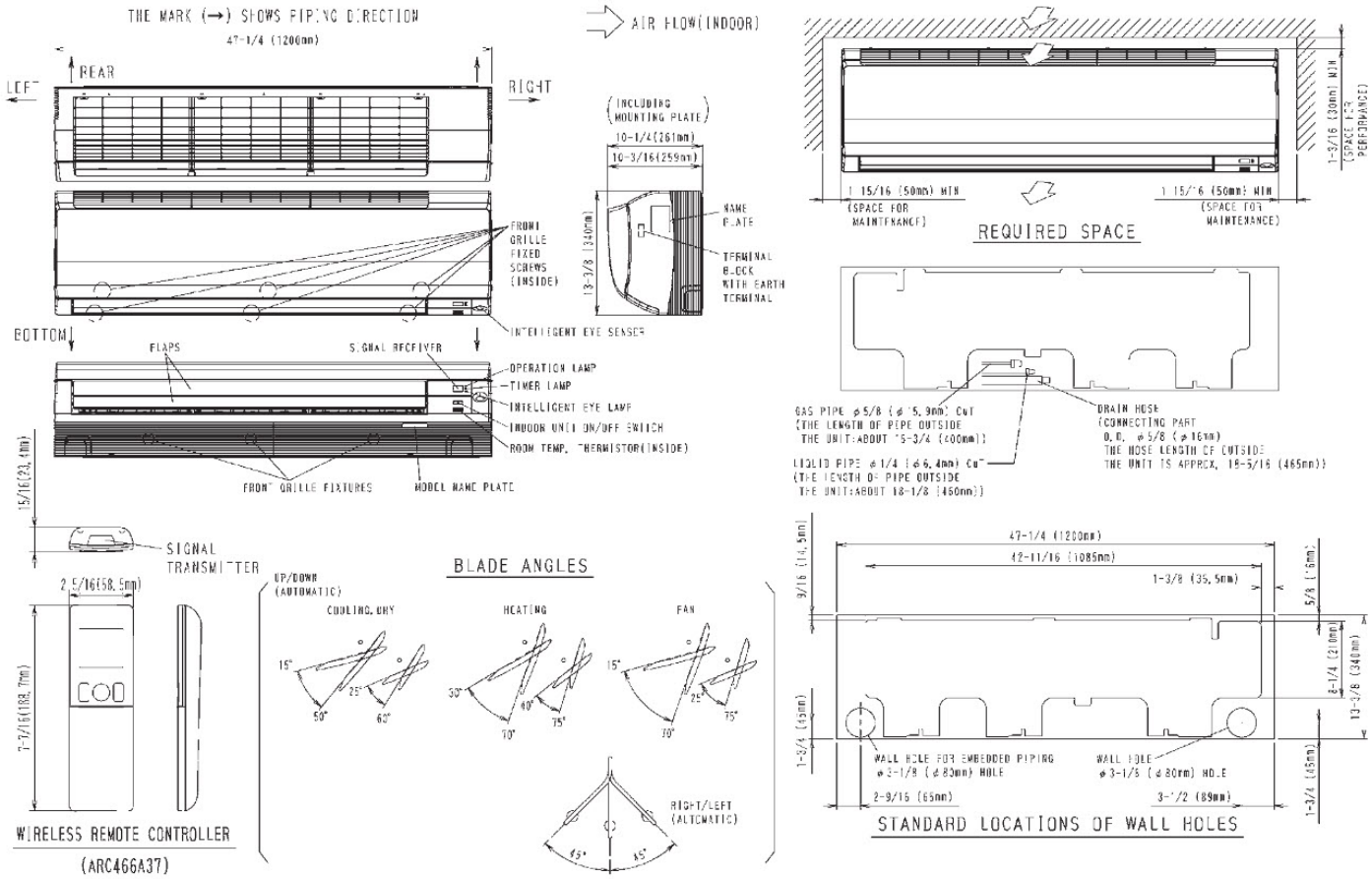
FTX36WVJU9RX36WMVJU9

INDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Airflow Rate (H/M/L/SL) (CFM):	915/742/572/512
Power Supply Connections:		Moisture Removal (Gal/hr):	
Min. Circuit Amps MCA (A):		Gas Pipe Connection (inch):	5/8
Max Overcurrent Protection (MOP) (A):		Liquid Pipe Connection (inch):	1/4
Dimensions (HxWxD) (in):	13-3/8 x 47-1/4 x 10-3/16	Condensate Connection (inch):	
Net Weight (lb):	38	Sound Pressure (H/M/L/SL) (dBA):	54/47/40/37
Ext. Static Pressure (Rated/Max) (inWg):	/	Sound Power Level (dBA):	

DIMENSIONAL DRAWING - INDOOR UNIT

FTX30/36WVJU9



Submittal Data Sheet

Daikin Polara 3.0-Ton Wall Mounted Heat Pump System

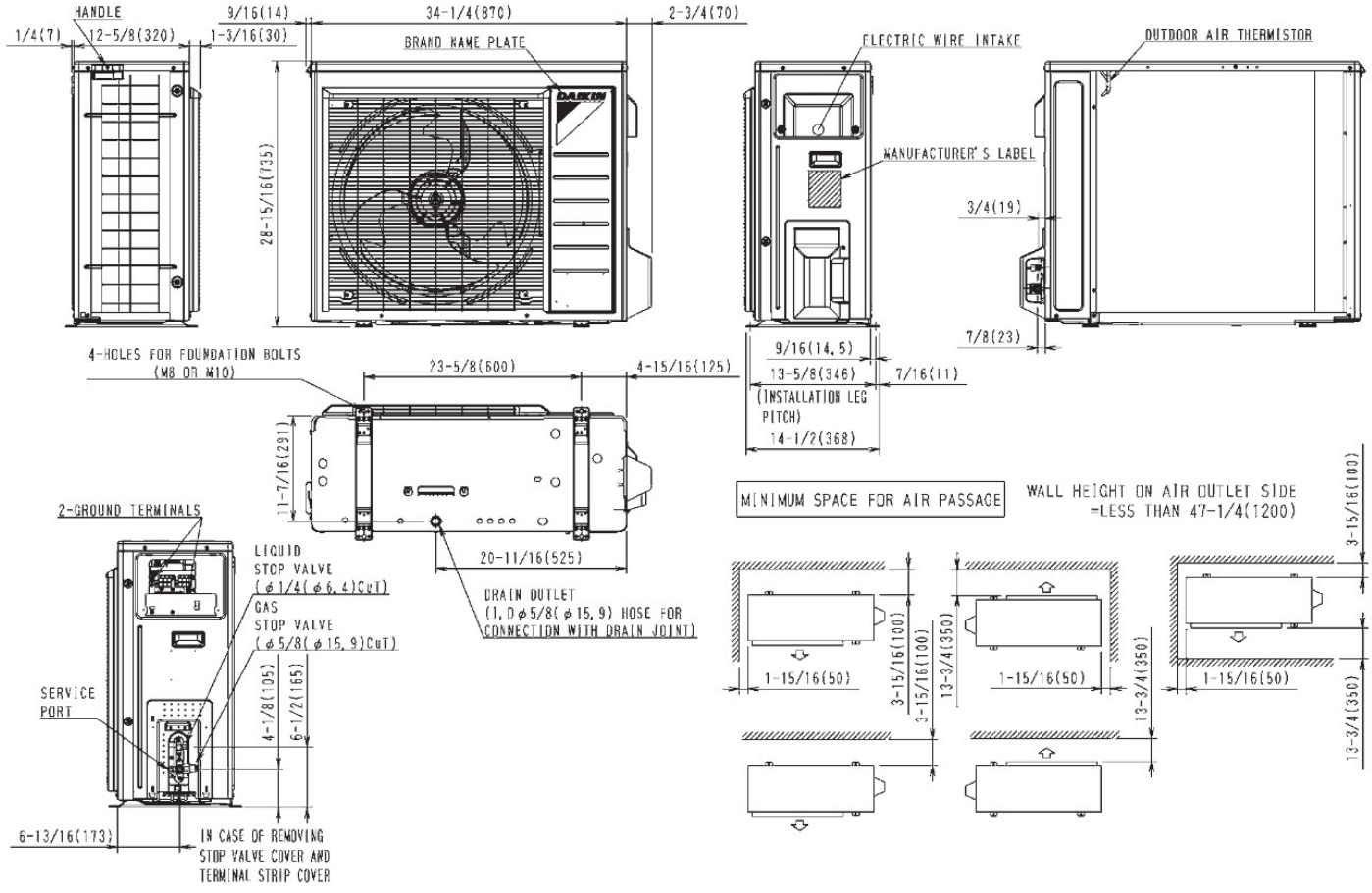
FTX36WVJU9RX36WMVJU9

OUTDOOR UNIT DETAILS

Power Supply (V/Hz/Ph):	208/230 / 60 / 1	Compressor Stage:	Inverter
Power Supply Connections:	1, 2, 3, Ground	Capacity Control Range (%):	-
Min. Circuit Amps MCA (A):	18.6	Airflow Rate (H) (CFM):	2811
Max Overcurrent Protection (MOP) (A):	20	Gas Pipe Connection (inch):	5/8
Max Starting Current MSC(A):		Liquid Pipe Connection (inch):	1/4
Rated Load Amps RLA(A):	18.3	Sound Pressure (H) (dBA):	59
Dimensions (HxWxD) (in):	28-15/16 x 34-1/4 x 12-5/8	Sound Power Level (dBA):	
Net Weight (lb):	133		

DIMENSIONAL DRAWING - OUTDOOR UNIT

RK30/36WMVJU9, RX30/36WMVJU9



INDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
AZAI6WSCDKB	DKN Residential Cloud Wi-Fi Adaptor for Single- and Multi-Zone System (S21)	No
AZAI6WSPDKC	DKN Plus Interface	No
BRC944B2-A08	Wired Remote Controller kit	No
BRCW901A03	BRC944B2 CONTROL CABLE, 10FT	No
BRCW901A08	Wired Remote Controller Cord - 8m/26ft	No
BRP072A43	Daikin Comfort Control WiFi Adaptor	No
DACA-CP1-1	Mini Aqua Condensate Pump	No
DACA-CP4-1	MINI WHITE PUMP KIT 100-250V	No
DTST-LTE-LA-A	Daikin One Lite (with Translation Adaptor for S21 only)	No
DTST-ONE-ADA-A	Daikin One+ Smart Thermostat for VRV, SkyAir, Single- and Multi-Zone System	No
KRP928BB2S	RA Interface Adaptor for DIII-Net -	No

OUTDOOR ACCESSORIES

PART NUMBER	DESCRIPTION	INCLUDED
DACA-WB-3	Powder-Coated Wall-Mounted Bracket	No
KEH063A4E	Daikin BML DrainPan Heater Large	No
KKG063A42	Back protection wire net	No
KPS063A41	Snow hood (intake side plate) (15, 18 & 24)	No
KPS063A44	Snow hood (intake rear plate) (15,18 & 24)	No
KPS063A47	Snow hood (outlet) (15, 18 & 24)	No
KPW063B4	Air direction adjustment grille	No
RAQAHLGD1	Rear Coil Guard BML	No

Split Accessories

Wired Remote Controller kit (Includes BRCW901A08 26ft cable)	BRC944B2-A08	(1)
Wired Remote Controller Kit	BRC51D61	(4)
Mini Aqua Condensate Pump	DACA-CP1-1	(5)
Quicksling Stand	QSMS1801	(3)
Quicksling Stand	QSMS1800	(2)
Wind Guard	KPW937F4	(2)
Wind Guard	KPW063B4	(3)
Interface for use in BACnet	DMS502B71	(1)
RA Interface Adaptor for DIII-Net -	KRP928BB2S	(5)

Submittal Data Sheet

BRC944B2-A08 – Wired Remote Controller Kit

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

MODEL COMPATIBILITY:

Compatible with Single-Zone and Multi-Zone indoor unit models: CDXS, CTXS, FDXS, FTK_N, FTK_A, FTK_B, FTX_A, FTX_B, FTX_N, FTX_U, FTXG*, FTXR, FTXS, FTXM, FVXS

*The Sarara drying function of the *QUATERNITY* units is not supported with the BRC944.

The following indoor units do not have the S21 connection and require an additional interface adaptor (ordered separately):

Indoor Unit Models	Required Interface Adaptor
FTX09NMVJU(A), FTX12NMVJU(A), FTX09WMVJU9, FTX12WMVJU9	KRP067A41E
FTX15NMVJU(A), FTX15WMVJU9	KRP980B2E
FTXM09VVJU, FTXM12VVJU, FTXM18VVJU, FTXM24VVJU, FTXM09WVJU9, FTXM12WVJU9, FTXM18WVJU9, FTXM24WVJU9	KER087A41

SPECIFICATIONS:

Model	BRC944B2-A08
Description	Wired Remote Controller Kit[1]
Maximum Indoor Units	1
Dimensions	4.75 in x 4.75 in x 0.69 in (120mm x 120mm x 17.5 mm)
Communication Protocol	S21
Comfort Setpoint Range	64°F – 90°F Set Point Range
Operation	Start / Stop
	Mode (Auto/Heat/Cool/Dry)
	Set Temperature Setpoint
	Fan Speed
	Airflow Direction
Scheduling	One-time Timer
	Daily Timer

PRODUCT IMAGE:

Remote Controller

Adaptor Board & S21 cable

BRC944B2

BRCW901A08

[1]The Wired Remote Controller Kit includes the BRC944B2 (the remote controller, adaptor board and S21 cable) and the BRCW901A08 (wired remote controller cable).

Submittal Data Sheet

BRC944B2-A08 – Wired Remote Controller Kit

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

FEATURES:

- Selectable auto / cool / heat / dry operation modes with adjustable setpoint and fan speed
- Set temperature setpoint in °F or °C units with 1-degree increments.
- Temperature is controlled through indoor unit temperature sensor.
- Built in one time or daily timer functionality with up to 2 timer actions per day.
- Approximately two-hour battery backup
- Can be used together with the factory supplied standard wireless remote controller.
- An additional or replacement wired remote controller cable can be ordered:
  - BRCW901A03: Non-plenum rated, 10ft.
  - BRCW901A08: Non-plenum rated, 26ft.
  - DACA-BRCW901P10: Plenum rated, 10ft.
  - DACA-BRCW901P25: Plenum rated, 25ft.
- For FTX_B, FTK_B, FTXB_B models the unit is running based on a 1°C temperature control. The setpoint command will be rounded to °C to send to the indoor unit. For some setpoints, the indoor unit temperature command may not change as shown in the table below.

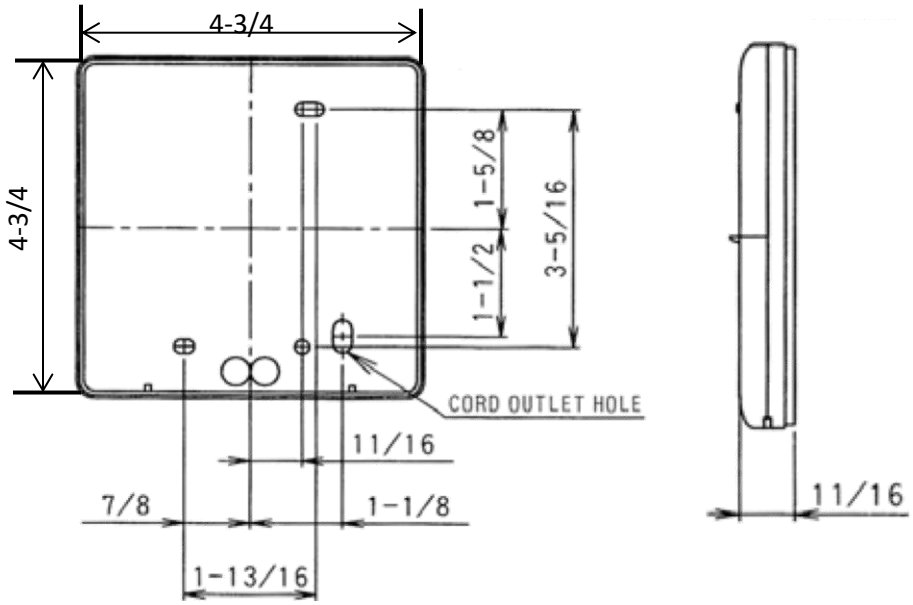
User Setpoint on Controller (°F)	Actual Indoor Unit Setpoint (°F)
68	68
69	68
70	70
71	70
72	72
73	73
74	73
75	75
76	75
77	77
78	77
79	79
80	79
81	81
82	82

Submittal Data Sheet

BRC944B2-A08 – Wired Remote Controller Kit

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

DIMENSIONS:



DOCUMENTATION:

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

- Submittal
- Installation Manual
- Operation Manual

Submittal Data Sheet

BRC51D61 – Wired Remote Controller Kit

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

MODEL COMPATIBILITY:

Compatible with Single-Zone system indoor unit models:

Indoor Unit Models	Interface Adaptor
FTKB09AXVJU, FTKB12AXVJU, FTKB18AXVJU, FTKB24AXVJU, FTXB09AXVJU, FTXB12AXVJU, FTXB18AXVJU, FTXB24AXVJU, FTXB09BXVJU, FTXB12BXVJU, FTXB18BXVJU, FTXB24BXVJU	Not needed
CTX07AXVJU, CTX09AXVJU, CTX12AXVJU, FTK09AXVJU, FTK12AXVJU, FTK18AXVJU, FTK24AXVJU, FTX09AXVJU, FTX12AXVJU, FTX18AXVJU, FTX24AXVJU, FTK09BXVJU, FTK12BXVJU, FTK18BXVJU, FTK24BXVJU, FTX09BXVJU, FTX12BXVJU, FTX18BXVJU, FTX24BXVJU	Not needed

SPECIFICATIONS:

Model	BRC51D61
Description	Wired Remote Controller Kit
Maximum Indoor Units	1
Total Wiring Length	32.8ft (10m)
Dimensions	4.72 in x 4.72 in x 0.78 in (120mm x 120mm x 19.5 mm)
Connection Point	CN_WIRED (FTK/XB_AXVJU) CN_NS (FTK/X_AXVJU, FTK/X_BXVJU, FTXB_BXVJU)
Comfort Setpoint Range	60°F – 86°F
Operation	Start / Stop
	Mode (Auto/Heat/Cool/Dry/Fan)
	Set Temperature Setpoint
	Fan Speed
	Airflow Direction
	Feature Selection (SLEEP, ECO+, POWERFUL, QUIET)
	Turn ON/OFF indoor unit LED display
Scheduling	Weekly ON/OFF Timer

PRODUCT IMAGE:

DAIKIN COMFORT TECHNOLOGIES NORTH AMERICA, INC.
19001 Kermier Road, Waller, TX, 77484
www.daikinac.com www.daikincity.com

Rev.0923

Submittal Data Sheet

BRC51D61 – Wired Remote Controller Kit

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

FEATURES:

- The Wired Remote Controller Kit includes a wired remote controller, a 32 ft. connecting cable and mounting screws.
- Selectable auto / cool / heat / dry / fan operation modes with adjustable setpoint and fan speed
- Set temperature setpoint in °F or °C units with 1 degree increments
- Temperature is controlled through indoor unit temperature sensor
- Built in weekly ON/OFF timer functionality with up to 2 ON/OFF cycles per day
- Can be used together with the factory supplied standard wireless remote controller – the system will follow the last command provided by either the handheld remote or BRC51D61.
- Room temperature display available via jumper – readout is return air temp at the indoor unit.
- System maintains a 3° to 5°F temperature correction of the set point, depending on the mode of operation.
- The unit runs based on a 1°C temperature control. The setpoint command will be rounded to °C and sent to the indoor unit. For some setpoints, the indoor unit temperature command may not change as shown in the table below.

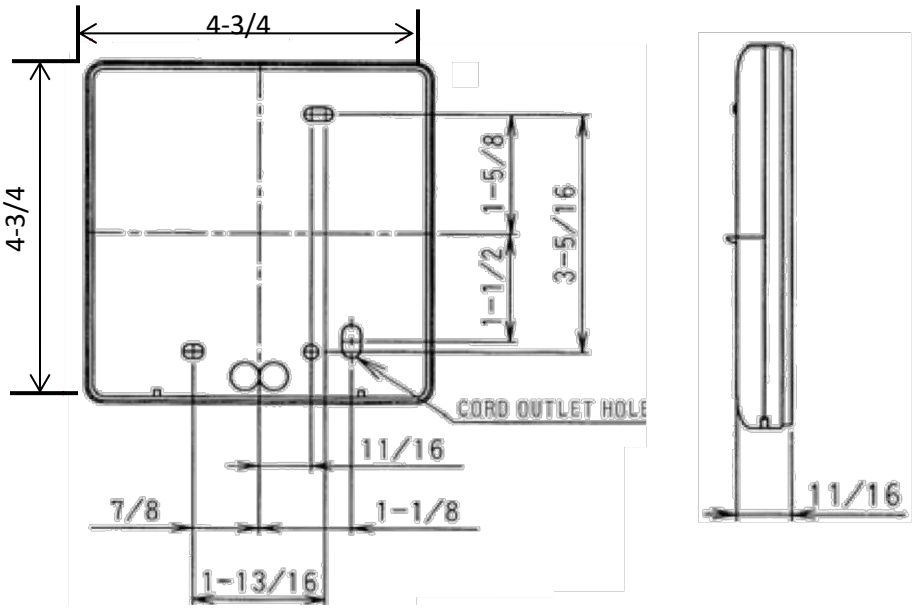
User Setpoint on Controller (°F)	Actual Indoor Unit Setpoint (°F)
68	68
69	68
70	70
71	70
72	72
73	73
74	73
75	75
76	75
77	77
78	77
79	79
80	79
81	81
82	82

Submittal Data Sheet

BRC51D61 – Wired Remote Controller Kit

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

DIMENSIONS:



DOCUMENTATION:

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

- Submittal
- Operation Manual (including installation instructions)

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:

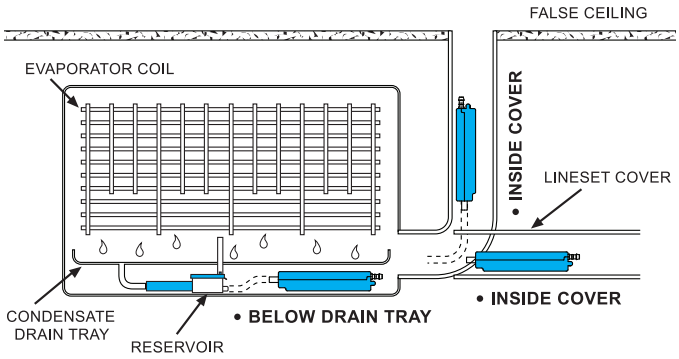
Product Code - DACA-CP1-1
Model - DACA-CP1-1
Carton Qty - 1
Carton Weight - 1.5

(Sec. III) Carton Contents:

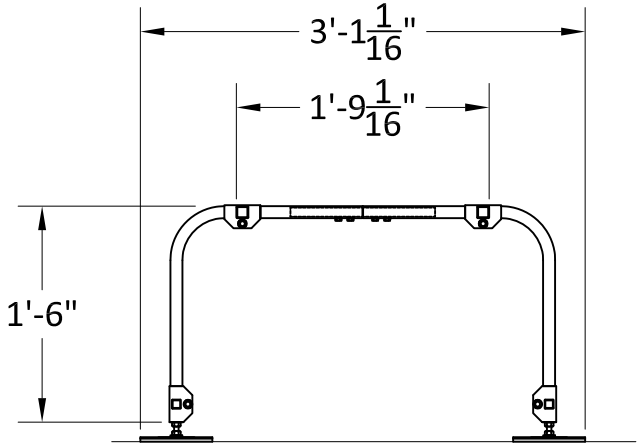
Pump Assembly
Inline Reservoir
8”x5/8” i.d. Inlet Tube
5’x1/4” i.d. Vinyl Discharge Tube
Installation Manual
6”x1/4” i.d. Vinyl Breather Tube
Drain Hose Adaptor
Inline Fuse
Cable Ties (6)
Self Adhesive Velcro Strips (2)
Anti-siphon (1)

(Fig. I) Product Image:

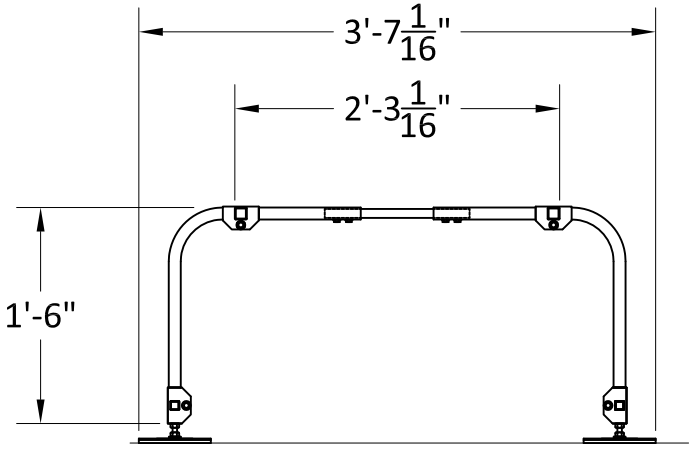
(Fig. II) Typical Pump Locations:



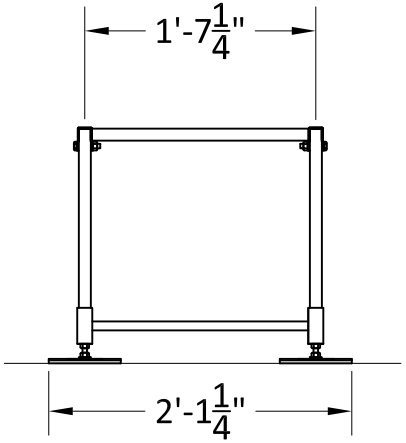
www.rectorseal.com 2601 Spenwick Drive, Houston, TX 77055 713.263.8001 - 800.231.3345 713.263.7577 - 800.441.0051



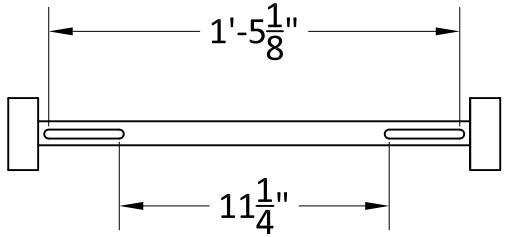
Side View - Retracted



Side View - Expanded



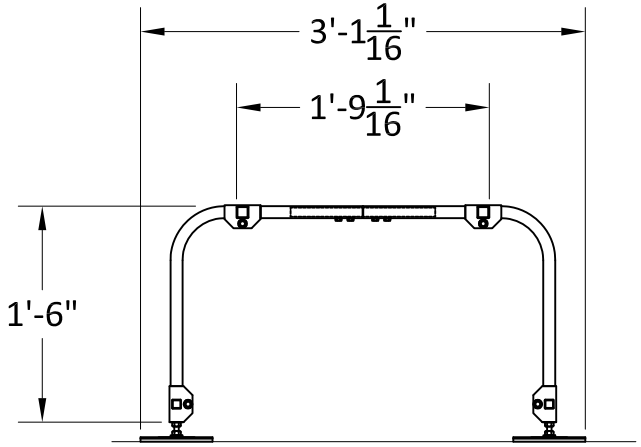
End View - Fixed



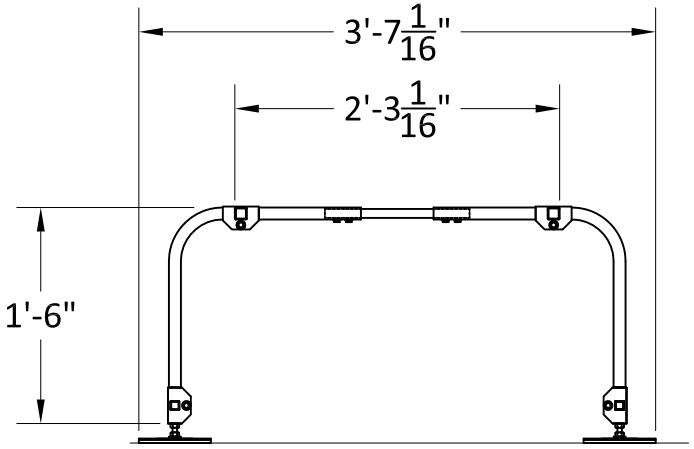
Spacer Bar Detail
(Showing Range of Bolt Spacing)

QUICK-SLING	ASSEMBLY DRAWING "MINI-SPLIT 18" ADJUSTABLE STAND - WIDE MODEL NO. QSMS1801	www.quick-sling.com email: info@quick-sling.com fax: 1-(800)-699-0423	Quick Sling, LLC 391 W. Water Street Taunton, MA 02780 1-(800)-699-0543

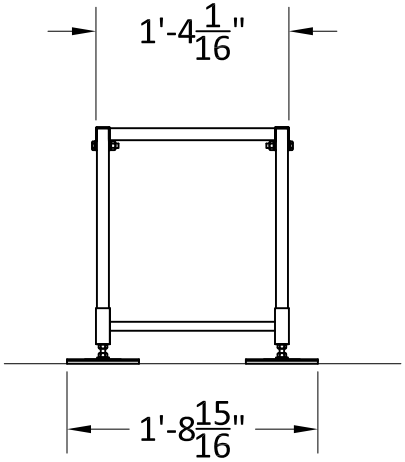
U.S. Patent No. 8,827,232 B2



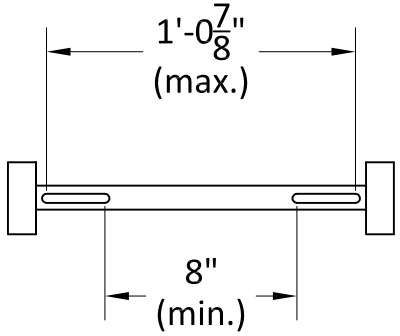
Side View - Retracted



Side View - Expanded



End View - Fixed



Spacer Bar Detail
(Showing Range of Bolt Spacing)

QUICK-SLING

ASSEMBLY DRAWING
"MINI-SPLIT 18"
ADJUSTABLE STAND - THIN
MODEL NO. QSMS1800

www.quick-sling.com
email: info@quick-sling.com
fax: 1-(800)-699-0423

Quick Sling, LLC
391 W. Water Street
Taunton, MA 02780
1-(800)-699-0543

U.S. Patent No. 8,827,232 B2

Submittal Data Sheet
Wind Baffle
KPW937F4

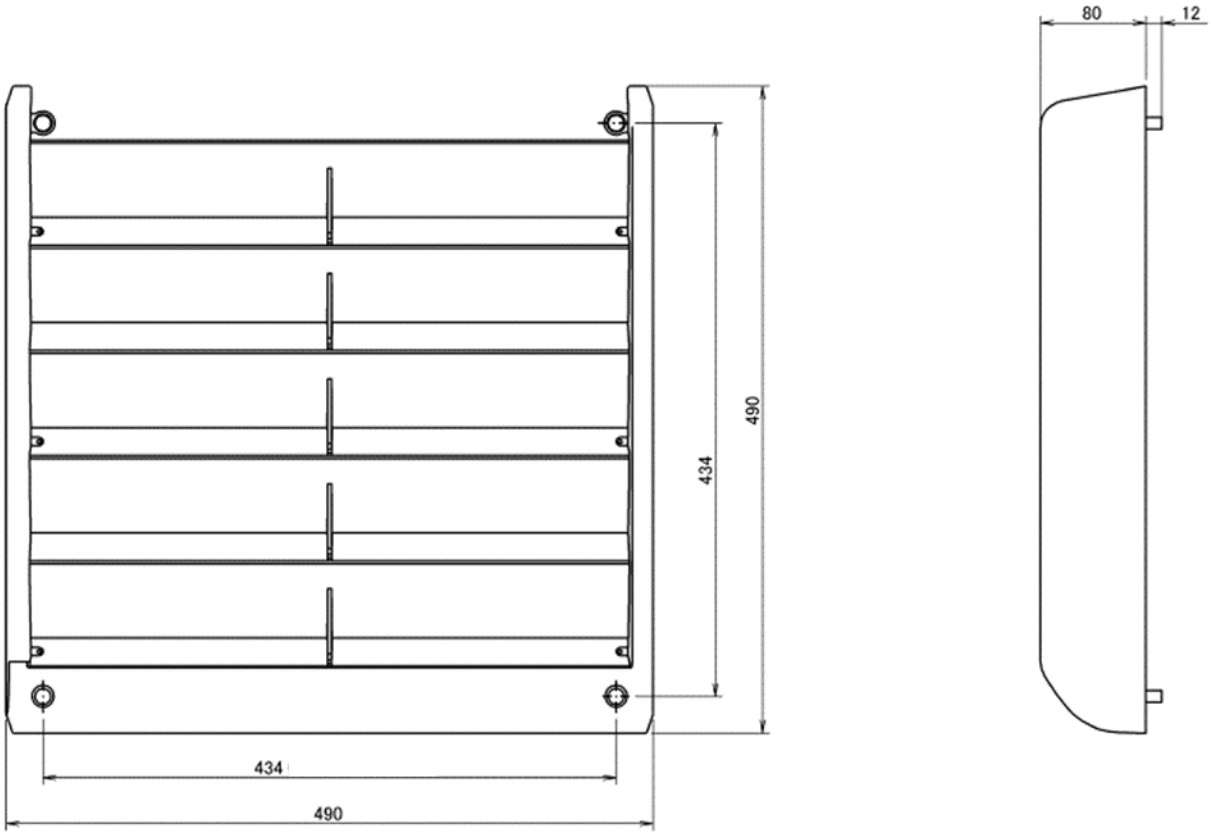
Image for REFERENCE ONLY

DESCRIPTION

Wind Baffle mounts over the standard air grille and allows adjustment in air blow-off direction.

SPECIFICATIONS		
Model No:	KPW937F4	
Unit Compatibility:	RK09NMVJU, RK12NMVJU, RX09NMVJU, RX12NMVJU, RX09RMVJU(9), RX12RMVJU(9), RXL09QMVJU, RXL12QMVJU(9), RXS09LVJU, RXS12LVJU, RXG09HVJU, RXG12HVJU, RXG15HVJU	Qty (1)
Unit Names:	Wind Baffle	
Dimensions (WxHxD):	19-5/16” x 19-5/16” x 3-5/8” (490mm x 490mm x 92mm)	
Shipping Unit Weight:	6.75 lb.	
Material:	Flame Retardant Grade UL94V-HB	

DIMENSIONAL DRAWING (mm)



Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056
www.daikinac.com www.daikincomfort.com

Submittal Data Sheet
Air Adjustment Grille (Wind Baffle)
KPW063B4

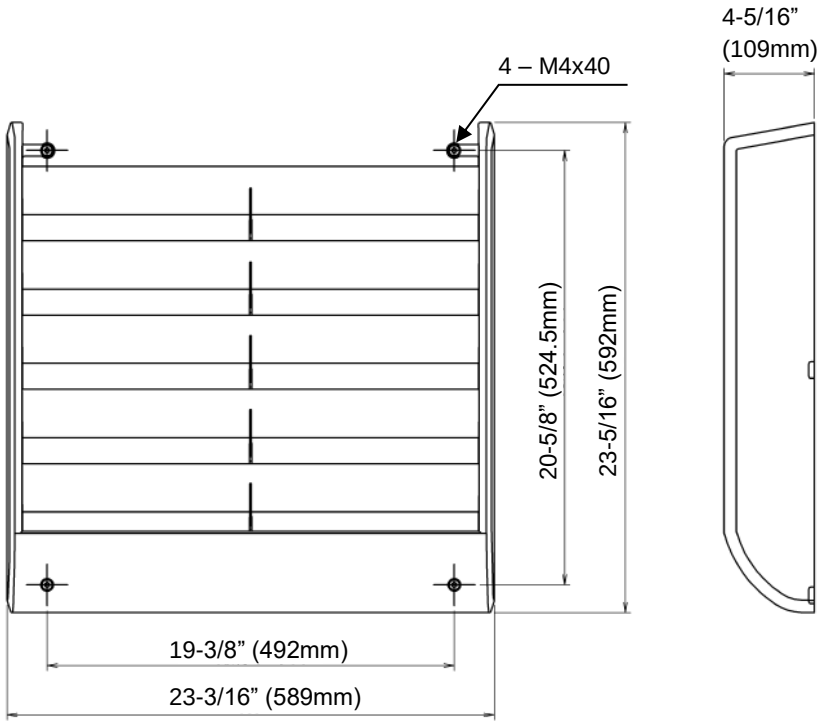
Image for REFERENCE ONLY

DESCRIPTION

Air Adjustment Grille (Wind Baffle) mounts over the standard air grille and allows adjustment in air blow-off direction.

SPECIFICATIONS		
Model No:	KPW063B4	
Unit Compatibility:	RK18NMVJU, RK24NMVJU, RX24NMVJU, RX18NMVJU, RK30NMVJU(A), RK36NMVJU(A), RX30NMVJU(A), RX36NMVJU(A), RX15RMVJU(A), RX18RMVJU(9)(A), RX24RMVJU(A), RXL15QMVJU(A), RXL18UMVJU(A), RXL24UMVJU(A), 2MXS18NMVJU(A), 3MXS24RMVJU(A), 4MXS36RMVJU(A), 2MXL18QMVJU(A), 3MXL24RMVJU(A)	Qty (1)
Unit Names:	Air Adjustment Grille (Wind Baffle)	
Dimensions (WxHxD):	23-3/16” x 23-5/16” x 4-5/16” (589mm x 592mm x 109mm)	
Shipping Unit Weight:	5.75 lb. (2.6 kg)	
Material:	Flame Retardant Grade UL94V-HB	

DIMENSIONAL DRAWING



Daikin North America LLC, 5151 San Felipe, Suite 500, Houston TX, 77056
www.daikinac.com www.daikincomfort.com

Submittal Data Sheet

DMS502B71 – Interface for use in BACnet

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
- FTX, FTXN, FTK, and FTKN with the use of the DIII-Net Adapter KRP928BB2S and an Interface adaptor KRP067A41E/KRP980B1/KRP980B2E

SPECIFICATIONS:

Model	DMS502B71
Description	BACnet Interface
Maximum Indoor Units	128 groups/256 indoor units (256 groups/512 indoor units with DAM411B51)
Maximum Outdoor Units	20 (40 with DAM411B51)
DIII-Net Communication Wire	18AWG-2, No polarity Stranded, Non-shielded
BACnet IP Communication Wiring	10Base-T/100Base-TX
Communication Protocol	Daikin Proprietary DIII-Net protocol / BACnet IP
IP Setting Range	Class C network
Power	24VAC (field supplied) (40VA maximum)
Comfort Setpoint Range	60 to 90 °F (16 to 32 °C)
Setpoint	Single Setpoint
Temperature Units	Degrees Fahrenheit or Celsius
Operating Temp Range	14 to 122°F (-10 to 50°C)
Operating Humidity Range	90% or less (RH) (w/o condensation)
Dimensions (WxHxD)	10.81 x 10.34 x 2.69 inch (274.57 x 262.13 x 68.33 mm)
Weight (Mass)	6.2 lbs. (2.8 kg)
Certification	FCC Part 15 Subpart B Class A

PRODUCT IMAGE:

Notes:
Image shows BACnet Interface (DMS502B71) with Optional DIII Board (DAM411B51) inserted

Submittal Data Sheet

DMS502B71 – Interface for use in BACnet

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

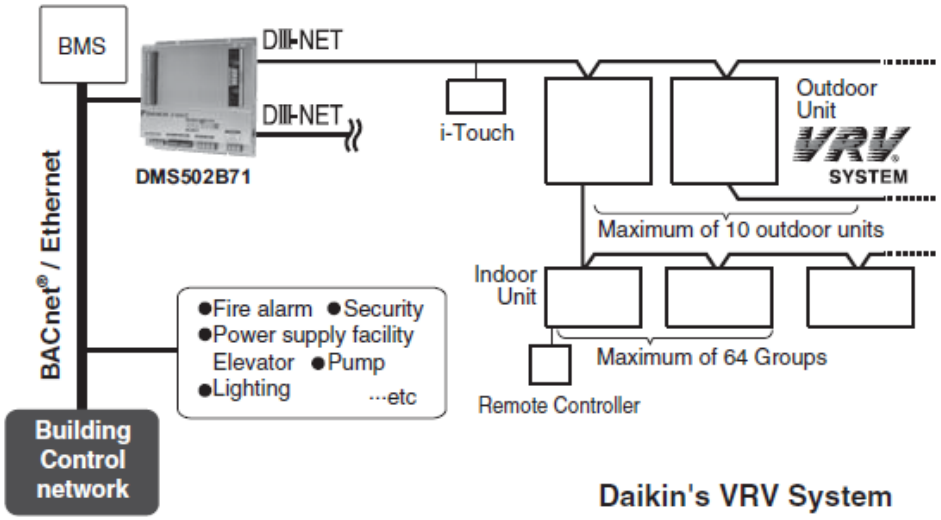
OPTIONS:

- Option DIII Board DAM411B51 can be applied to add two additional DIII-Net ports to the BACnet Interface

FEATURES:

- Integrate Daikin VRV, SkyAir, Single and Multi-zone systems with third party building automation systems supporting the BACnet protocol
- BACnet Application Specific Controller (B-ASC) device profile compatible with BACnet (ANSI / ASHRAE-135)
- BACnet IP Data Link Layer (Annex J)
- Supports COV – Change of Value, Property Array Index and Segmented requests
- IPv4 and Foreign Device registration for use with BACnet Broadcast Management Devices (BBMD)
- BTL listed (operating system version 6.2 and later)
- Diagnostic LEDs
- 2 Alarm Output contacts DO-1 and DO-2
- 4 Digital Inputs for Forced Off function
- The following programing is required from BMS:
    - Auto-changeover
    - Setpoint Range Limitation
    - Setback
    - Scheduling
    - Dual Setpoints

SYSTEM DIAGRAM:



Daikin's VRV System

Submittal Data Sheet

DMS502B71 – Interface for use in BACnet

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

INDOOR UNIT MONITORING AND CONTROL POINTS:

Check the appropriate box indicating the required integrated points for this project.

Function			Description
Operation, configuration, and monitoring		On/Off (Note2)	Start / stops the indoor unit and monitors the latest status
		Operation Mode (Note 2)	Sets the cool / Heat / Fan/ Dry mode for the indoor unit and monitors the latest mode
		Setpoint setting (Note 2)	Sets the setpoint of the indoor unit and monitors the latest setpoint.
		Filter sign and reset	Monitors filter run time, provides service alert, and allows a manual reset of the status as required.
		Remote controller permit/prohibit	Permits or prohibits the remote controller so that it can or cannot be used to control the indoor unit's On/Off/Operation mode/Setpoint
		Lower Centralized Controller operation enable/disable	Enables or disables operation of a Centralized Controller connected to the DIII network.
		Fan Speed setting (Note 2)	Sets the fan speed and monitors the latest setting.
		Airflow direction setting (Note 2)	Sets the airflow direction and monitors the latest setting.
		Forced system stop	The forced system stop command will force the indoor units to stop running based upon a received emergency alarm input. Remote controllers will be locked out from restarting indoor units during a forced system stop event.
		Forced Thermo-off	In response to the forced thermo-off command, the indoor unit stops actively cooling or heating.
		Energy saving	Offsets the internal setpoint +3.6^{0}F (2^{0}C) in cooling, and -3.6^{0}F (-2^{0}C) in heating in an indoor unit. The actual setpoint is not changed.
		Ventilation mode setting (Note 2)	Sets the ventilation mode and monitors the latest mode.
		Ventilation amount setting (Note 2)	Sets the ventilation amount and monitors the latest amount.
Monitoring		On/Off status	Monitors the On/Off status of the indoor unit.
		Alarm	Monitors whether or not the indoor unit is operating normally, and issues an alarm if the indoor unit has a malfunction.
		Malfunction code	Displays a malfunction code specified by Daikin if an indoor unit in the system has a malfunction.
		Operation mode	Monitors if the indoor unit is in Cool, Heat, Fan, or Dry mode.
		Room temperature (Note 1)	Monitors the room temperature.
		Filter sign	Monitors filter run time and provides service alert.
		Thermo-on status	Monitors whether or not the indoor unit is in actively cooling or heating.
		Compressor status	Monitors if the compressor of the outdoor unit connected to the indoor unit is properly operating.
		Indoor fan status	Monitors if the indoor unit's fan is properly operating.
		Heater status	Monitors if the indoor unit's heater is properly operating.
		Ventilation mode status	Monitors the ventilation mode status of the Energy Recover Ventilator
		Ventilation amount status	Monitors the ventilation amount status of the Energy Recovery Ventilator

1. Room temperature data (BACnet object name RoomTemp_XXX) by default is reported from the Daikin indoor units return air thermistor. This applies to all VRV indoor unit styles and capacities. During periods when the indoor unit is turned off or during certain operating modes that cycle the fan off including defrost operation, hot-start and system pressure equalization, the reported temperature may not accurately reflect the actual space temperature. For applications where this temperature value will be primary to system control including mode and

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

temperature setpoint management, it is recommended that the Daikin remote temperature sensor (Part No. KRCS01-1B or 4B depending on model) is specified for each indoor unit and installed within the occupied space or unit be configured to be controlled from temperature sensor in BRC1E73 Navigation Controller if the unit is capable.

2. In the indoor unit, the setpoints, start/stop status, mode, airflow direction, and fan speed are written to the non-volatile memory each time they are changed so the settings are not lost in the event of a power failure. The number of times this non-volatile memory can be written is limited, and writing beyond that limit may cause failure to the indoor unit EEPROM. This will not cause the indoor unit to stop functioning; however, the volatile memory will not retain the last settings received. Consequently, when the setpoints, start/stop status, mode, airflow direction, and fan speed are frequently changed by automatic control from the BMS, the number of times each setting for each indoor unit is limited to 70,000 – 80,000 times per year (dependent on the indoor unit manufacturing date).If the same value is repeatedly sent, it will not be added to the total "write to" count.
3. BACnet® is a registered trademark of ASHRAE.

COMPATIBILITY:

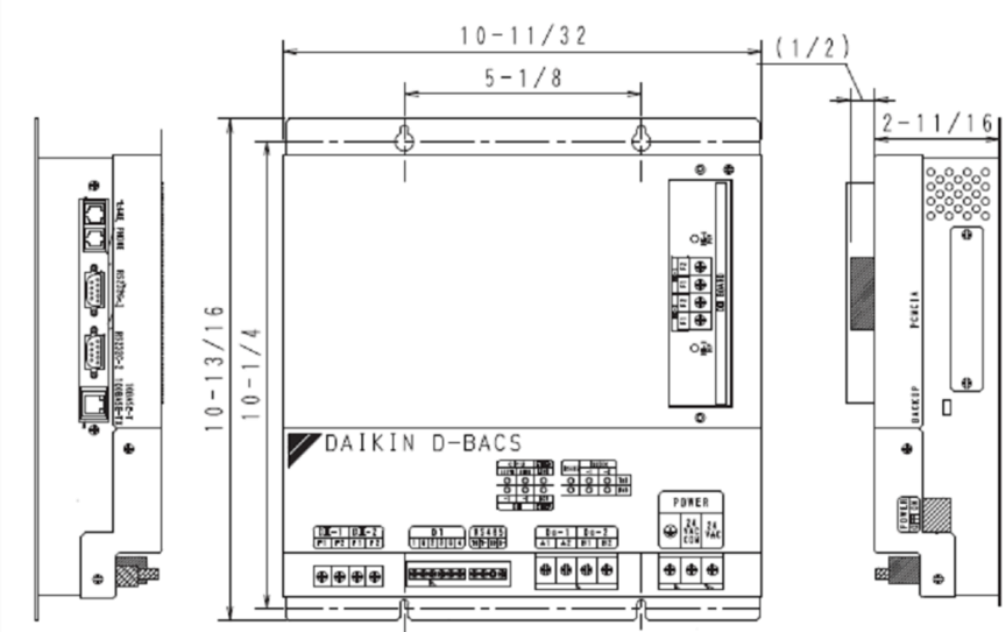
Function	VRV indoor unit	SkyAir indoor unit (except FTXS)	VAM	Outdoor air processing unit	Mini-Split & SkyAir FTXS indoor units (KRP928 adapter required)	FFQ indoor unit for Multi-split & Super Multi Plus (DTA112BA51 adapter required)
On/Off operation and monitoring	✔	✔	✔	✔	✔	✔
Indoor unit malfunction notification	✔	✔	✔	✔	✔	✔
Room temperature monitoring	✔	✔	N/A	✔ (return air	✔	✔
Setpoint setting and monitoring	✔	✔	N/A	N/A	✔	✔
Operation mode setting and monitoring	✔	✔	N/A	✔	✔	✔
Remote-control permit/prohibit setting and monitoring	✔	✔	✔	✔	✔	✔
Filter sign monitoring and reset	✔	✔	✔	✔	N/A	✔
Thermo-on status monitoring	✔	✔	N/A	✔	N/A	✔
Compressor operation status monitoring	✔	✔	N/A	✔	N/A	✔
Indoor fan status monitoring	✔	✔	✔	✔	N/A	✔
Heater status monitoring	✔	✔	N/A	✔	N/A	✔
Airflow direction setting and monitoring	✔	✔	N/A	N/A	N/A	✔
Fan speed settings and monitoring	✔	✔	✔ (Monitoring	N/A	N/A	✔
Forced thermo-off setting and monitoring	✔	✔	N/A	✔	N/A	✔
Energy saving (setpoint offset)	✔	✔	N/A	✔	N/A	N/A
Ventilation Mode	N/A	N/A	✔	N/A	N/A	N/A
Ventilation Amount	N/A	N/A	✔	N/A	N/A	N/A

Submittal Data Sheet

DMS502B71 – Interface for use in BACnet

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

DIMENSIONS:



DOCUMENTATION:

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

- BACnet Design Guide
- Installation Manual
- Submittal
- Guide Specifications

1.6 Interface Adaptor for DIII-NET Use (RA) <KRP928B2S>

1.6.1 Functions

Type	BRC1C62	KRP928B2S
Group/Zone / Item	One Group	Unified control for all Zone
ON/OFF	Possible	Possible
Temp. setting	Possible	Possible
Airflow rate setting	Possible	Impossible
Airflow direction setting	Possible	Impossible
Timer setting twice a day	Possible	Impossible
Mode setting	Possible	Possible
Filter sign reset	Possible	Impossible
Inspection/Test operation	Possible	Operation display only by lamps

<Overview, Features and Compatible Models>

This kit is the interface required when connecting the centralized control equipment and a Daikin Room Air Conditioner. Use of the centralized control equipment makes it possible to perform the following monitoring and operations. It is compatible with room air conditioners which have an HA connector S21.

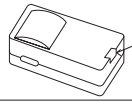
1. Run / stop for the centralized control equipment and wired remote controller, operating mode selection, and temperature can be set.
2. The operating status, any errors, and the content of those errors can be monitored from the centralized control equipment and wired remote controller.
3. Run / stop for the centralized control equipment and wireless remote controller, operating mode selection, and the temperature setting can be limited by the centralized control equipment.
4. Zone control can be performed from the centralized control equipment.
5. The unit can remember the operating status of the air conditioner before a power outage and then start operating in the same status when the power comes back on.
6. Card keys, operating control panels, and other constant / instantaneous connection-compatible equipment can be connected.
7. The Operating / error signals can be read.
8. HA JEM-A-compatible equipment can be connected.
9. The indoor temperature can be monitored from the intelligent Touch Manager.

Precaution

1. When reading the Operating / error signals, a separate external power supply (DC 12V) is needed.
2. A separate timer power supply (DC 16V) is needed when using the schedule timer independently, and not in conjunction with other centralized control equipment.
3. The range of temperatures that can be set from the centralized control equipment is 18°C to 32°C in cooling and 14°C to 28°C in heating.
4. Fan operation cannot be selected from the centralized control equipment or wired remote controller.
5. Group control (i.e., control of multiple indoor units with a single remote controller) is not available.
6. Monitoring is not available of the thermo. status, compressor operating status, indoor fan operating status, electric heater, or humidifier operating status.
7. Forced thermo. off, filter sign display and reset, fan direction and speed settings, air conditioning fee management, energy savings instructions, low-noise instructions, and demand instructions cannot be made.

<Component Parts and Separately-Sold Parts which are Required>

This kit includes the following components. Check to ensure that none of these are missing.

Parts	Q'ty	Parts	Q'ty
Kit assy PCB is in the housing.  	1	Connection harness (about 1.6m)	1set
		Mounting screws	3pcs.
		Binding band	1pc.
		Installation manual	1set

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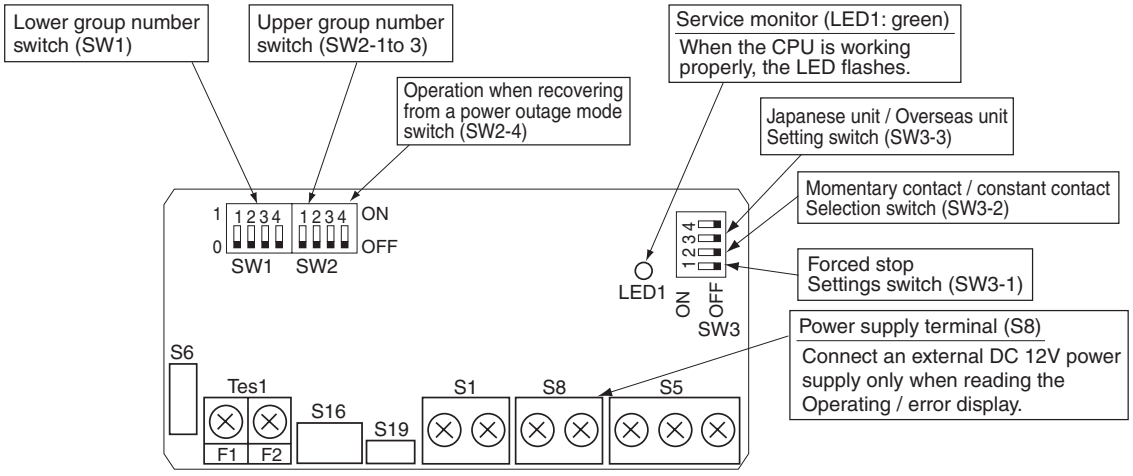
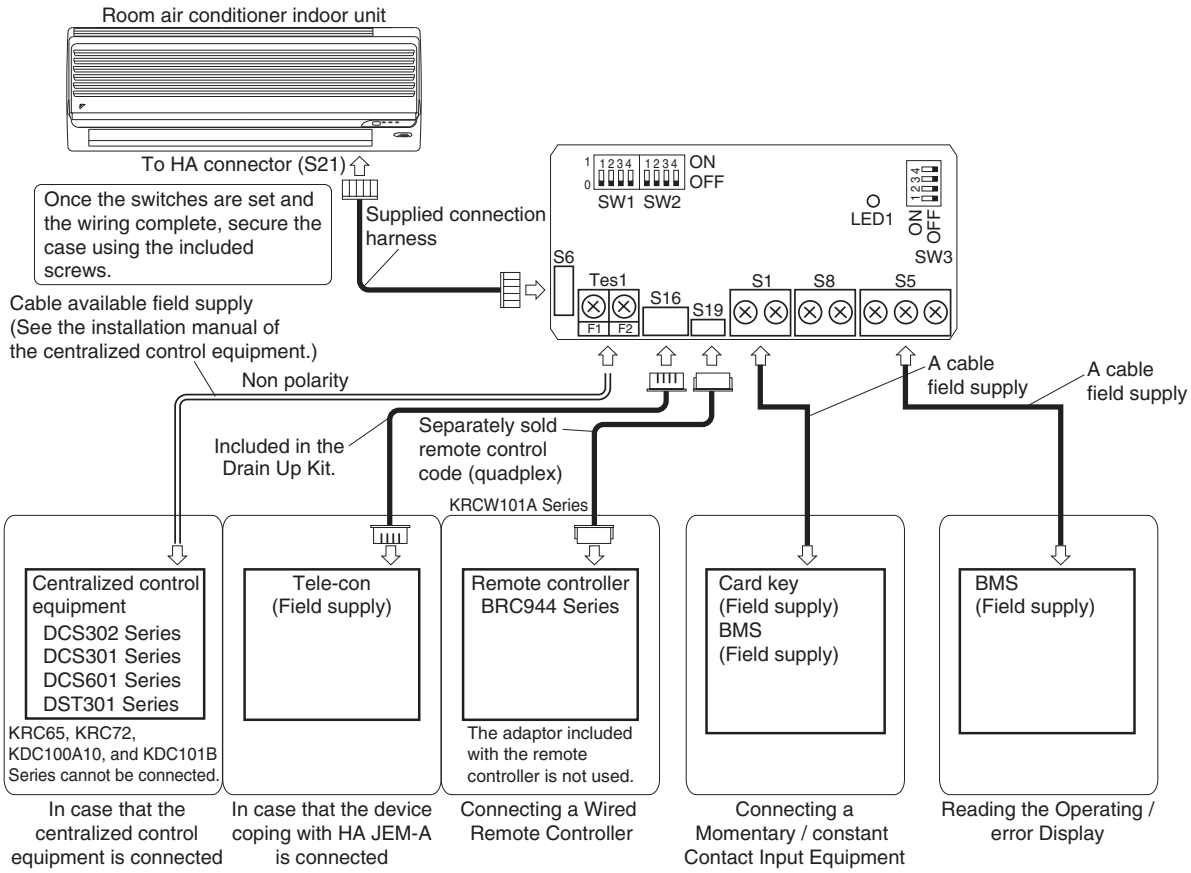
1.6.2 Part Names and Functions



1.6.3 Electric Wiring Work and Initial Settings

<Wiring procedure>



<Switch Settings>

NOTE	Turn the power on after all the switches have been set. Settings made while the power is on are invalid.

Open the Kit's case and set the switches on the circuit board.

(1) For Overseas / Japanese unit setting (SW3-3)

Room air conditioners, different methods are used for setting the temperature in automatic mode, so this switch needs to be set.

Destination	SW3-3 setting	What Happens
Japan	OFF (Factory setting)	● "Automatic" operation is not available from the centralized control equipment. When using "automatic" operation using the wireless remote controller, the centralized control equipment displays automatic cooling (heating) and 25°C. Even if the temperature is changed, it will return to 25°C after a while.
Other countries	ON	● "Automatic" operation is available from the centralized control equipment.

(2) Group number settings (SW1 and SW2-1 to SW2-3)

Set these when using the centralized control equipment. (Set to the ■ side.) Do not set more than one unit to the same number.

However, these settings do not need to be made when using the schedule timer independently.
(The settings are needed when used in conjunction with another DCS Series centralized control equipment.)
In this case, the schedule timer performs an auto address after the power is turned on, so new group numbers are automatically set. Settings made using the switches will be overwritten.

SW2 setting	Upper group No.	SW1 setting	Lower group No.	SW1 setting	Lower group No.
1 2 3	1—	1 2 3 4	0 0	1 2 3 4	0 8
1 2 3	2—	1 2 3 4	0 1	1 2 3 4	0 9
1 2 3	3—	1 2 3 4	0 2	1 2 3 4	1 0
1 2 3	4—	1 2 3 4	0 3	1 2 3 4	1 1
1 2 3	5—	1 2 3 4	0 4	1 2 3 4	1 2
1 2 3	6—	1 2 3 4	0 5	1 2 3 4	1 3
1 2 3	7—	1 2 3 4	0 6	1 2 3 4	1 4
1 2 3	8—	1 2 3 4	0 7	1 2 3 4	1 5

NOTE also that a separate timer power supply is needed when using the schedule timer independently.
Power supply specs: DC 16V, +10%, -15%, 200mA.
Recommended power supply: Omron S82J-01015A. (Should be used with the output voltage adjusted to the center, DC 16V.)

(3) Settings when recovering from a power outage (SW2-4)

This selects whether to restart operation when the power comes back on after a power outage occurred during operation. This setting is given priority in cases where the indoor unit has an auto start ON / OFF jumper. Note also that regardless of whether switch SW2-4 is on or off, the operating mode, set temperature, fan direction and speed settings, and remote control prohibition status are stored.

SW2-4 setting	What Happens
OFF (Factory setting)	Stops after recovering from a power outage
ON	Stops if the unit was stopped before the power outage and runs if it was running.

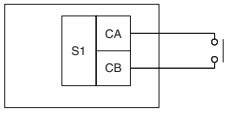
(4) Contact input function settings (SW3-1 to SW3-2)

When using contact input (S1), choose one of the following functions.

S1 operating mode	SW3-1 setting	SW3-2 setting	What Happens	Control mode
Instantaneous contact input (factory setting)	OFF	OFF	The operating status of the air conditioner is reversed by an instantaneous input of 100 msec or more.	Last command priority
Constant contact input		ON	Contact - Open to close: air condition runs. Close to open: air conditioner is stopped (NOTE 1.).	ON / OFF control is rejected (operate / stop / timer prohibition) (NOTE 2.).
Forced stop or remote controller permission input	ON	Invalid	Contact - Open to close: air condition stops (forced stop). Close to open: no change in operating status.	During a forced stop, all remote controller actions are prohibited.

Note:

1. Since centralized control equipment and HA JEM-A-compatible equipment both use last command priority, the contact status and operating status of the air conditioner might not match sometimes.
   Example: If the unit is run from the centralized control equipment while the air conditioner is stopped with an open contact, the contact will be open and the unit will be running.
2. Operating mode and fan direction and speed settings can be changed.



Run / stop Input
Contact specs
No-voltage minute electric current contact
(Minimum applicable load DC 12V, 1mA or lower)

Total wire length max: 100m

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<Control Codes>

When using the centralized control equipment, the operating codes can be used to limit operation from wireless remote controllers.

○ : permitted; ×: prohibited

S1 operating mode	Control mode	Control code	Operations from the remote controller								Operations from the centralized control equipment, contact input and HA JEM-A input
			"Run" control from the centralized control equipment				"Stop" control from the centralized control equipment				
			Run / timer	Stop	Operating mode temperature	Fan direction and fan speed	Run / timer	Stop	Operating mode temperaturet	Fan direction and fan speed	
Instantaneous contact mode	ON / OFF control is rejected	0,1,3	×	×	○	○	×	×	○	○	○
		10,11	×	×	×		×	×	×		
	Only OFF control is accepted	2 12–19	×	○	×		×	○	×		
	Central priority	4	○	○	○		×	○	×		
		5	○	○	○		×	×	○		
	Last command priority	6,7	○	○	○		○	○	○		
	Timer operation is accepted by remote controller	8	○ (Only during timer operation)	○	○		×	○	×		
		9	○ (Only during timer operation)	○	○		×	×	○		
Constant contact mode			×	×	○		×	×	○		
Forced stop			×	×	×	×	×	×	×	×	

The remote controller permission / prohibition settings using the intelligent Touch Manager are as follows.

○ : permitted; ×: prohibited

S1 pin operating mode	intelligent Touch Manager settings			Operations from the remote controller				Operations from the centralized control equipment, contact input and HA JEM-A input
	Start / stop	Change operating mode	Change set temperature	Run / timer	Stop	Operating mode temperature	Fan direction and fan speed	
Instantaneous contact mode • Constant contact mode	ON / OFF control is rejected	permitted	permitted	×	×	○	○	○
			prohibited	×	×	○		
		prohibited	permitted	×	×	×		
			prohibited	×	×	×		
	Only OFF control is accepted	permitted	permitted	×	×	○		
			prohibited	×	○	×		
		prohibited	permitted	×	○	×		
			prohibited	×	○	×		
Instantaneous contact mode	Last command priority	permitted	permitted	○	○	○		
			prohibited	○	○	○		
		prohibited	permitted	×	○	×		
			prohibited	×	○	×		
Constant contact mode		permitted	permitted	×	×	○		
			prohibited	×	×	○		
		prohibited	permitted	×	×	×		
			prohibited	×	×	×		
Forced stop	Does not affect settings			×	×	×	×	

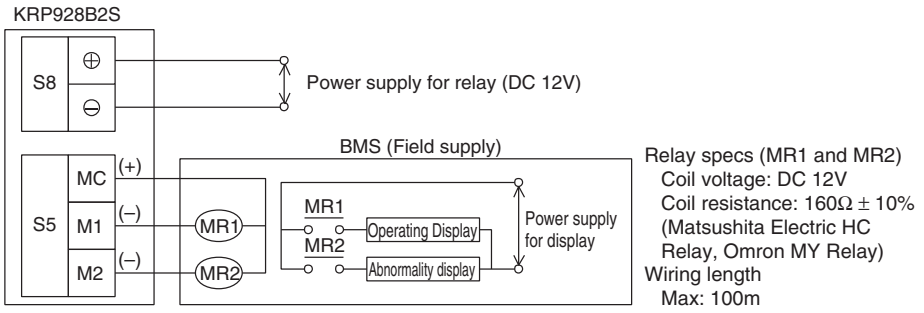
<Read Operating / Error Display Signal>

The Operating / error signals can be read from the contact output (S5).

Output specs

M1: Turn MR 1 ON when the air conditioner is running.

M2: Turn MR 2 when a communication error has occurred between the KRP928B2S and the air conditioner, or MR 1 is ON and the unit has stopped after an error.
MR 2 is not turned ON during a warning.



C: 3P157704-2A