

**FUJITSU**

# **AIRSTAGE® J-SERIES**

SINGLE AND THREE-PHASE  
VRF HEATING AND  
COOLING SYSTEMS



VRF MULTI-ZONE HEAT Pumps FOR RESIDENTIAL AND COMMERCIAL APPLICATIONS



**AIRSTAGE® J-III S**

AOU36RLAVS  
AOU48RLAVS



**AIRSTAGE® J-II**

AOU36RLAVM  
AOU48RLAVM  
AOU60RLAVM



**AIRSTAGE® J-III L**

AOU72RLAVL  
AOU96RLAVL  
AOU120RLAVL

# AIRSTAGE®

Backed by advanced technology, these compact single or three-phase VRF Systems were developed to meet three key requirements:



Energy Efficiency



Easy Installation



Optimum Comfort

## Overview

- Single or three-phase 208-230 VAC, 60 Hz
- Connectable indoor unit capacity range: 50% to 150%
- Room by room zoning
- 13 indoor unit styles to choose from ranging in size from 4,000 to 96,000 BTU/h depending on outdoor unit chosen
- Total system capacity modulation
- High part-load efficiency
- Long refrigerant line lengths
- Integration with Fujitsu V-Series systems
- LonWorks, BACnet and Modbus options
- Up to 10-year warranty on compressor parts



## OUTDOOR UNITS LINEUP

J-IIS Series	J-II Series	J-III Series
 <p>3-Ton: AOU36RLAVS 1-6 IDU 4-Ton: AOU48RLAVS 1-8 IDU</p>	 <p>3-Ton: AOU36RLAVM 1-6 IDU 4-Ton: AOU48RLAVM 1-8 IDU 5-Ton: AOU60RLAVM 1-9 IDU</p>	 <p>6-Ton: AOU72RLAVL 1-18 IDU 8-Ton: AOU96RLAVL 1-24 IDU 10-Ton: AOU120RLAVL 1-30 IDU</p>

## INDOOR UNITS LINEUP

TLAV/TLAV1: Heat Recovery/ Heat Pump  
RLAV: Heat Pump

### 13 Types 58 Units

<b>Compact Cassette<sup>1</sup></b> 	4,000 BTUh AUUA4TLAV1	7,000 BTUh AUUA7TLAV AUUA7RLAV*	9,000 BTUh AUUA9TLAV AUUA9RLAV*	12,000 BTUh AUUA12TLAV AUUA12RLAV*	14,000 BTUh AUUA14TLAV AUUA14RLAV*	18,000 BTUh AUUA18TLAV	24,000 BTUh AUUA24TLAV AUUA24RLAV*
<b>4-Way Cassette<sup>2</sup></b> 	18,000 BTUh AUUB18TLAV AUUB18RLAV*	24,000 BTUh AUUB24TLAV	30,000 BTUh AUUB30TLAV	36,000 BTUh AUUB36TLAV			
<b>Circular Flow Cassette</b> 	18,000 BTUh AUUB18TLAV1	24,000 BTUh AUUB24TLAV1	30,000 BTUh AUUB30TLAV1	36,000 BTUh AUUB36TLAV1	48,000 BTUh AUUB48TLAV1		
<b>Slim Compact Duct</b> 	4,000 BTUh ARUL4TLAV1	7,000 BTUh ARUL7TLAV	9,000 BTUh ARUL9TLAV	12,000 BTUh ARUL12TLAV ARUL12RLAV*	14,000 BTUh ARUL14TLAV ARUL14RLAV*	18,000 BTUh ARUL18TLAV	
<b>Medium Static Pressure Duct</b> 	24,000 BTUh ARUM24TLAV	30,000 BTUh ARUM30TLAV ARUM30RLAV*	36,000 BTUh ARUM36TLAV ARUM36RLAV*				
<b>High Static Pressure Duct</b> 	36,000 BTUh ARUH36TLAV	48,000 BTUh <sup>3</sup> ARUH48TLAV ARUH48RLAV*	60,000 BTUh <sup>3</sup> ARUH60TLAV	72,000 BTUh <sup>4</sup> ARUH72TLAV	96,000 BTUh <sup>4</sup> ARUH96TLAV		
<b>Vertical Air Handler Floor Mount</b> 	12,000 BTUh ARUV12TLAV	18,000 BTUh ARUV18TLAV	24,000 BTUh ARUV24TLAV	30,000 BTUh ARUV30TLAV	36,000 BTUh ARUV36TLAV	48,000 BTUh <sup>3</sup> ARUV48TLAV	60,000 BTUh <sup>3</sup> ARUV60TLAV
<b>Floor/Ceiling</b> 	4,000 BTUh AGUA4TLAV1	7,000 BTUh AGUA7TLAV1	9,000 BTUh AGUA9TLAV1	12,000 BTUh AGUA12TLAV1	14,000 BTUh AGUA14TLAV1		
<b>Floor/Ceiling</b> 	12,000 BTUh ABUA12TLAV	14,000 BTUh ABUA14TLAV ABUA14RLAV*	18,000 BTUh ABUA18TLAV	24,000 BTUh ABUA24TLAV			
<b>Ceiling</b> 	30,000 BTUh ABUA30TLAV	36,000 BTUh ABUA36TLAV ABUA36RLAV*					
<b>Compact Wall Mounted</b> 	7,000 BTUh ASUA7TLAV*	9,000 BTUh ASUA9TLAV* ASUA9RLAV*	12,000 BTUh ASUA12TLAV*	14,000 BTUh ASUA14TLAV* ASUA14RLAV*			
<b>Wall Mounted</b> 	4,000 BTUh ASUA4TLAV1	7,000 BTUh ASUA7TLAV1	9,000 BTUh ASUA9TLAV1	12,000 BTUh ASUA12TLAV1	14,000 BTUh ASUA14TLAV1		
<b>Wall Mounted</b> 	18,000 BTUh ASUB18TLAV*	24,000 BTUh ASUB24TLAV*					
<b>Wall Mounted</b> 	18,000 BTUh ASUB18TLAV1	24,000 BTUh ASUB24TLAV1	30,000 BTUh ASUB30TLAV1	36,000 BTUh ASUB36TLAV1			
<b>Outdoor Air Unit</b> 	48,000 BTUh <sup>3</sup> AAUA48TLAV	72,000 BTUh <sup>4</sup> AAUA72TLAV	96,000 BTUh <sup>4</sup> AAUA96TLAV				

\*While supplies last. 1. Compact Cassette Grille UTG-CCGV sold separately. Must order one with each Compact Cassette. 2. Cassette Grille UTG-LCGV sold separately. Must order one with each Cassette. 3. J-Series compatibility is dependent on outdoor unit capacity. 4. Not compatible with J-Series.

# J-SERIES FEATURES

## ADVANCED HIGH EFFICIENCY TECHNOLOGY

### J-IIS



#### LARGE HEAT EXCHANGER

Heat exchange performance is substantially improved by adding a 3rd row to the heat exchanger and includes a pre-coated fin material for added corrosion protection.

#### DC INVERTER CONTROL

Efficiency is improved by mounting of new active filter module.

#### HIGH EFFICIENCY DC FAN MOTOR

Using low noise dual DC fan motors offers better control and efficiency.

#### LARGE PROPELLER FAN

High performance and low noise realized by large propeller and optimization of angle.

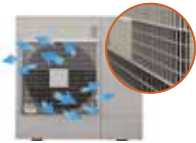
#### HIGH EFFICIENCY DC TWIN ROTARY COMPRESSOR

DC twin rotary compressor provides great performance under all load conditions. Its performance is optimized for part-load operation.

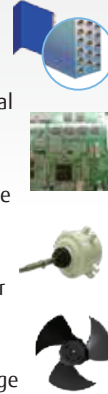
#### HIGH EFFICIENCY SCROLL COMPRESSOR

### SMOOTH AIRFLOW GRILLE

This grille was aerodynamically designed for good efficiency with little airflow loss.



### J-II & J-IIIIL



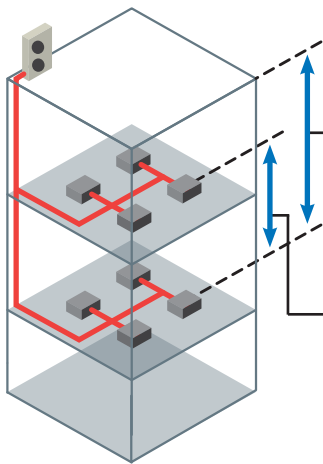
#### SUBCOOL HEAT EXCHANGER



Cooling performance is improved by utilizing a subcooled heat exchanger providing subcooling up to 36°F

## LONG PIPING LENGTH

Broad range of installation by long piping capability.



Height difference between outdoor and indoor units:

#### J-IIS:

98ft. (30m) max.

#### J-II & J-IIIIL:

O.U. is higher than I.U. - 164ft. (50m) max.

O.U. is lower than I.U. - 131ft. (40m) max.

Height difference between indoor units:

J-IIS & J-II: 49ft. (15m) max.

J-IIIIL: 164ft. (50m) max.

Piping length from first separation tube to the farthest indoor unit:

J-IIS & J-II: 131ft. (40m) max.

J-IIIIL: 295ft. (90m) max.

Actual piping length:

J-IIS: 164ft. (50m) max.

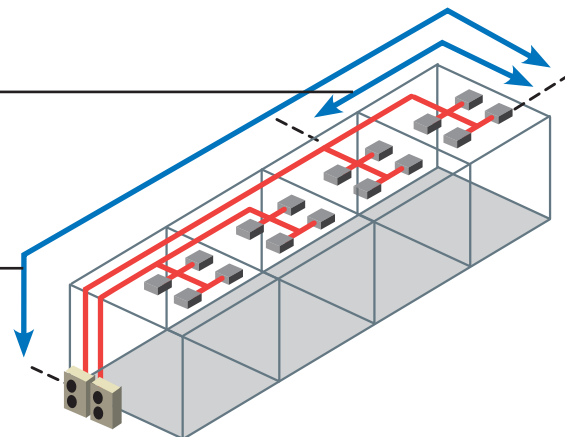
J-II & J-IIIIL: 393ft. (120m) max.

### Total Pipe Length:

J-IIS: 262 ft. (80m) max.

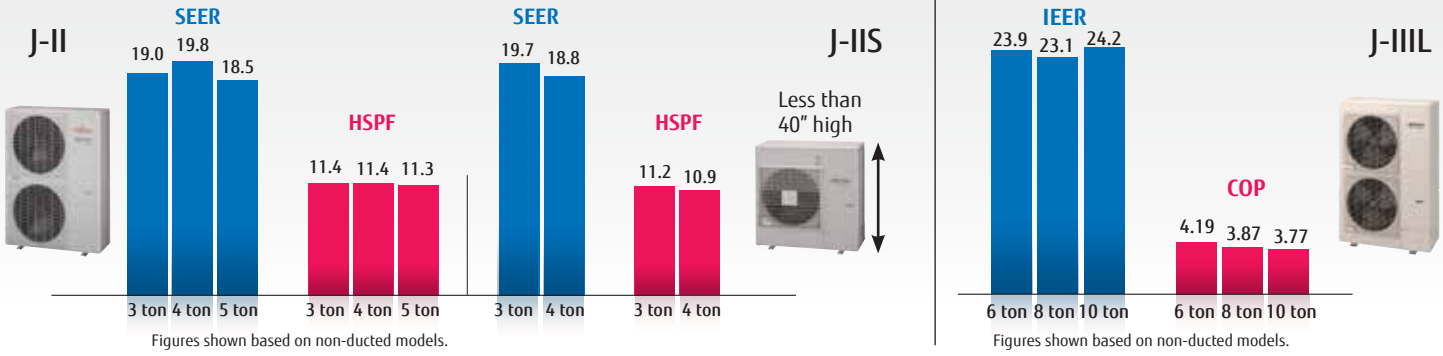
J-II: 590 ft. (180m) max.

J-IIIIL: 1312 ft. (400m) max.



## ENERGY EFFICIENCY

J-Series Systems provide the highest efficiency for any single-phase VRF.



The following systems are Energy Star qualified:

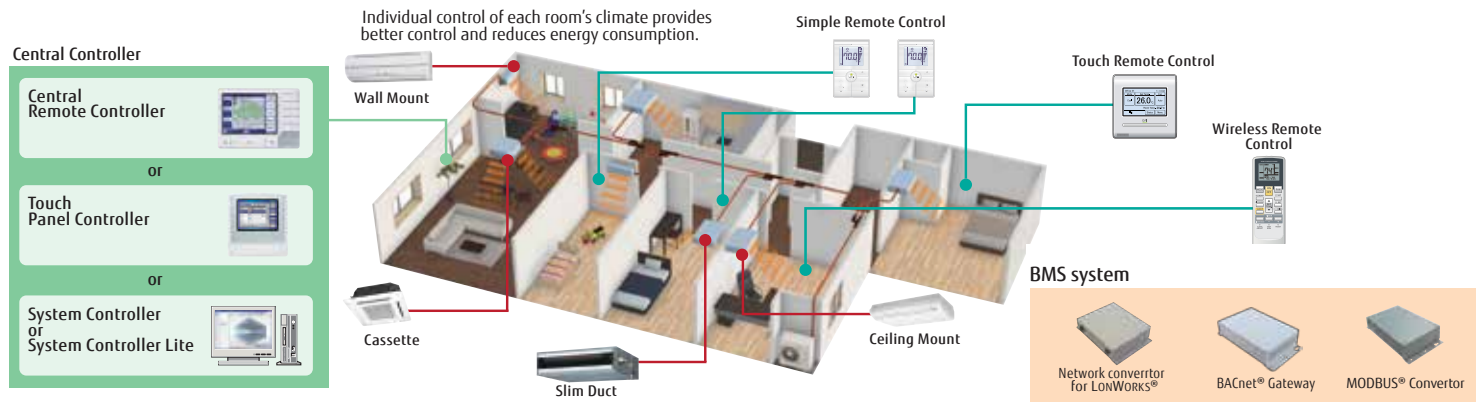
AOU36RLAVM - Ducted Indoor Units

AOU36RLAVM - Non-Ducted Indoor Units

AOU36RLAVM - Mixed Ducted and Non-Ducted Indoor Units

AOU48RLAVM - Non-Ducted Indoor Units

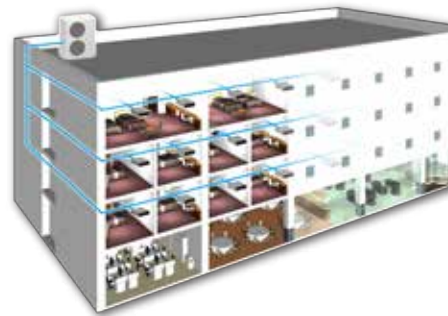
## OPTIMUM COMFORT THROUGH ZONING AND ADVANCED CONTROLS



## PERFECT FOR SMALL SPACES

J-III L Systems: Up to 30 units can be connected

Small but powerful indoor units combined with the new J-III L outdoor unit to reach an industry leading maximum of up to 30 indoor units.



Max. connectable Indoor Unit
10Ton : 30 units
8Ton : 24 units
6Ton : 18 units

## REMOTES AND CONTROLLERS

REMOTES						CONTROLLERS					BMS/BAS*
UTY-RNRU22	UTY-RNKU	UTY-RSRY	UTY-RHRY	UTY-LNHU	FJ-RC-WIFI-1NA	UTY-DCGY	UTY-DCGYZ1	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1	SBC100

\*1 "Operation mode" setting is not available for this model.

## SPECIFICATIONS

Nominal system capacity		Ton	J-IIS		J-II		
			3	4	3	4	5
Model name			AOU36RLAVS	AOU48RLAVS	AOU36RLAVM	AOU48RLAVM	AOU60RLAVM
Indoor unit connectable capacity ratio			50% to 130%	50% to 130%	50% to 130%	50% to 130%	50% to 130%
Maximum connectable indoor unit			1-6	1-8	1-6	1-8	1-9
Power source		Ø / V / Hz	1-Phase, 208 / 230V, 60Hz		1-Phase, 208 / 230V, 60Hz		
Cooling Capacity (Non-Ducted/Ducted)	Capacity	Btu/h	36,000	48,000	36,000	48,000	60,000
	EER	Btu/h/W	11.8 / 11.2	9.6 / 9.1	13.3 / 12.5	12.5 / 11.8	10.8 / 10.4
	SEER	Btu/h/W	19.7 / 17.4	18.8 / 16.9	19.0 / 17.0	19.8 / 18.1	18.5 / 16.5
Heating Capacity (Non-Ducted/Ducted)	Capacity	Btu/h	42,000	54,000	42,000	54,000	66,000
	COP	W/W	3.74 / 3.56	3.54 / 3.36	3.82 / 3.86	3.88 / 3.64	3.65 / 3.60
	HSPF	W/W	11.2 / 10.3	10.9 / 10.1	11.4 / 10.4	11.4 / 10.9	11.3 / 11.0
Airflow rate		CFM (m3/h)	2,378 (4,040)	2,472 (4,200)	3,649 (6,200)	3,767 (6,400)	4,827 (8,200)
Sound pressure level	Cooling/Heating	dB(A)	52 / 54	53 / 55	50 / 52	51 / 53	57 / 57
Dimensions	Height	in.(mm)	39-5/16 (998)		52-1/2 (1,334)		
	Width		38-3/16 (970)		38-3-16 (970)		
	Depth		14-9/16 (370)		14-9/16 (370)		
Weight		lbs.(kg)	190 (86)		260 (118)	260 (118)	269 (122)
Connection pipe diameter	Liquid	in.(mm)	3/8 (9.52)		3/8 (9.52)		
	Gas		5/8 (15.88)		5/8 (15.88)	5/8 (15.88)	3/4 (19.05)
Max.Total pipe length		ft.(m)	262 (80)		590 (180)		
Max. actual pipe length (OU to furthest IU)			164 (50)		393 (120)		
Max.height difference (Outdoor Unit: Upper/Lower)			98/98 (30/30)		164 / 131 (50/40)		
Operation range	Cooling	°F(°C)	23 to 115 (-5 to 46)		23 to 115 (-5 to 46)		
	Heating		-4 to 70 (-20 to 21)		-4 to 70 (-20 to 21)		
Refrigerant type			R410A		R410A		

Note : Specifications are based on the following conditions.

Cooling : Indoor temperature of 80°F (26.7°C)DB / 67°F (19.4°C)WB, and outdoor temperature of 95°F (35°C)DB / 75°F (23.9°C)WB.

Heating : Indoor temperature of 70°F (21.1°C)DB / 60°F (15.6°C)WB, and outdoor temperature of 47°F (8.3°C)DB / 43°F (6.1°C)WB.

Pipe length : 25ft. (7.5m), Height difference : 0ft. (0m). (Outdoor unit - indoor unit)

Nominal system capacity		Ton	J-IIIIL		
			6	8	10
Model name			AOU72RLAVL	AOU96RLAVL	AOU120RLAVL
Indoor unit connectable capacity ratio			50% to 150%		
Maximum connectable indoor unit			1-18	1-24	1-30
Power source		Ø/V/Hz	208/230V, 3-Phase, 60Hz		
Capacity (Non-Ducted/Ducted)	Capacity	Btu/h	72,000	96,000	120,000
	EER	Btu/h/W	12.1/11.9	11.6/11.6	11.6/11.6
	IEER	-	23.9/21.5	23.1/21.1	24.2/20.9
Capacity (Non-Ducted/Ducted)	Capacity	Btu/h	81,000	108,000	135,000
	COP at 47°F	W/W	4.19/4.01	3.87/3.66	3.77/3.64
Airflow rate		CFM(m³/h)	5,298(9,000)	6,475(11,000)	7,653(13,000)
Sound pressure level	Cooling/Heating	dB(A)	54/55	59/60	62/63
Dimensions	Height	in.(mm)	64-1/2(1,638)		
	Width		42-1/2(1,080)		
	Depth		18-7/8(480)		
Weight		lbs.(kg)	470(213)		
Connection pipe diameter	Liquid	in.(mm)	3/8(9.52)	3/8(9.52)	1/2(12.70)
	Gas		3/4(19.05)	7/8(22.20)	1-1/8(28.58)
Max.Total pipe length		ft.(m)	1312(400)		
Max. actual pipe length (OU to furthest IU)			393 (120)		
Max.height difference (Outdoor Unit: Upper/Lower)			164/131(50/40)		
Operation range	Cooling	°F(°C)	5*1 to 115 (-15*1 to 46)	5*1 to 115 (-15*1 to 46)	23*1.2 to 115 (-5*1.2 to 46)
	Heating		-4 to 70(-20 to 21)	-4 to 70(-20 to 21)	-4 to 70(-20 to 21)
Refrigerant type			R410A		

Note: Specifications are based on the following conditions:

Cooling: Indoor temperature of 80°F (26.7°C)DB / 67°F (19.4°C)WB, and outdoor temperature of 95°F (35°C)DB / 75°F (23.9°C)WB.

Heating: Indoor temperature of 70°F (21.1°C)DB / 60°F (15.6°C)WB, and outdoor temperature of 47°F (8.3°C)DB / 43°F (6.1°C)WB.

Pipe length: 25ft. (7.5m), Height difference: 0ft. (0m). (Outdoor unit - indoor unit)

\*1 When the outdoor unit is lower than the indoor unit, the temperature range is 23°F(-5°C).

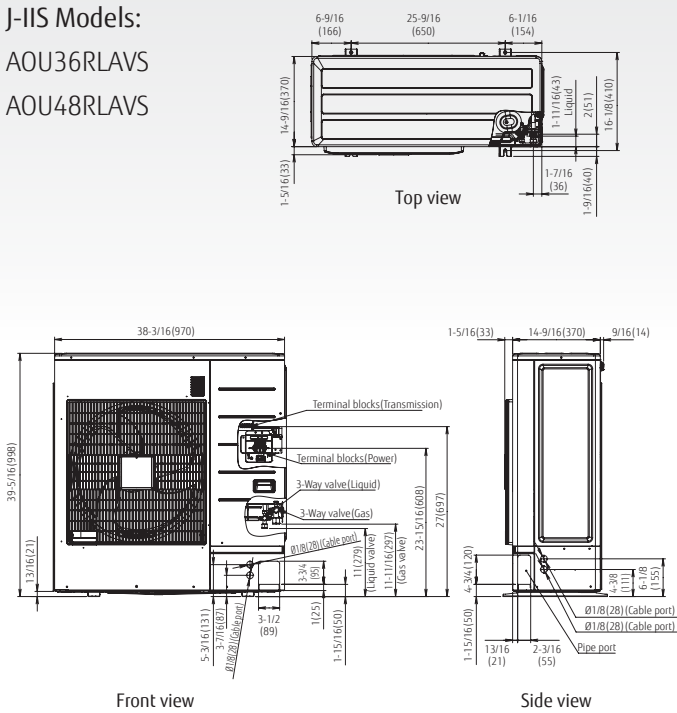
\*2 The cooling operation range of 5 to 115°F(-15 to 46°C) is allowed only when all of the indoor units connected to the system are higher than capacity of 18000Btu/h(5.6kW).

## DIMENSIONS

### J-IIS Models:

AOU36RLAVS

AOU48RLAVS



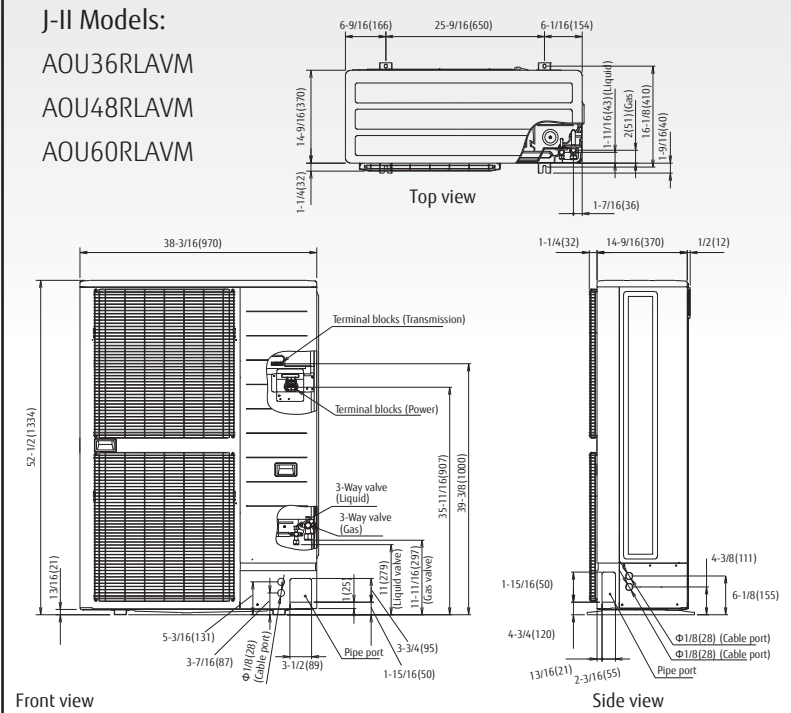
Unit : in. (mm)

### J-II Models:

AOU36RLAVM

AOU48RLAVM

AOU60RLAVM

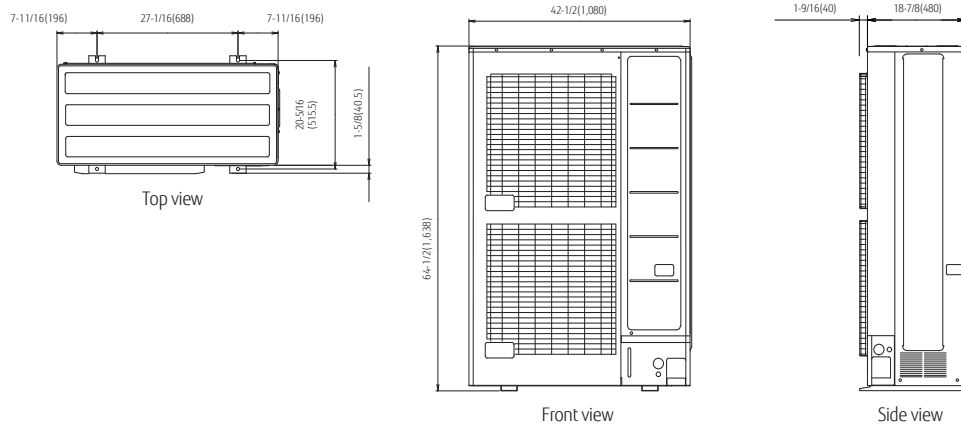


### J-III Models:

AOU72RLAVL

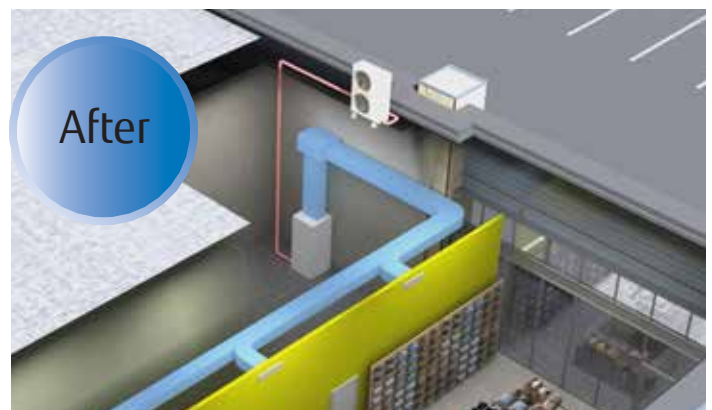
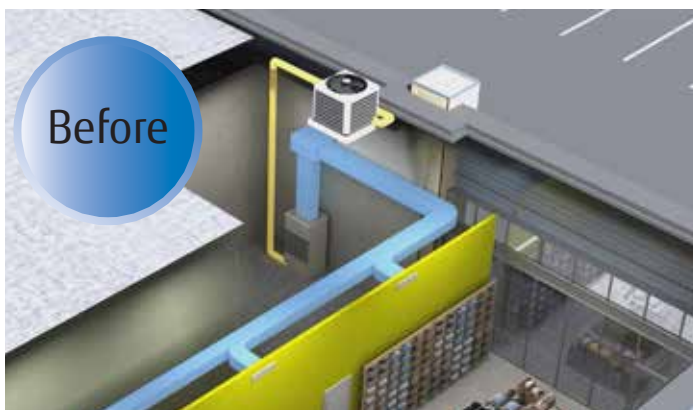
AOU96RLAVL

AOU120RLAVL



## DUCTED SYSTEM REPLACEMENTS MADE EASY

By replacing a traditional ducted furnace or air handler with a Fujitsu Vertical Air Handler and replacing the outdoor condensing unit with a J-Series condenser, you can improve the efficiency while providing a system that can provide both heating and cooling. Also, by making this replacement you can add Vertical Air Handlers to new spaces or address problems that weren't previously receiving proper heating or cooling.



## APPLICATIONS

### RESIDENTIAL

J-Series multi-room systems are a great fit for homes, multi-tenant buildings, retrofit and new construction applications. Each room can be turned into a temperature-controlled zone to meet the needs of all occupants. Some indoor units can be on and others off - so homeowners are only paying to heat and cool the rooms being used.



### COMMERCIAL

Space-saving design and long piping lengths allow for flexible installation on roofs or balconies of small and medium-size buildings. These systems are ideal for commercial applications such as offices, restaurants, stores, hotels, dorms, in retrofit and new construction.



- Office Buildings
- Places of Worship
- Schools
- Nursing Homes
- Hospitals/Medical Facilities
- Restaurants/Bars
- Hotels/Motels
- Municipal Buildings
- Retail Locations
- Warehouses
- Dorms
- Computer/Server Rooms

Distributed by:



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