

FUJITSU

Variable Refrigerant Flow Systems

**Heat Pump** J-IIIL 208-230V / 3-Phase J-IIS 208-230V / 1-Phase J-II 208-230V / 1-Phase V-II 208-230V, 460V / 3-Phase Heat Recovery VR-II 208-230V, 460 / 3-Phase FUJITSU FUJITSU FUJITSU AIRSTAGE AIRSTAGE AIRSTAGE **AIRSTAGE** AIRSTAGE FUITSU AIRSTAGE AIRSTAGE

# Creation of Comfort



FUJITSU GENERAL'S VRF AIRSTAGE Series has been developed based on our long-term air conditioning technology know-how that was first introduced 18 years ago. Since then, the Airstage series has been serving the market's HVAC needs in applications ranging from large residential to commercial in addition to a large variety of other installations.

Fujitsu General creates high-quality and environmentally-friendly products that provide a comfortable environment by using its continually improving air conditioning technology, innovation and creativity, which we started over 35 years ago.

### High Quality Development and Production Environment

The Headquarters-JAPAN R&D Center is equipped with a wide range of testing equipment envisioning a variety of operating conditions. We provide high quality & reliable products that meet the customers' needs from all over the world through this advanced R&D center and 6 factories based in China and Thailand.

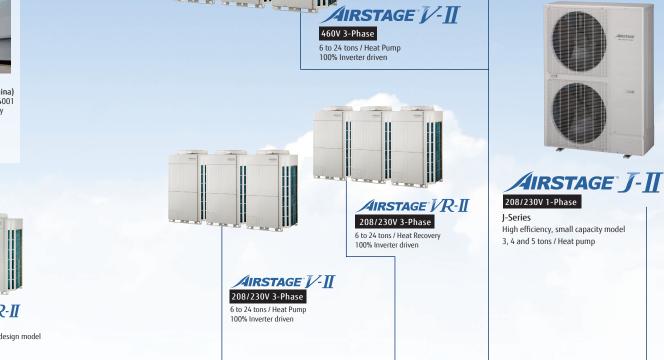


JAPAN R&D center and 198 ft. (60m) height testing tower (Kawasaki, Japan) Central R&D center for global air conditioner development. Advanced products are developed and next deperation technologies are researched.

FUJITSU GENERAL CENTRAL AIR-CONDITIONER(WUXI)CO.,LTD(China) VRE Main factory IS09001 and IS014001

certified. This factory has high quality and high reliability systems for manufacturing VRF systems





The survey

AIRSTAGE V-T AIRSTAGE VR-I VR-II series V-II series High efficiency and compact design model High efficiency and compact design model V series 6 to 24 tons / Heat Recovery Extensive lineup from 6 to 24 tons S series 8 tons / Heat recovery 6 to 30 tons / Heat pump 8 tons / Heat recovery 6, 8 tons / Heat pump in 2 ton increments / Heat pump & Heat pump & Cooling 2001 2003 2006 2009 2013 History of Environmental Measures Green Initiatives **RoHS** Compliant Green Advancement **Certification Acquisition of** Restriction of Hazardous Substances is an EU directive intended Use of 100% inverter driven ujitsu introduces inverter technology to protect the environment by forcing manufacturers to use and the use of environmentally DC compressors. iendly R410A refrigerant. ntally friendly materials in all consumer electronic RoHS INVERTER 1998 : Fujitsu General (Shanghai) Co., Ltd. 1999 : Fujitsu General (Thailand) co..Ltd. 2002 : FGA(Thailand) Co., Ltd. 2006 : Fujitsu General Central Air-conditioner (Wuxi) co.,Ltd.



J-Series High efficiency, medium capacity model 6, 8, 10 tons / Heat pump







208/230V 1-Phase J-Series High efficiency, small capacity model 3, 4 tons / Heat pump



AIRSTAGE VR-1

460V 3-Phase

100% Inverter driven

6 to 24 tons / Heat Recovery

2019

## A World Leader in Heating and Cooling Solutions

### Support Team

Fujitsu features an expert team of Regional Sales Managers and Sales Engineers located around North America to provide customer support. Additionally, blended Rep Agencies support Plan and Spec Consulting Engineers, as well as wholesale distribution, to provide product knowledge and support. We pride ourselves in having one of the most educated and gualified teams in the HVAC industry.



### **Technical Support**

The Fujitsu support experience is top notch and our highly trained technicians are equipped with the tools and resources to answer any question that may come your way. Fujitsu offers remote technical support, and when needed, can dispatch local support to solve field issues. Our Tech support wait time is the lowest in the industry with the highest level of expertise and limited return calls.

Wireless phone headsets provide mobility to techs so they can physically access any tools they may need to solve the problem.

Installed equipment allows techs to simulate situations contractors have in the field, making calls go faster and smoother.

Quality Control is pertinent to customer satisfaction. Every piece of equipment that is sent back to Fujitsu is tested and evaluated, bringing our failure rate to a record low .01%.

### **Research & Development**

The Headquarters-R&D Center (Japan) is equipped with a wide range of testing equipment envisioning a variety of operating conditions. This includes a testing tower with a 197ft. (60m) height difference for buildings. We provide high quality & reliable products that meet the customers' needs from all over the world through this advanced R&D Center and 6 factories based in China and Thailand.





### Variable Refrigerant Flow System For Small and Large Buildings

- Extensive lineup from 3 to 24 tons
- Connectable capacity ratio up to 150%
- 62 different indoor units available in 12 styles
- Up to 63 indoor units per one VRF system
- Three outdoor V-Series units may be combined with twinning kits to create up to 24 tons
- 10-Year Parts and Compressor Warranty See Warranty Statement for details
- Connect up to 36 tons of indoor units to a single VRF refrigerant circuit.
- Extensive training for Engineers, Architects, Contractors and Distributors

## High Efficiency & Reliability



### TABLE OF CONTENTS

### **FEATURES**

High Energy Efficiency	6
Design Versatility	7
Easy Installation	8
High Reliability	
Comfort & Convenience	
Easy Service & Maintenance	

### MODEL LINEUP

Indoor and Outdoor Model Table ...... 12

### **OUTDOOR UNITS**

J-II & J-IIS Heat Pump Models, 208-230V / 1-Phase	14
J-IIIL Heat Pump, 208-230V / 3-Phase	18
V-II Heat Pump Models, 208-230V, 460V	20
VR-II Heat Recovery Models, 208-230V, 460V	24

### INDOOR UNITS

Compact Cassette	28
Large 4-way Cassette	
Large Circular Flow Cassette	
Slim Compact Duct	34
Medium Static Pressure Duct	
High Static Pressure Duct (ARUH36, 48, 60)	38
High Static Pressure Duct (ARUH72, 96)	40
Vertical Air Handler	42
Floor Mount	44
Floor/Ceiling	46
Ceiling	
Compact Wall Mounts	
Wall Mounts	
Compact Wall Mount (Limited Quantities)	54

### **FRESH AIR**

Outdoor Air Unit	58
Ventacity Systems	60

### **CONTROL SYSTEMS & TOOLS**

Control System Overview	62
Remotes & Controllers Features Table	64
SBC100 Smarter Building Controller	65
Remote Controls	67
Central Controllers	72
Accessories	
BMS Communication Options	83
Service & Design Tools.	85
Cypetherm	

### **PIPING ACCESSORIES & OPTIONAL PARTS**

92
93
94
96
9

### **RESOURCES / APPLICATIONS**

Resources	98
Facilitiy Applications	99
Commercial Financing	
Warranty and General Info	



### HIGH ENERGY EFFICIENCY

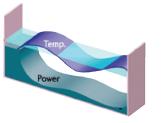
7-SERIES V-Series

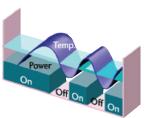
### All inverter compressor

Airstage outdoor units are equipped with DC Inverter Control of compressors. Inverter control is like having cruise control for your heating and cooling system. DC twin rotary compressors only run as fast as they need to handle the cooling or heating demand. This provides smoother and more stable operation while improving comfort and reducing energy consumption.

#### Inverter Benefits

- Soft start resulting in low inrush current
- High efficiency operation
- Lower RPM = quieter operation
- Built in protections improve compressor life





**Inverter System** 

**Conventional System** 

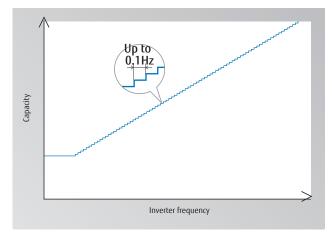
### Large capacity DC inverter compressor

Large capacity high efficiency DC twin rotary compressor with excellent part load performance.



### High efficiency compressor speed control

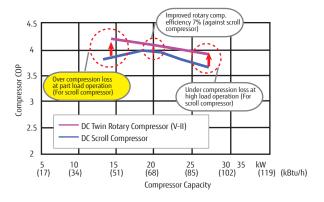
Provides comfort by making small temperature changes. This reduces energy usage by controlling the compressor speed in 1000 increments.



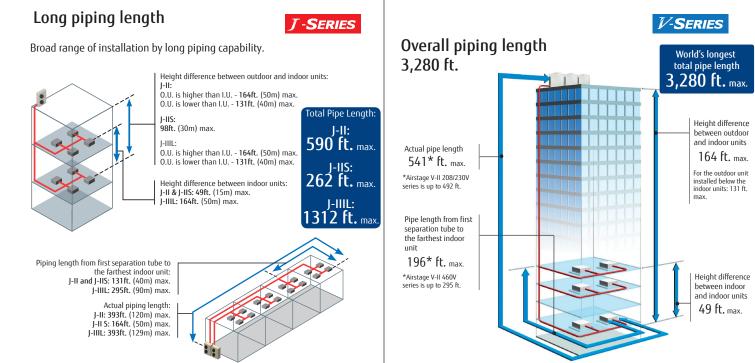
### Single Twin Rotary Compressor

Some manufactures use scroll compressors, or multiple compressors consisting of one variable and one fixed. Using this older technology makes the outdoor unit heavier and more expensive.

Fujitsu uses twin rotary technology which is more efficient with up to 7% improved COP over older scroll compressors.

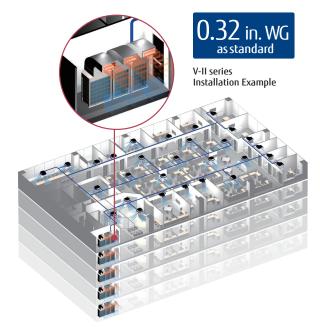


### DESIGN VERSATILITY



### High static pressure

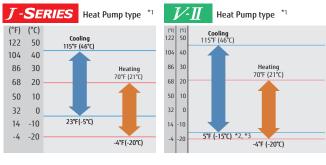
Outdoor unit static pressure is adjustable up to 0.32 in WG. This facilitates mechanical room and hood installations.

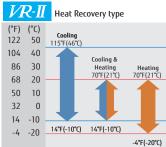


High static pressure is achieved using large diameter fan and a DC motor.

### Wide operating range

Installation in wide temperature conditions is possible due to an increase in operational range.

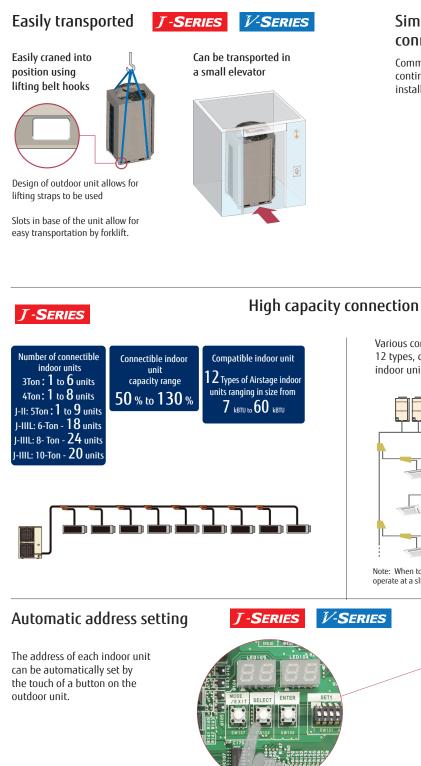




- \*1 VRF Heat Pump system operates in non-simultaneous heating or cooling.
- \*2 Operation range based on a single condensing unit; when multiple condensing units are used on a single refrigerant circuit (12 ton thru 24 ton) the cooling lower operating range is limited to 23°F (-5°C).
- \*3 When cooling operation will be required at outdoor air temperature below 23°F (-5°C), the outdoor unit must be installed higher than or equal to the elevation of the indoor units.



### EASY INSTALLATION



### Simple signal line connection

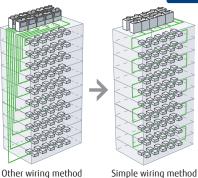


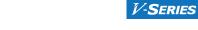
Up to maximum

length 11,811 ft /

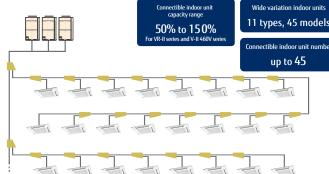
3,600 m

Communication wiring can be connected continuously to any component, making installation easier.

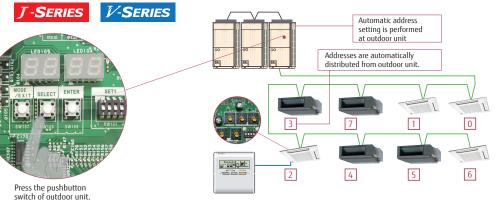




Various combinations from 6 Tons to 24 Tons with 62 indoor unit models, 12 types, can be selected. A minimum of 50% to a maximum of 150% indoor unit connectible capacity.



Note: When total indoor unit capacity is greater than 100%, individual indoor units will operate at a slightly lower capacity when maximum capacity is required.



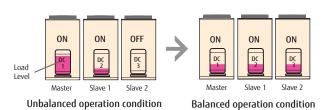
Manual address setting from indoor unit and remote controller is also possible.

### HIGH RELIABILITY

### Refrigerant circulation control

V-Series

Innovative compressor control logic balances refrigerant flow rate of each outdoor unit by controlling inverter speed.



Life-extending operation

### V-Series

### Lead outdoor unit rotation

Oil return design

through solenoid valve.

Individual oil separator and intelligent

connected directly to the compressor

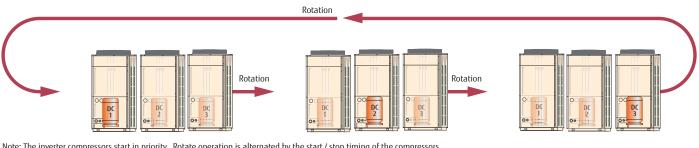
Capilla

suction line through capillary and

Oil return pipe of oil separator is

oil feedback operation logic are adopted.

The rotation of the lead outdoor unit provides equal runtime for all units, extending equipment life.



Note: The inverter compressors start in priority. Rotate operation is alternated by the start / stop timing of the compressors.

### **7-SERIES**

### Liquid back-flow protection

refrigerant, which is not completely accumulator.

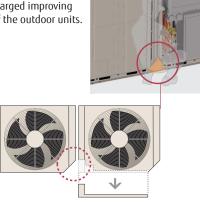


Compressor under operation



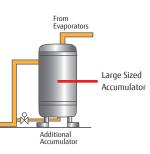


By adopting a removable L-Shape front panel, working space is greatly enlarged improving installation and servicing of the outdoor units.





By adopting a large sized accumulator, the vaporized, is left inside the accumulator and only a stable supply of gas is fed from the



### Blue fin heat exchanger

Blue fin treatment to the outdoor unit's heat exchanger improves corrosion resistance.



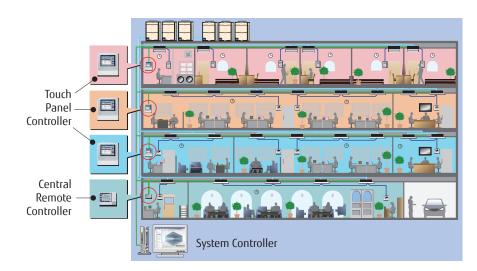


### COMFORT AND CONVENIENCE



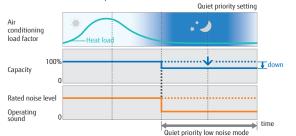
### **Centralized** Control

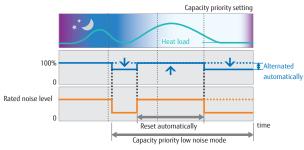
Fujitsu Airstage offers a variety of individual remotes and centralized controllers. Each provides users with a set of features to meet different needs.



### Quiet operation

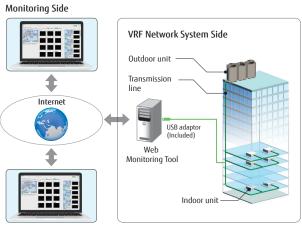
Low noise mode: Two low noise modes can be selected automatically using quiet priority setting or capacity priority setting, depending on the usage environment and outside temperature load.





#### Remote monitoring

Web Monitoring option brings remote Internet access to view system operation ensuring trouble free operation.



The operating VRF network system in the building can be monitored in real time over the Internet.

### **EASY SERVICE & MAINTENANCE**

### Designed for easy service and maintenance

Inspection and replacement of main parts is simple due to innovative construction and an LED operational display.



Consolidated electrical components make maintenance easy



Movable PCB panel that allows for easier maintenance work behind the PCB

Maintenance of electrical components, valves, and compressor parts from the front is possible.

Touch Remote Control

Error status can be checked
easily via the indoor unit
wired remote control

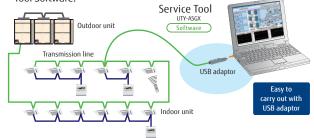
screen.

An error code is displayed on an LCD



### Troubleshooting using the Service Tool

Simplified troubleshooting and commissioning using Service Tool Software.



### Fujitsu Mobile Technician App

This free app is a handy, troubleshooting tool for heat pump and heat recovery systems. The app helps contractors troubleshoot error codes, thermistors and pressure sensors. It also includes a built-in flashlight. Fujitsu Mobile Technician is available as a troubleshooting system performance aid 24/7/365 and requires no phone call or waiting on hold.



Low noise design: Compressor noise has been significantly reduced by shielding the compressor compartment.





Easy-to-read 7-segment LED display which explains operational and error status



- Split front panel allows for maintenance from top or bottom of the outdoor unit

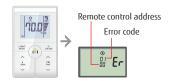
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Error status / Error history

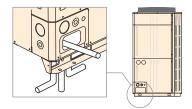
Back

#### Simple Remote Control



### Flexible piping connection

Piping and wiring are available through the front, left, right and bottom.





The Mobile Technician App requires iOS 6.0 or later and is compatible with iPhone, iPod touch and iPad, it's optimized for the iPhone 5. An Android version for 4.0 or later is also available through Google Play.

### **OUTDOOR UNITS LINEUP**

J-II Heat Pump Single Phase	230V Heat Pump	J-IIS H	leat Pump Jle Phase	230V Heat	Pump	J-IIIL Heat Pump	230V Heat Pump
Single Phase	36,000 BTUh (3 Tons) AOU36RLAVM 48,000 BTUh (4 Tons)	Sing	Jle Phase	36,000 BTUh AOU36RL 48,000 BTUh	AVS (4 Tons)	Three Phase	72,000 BTUh (6 Tons) AOU72RLAVL 96,000 BTUh (8 Tons)
	AOU48RLAVM 60,000 BTUh (5 Tons) AOU60RLAVM			AOU48RI	AVS		AOU96RLAVL 120,000 BTUh (10 Tons) AOU120RLAVL
V-II Heat Pump VR-II Heat Recovery	, 230V Heat P	ump	460V He	at Pump	230V I	leat Recovery	460V Heat Recovery
3-Phase	72,000 BTUh (6 AOUA72RLB			Jh (6 Tons) 72RLCV	· ·	) BTUh (6 Tons) DUA72TLBV	72,000 BTUh (6 Tons) AOUA72TLCV
	96,000 BTUh (8 AOUA96RLB		96,000 BTU AOUAS	Jh (8 Tons) 96RLCV	· ·	) BTUh (8 Tons) DUA96TLBV	96,000 BTUh (8 Tons) AOUA96TLCV
	120,000 BTUh (1 AOUA120RLE	,		120,000 BTUh (10 Tons) AOUA120RLCV		) BTUh (10 Tons) JUA120TLBV	120,000 BTUh (10 Tons) AOUA120TLCV
	144,000 BTUh (1 AOUA144RLB AOUA72RLB AOUA72RLB	VG1 V1	AOUA14 AOUA7	Jh (12 Tons) 4RLCVG 72RLCV 72RLCV	A0 A0	) BTUh (12 Tons) UA144TLBVG DUA72TLBV DUA72TLBV	144,000 BTUh (12 Tons) AOUA144TLCVG AOUA72TLCV AOUA72TLCV
	168,000 BTUh (1 AOUA168RLB AOUA72RLB AOUA96RLB	VG1 ( V1	AOUA16 AOUA7	Jh (14 Tons) 58RLCVG 72RLCV 96RLCV	A0 A0	D BTUh (14 Tons) UA168TLBVG DUA72TLBV DUA96TLBV	168,000 BTUh (14 Tons) AOUA168TLCVG AOUA72TLCV AOUA96TLCV
	192,000 BTUh (1 AOUA192RLB AOUA72RLB AOUA120RLB	VG1 V1	AOUA19 AOUA7	Jh (16 Tons) D2RLCVG 72RLCV 20RLCV	A0 A0	D BTUh (16 Tons) UA192TLBVG DUA72TLBV UA120TLBV	192,000 BTUh (16 Tons) AOUA192TLCVG AOUA72TLCV AOUA120TLCV
	216,000 BTUh (1 AOUA216RLB AOUA96RLB AOUA120RLB	VG1 ( V1	AOUA21 AOUA2	Jh (18 Tons)   6RLCVG 96RLCV 20RLCV	A0 A0	D BTUh (18 Tons) UA216TLBVG DUA96TLBV UUA120TLBV	216,000 BTUh (18 Tons) AOUA216TLCVG AOUA96TLCV AOUA120TLCV
	240,000 BTUh (2 AOUA240RLB AOUA120RLB AOUA120RLB	VG1 V1	AOUA24 AOUA1	Jh (20 Tons) €ORLCVG 20RLCV 20RLCV	AO AO	D BTUh (20 Tons) UA240TLBVG DUA120TLBV DUA120TLBV	240,000 BTUh (20 Tons) AOUA240TLCVG AOUA120TLCV AOUA120TLCV
	264,000 BTUh (2 AOUA264RLB AOUA72RLB AOUA96RLB AOUA96RLB	VG1 V1 V1	AOUA26 AOUA2 AOUA2	Jh (22 Tons) 54RLCVG 72RLCV 96RLCV 96RLCV	AO AO AO	D BTUh (22 Tons) UA264TLBVG DUA72TLBV DUA96TLBV DUA96TLBV DUA96TLBV	264,000 BTUh (22 Tons) AOUA264TLCVG AOUA72TLCV AOUA96TLCV AOUA96TLCV
	288,000 BTUh (2 AOUA288RLB AOUA96RLB AOUA96RLB AOUA96RLB	VG1 V1 V1	AOUA28 AOUA9 AOUA9	Jh (24 Tons) 38RLCVG 96RLCV 96RLCV 96RLCV 96RLCV	AO A(	D BTUh (24 Tons) UA288TLBVG DUA96TLBV DUA96TLBV DUA96TLBV DUA96TLBV	288,000 BTUh (24 Tons) AOUA288TLCVG AOUA96TLCV AOUA96TLCV AOUA96TLCV

### **OUTDOOR UNIT NOMENCLATURE**

	MODEL		MODEL INDOOR BODY STYLE CA		CAPACITY	ТҮРЕ		COMPRESSOR		VOLTAGE		CLASS		CODE		
AOU	Outdoor Unit		Smaller Chassis	BTUhs in	R =	R = Heat Pump		R = Heat Pump		Inverter Driven	A =	208/230-1	V =	VRF	G =	Group**
		A	Larger Chassis	Thousands	T =	Heat Recovery			B =	208/230-3			M=	Medium		
									C =	460-3			S=	Small		
													L=	Large		

AUUA4TLAV1 **AUUA7TLAV** AUUA7RLAV\* 4-Way 18,000 BTUh 24,000 BTUh Cassette<sup>2</sup> AUUB18TLAV AUUB24TLAV AUUB18RLAV\* **Circular Flow Cassette** 18,000 BTUh 24,000 BTUh AUUB18TLAV1 AUUB24TLAV1 Slim Compact Duct 4,000 BTUh 7,000 BTUh ARUL4TLAV1 ARUL7TLAV Medium Static Pressure Duct 24,000 BTUh 30,000 BTUh ARUM30TLAV ARUM24TLAV 0000 ARUM30RLAV\* High Static Pressure Duct 36,000 BTUh 48,000 BTUh<sup>3</sup> ARUH48TLAV ARUH36TLAV ARUH48RLAV\* 12,000 BTUh 18,000 BTUh ARUV12TLAV ARUV18TLAV Vertical Air Handler 📒 Floor Mount 7,000 BTUh 4,000 BTUh AGUA4TLAV1 AGUA7TLAV1 Floor/Ceiling 12,000 BTUh 14,000 BTUh ABUA14TLAV ABUA12TLAV ABUA14RLAV\* 30,000 BTUh 36,000 BTUh Ceiling ABUA30TLAV ABUA36TLAV ABUA36RLAV\* **Compact Wall Mounted** 7,000 BTUh 9,000 BTUh ASUA7TLAV\* ASUA9TLAV\* ASUA9RLAV\* 4,000 BTUh 7,000 BTUh ASUA4TLAV1 ASUA7TLAV1 Wall Mounted 18,000 BTUh 24,000 BTUh ASUB18TLAV\* ASUB24TLAV\* 18,000 BTUh 24,000 BTUh

ASUB18TLAV1 ASUB24TLAV1 Outdoor Air Unit 48,000 BTUh<sup>3</sup> 72,000 BTUh<sup>4</sup> <u>E</u>. AAUA48TLAV AAUA72TLAV

\*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

### **INDOOR UNIT NOMENCLATURE**

	Model		Indoor Body Style	Capacity	Capacity Type			Compressor	١	/oltage	C	lass
ASU	Wall Mount	А	Smaller Chassis	BTUhs in	R =	Heat Pump	L =	Inverter Driven	A =	208/230-1	V =	VRF
ABU	Universal/Ceiling	В	Larger Chassis	Thousands	T =	Heat Pump or						
ARU	Ducted	L	Low Static	(e.g.		Heat Recovery						
AUU	Cassette	М	Medium Static	4, 7, 9, 12,								
AAU	DOA	Н	High Static	14,18, 24,								
AGU	Floor Mount	V	Vertical Air Handler	etc.)								

\* 1, 2 or 3 at the end of a model number denotes a model revision. Please note models may not be combined with each other.

\*\*G is used in AHRI directory to refer to a Group of outdoor units, ex. AOUA168RLBVG is a grouping of one AOUA72RLBV and one AOUA96RLBV.

**INDOOR UNITS LINEUP** 4,000 BTUh

Compact

**Cassette**<sup>1</sup>

RLAV: Heat Pump 7,000 BTUh

TLAV/TLAV1: Heat Recovery/ Heat Pump

9,000 BTUh AUUA9TLAV AUUA9RLAV*	12,000 BTUh AUUA12TLAV AUUA12RLAV*	14,000 BTUh AUUA14TLAV AUUA14RLAV*	18,000 BTUh AUUA18TLAV	24,000 BTUh AUUA24TLAV AUUA24RLAV*
30,000 BTUh AUUB30TLAV	36,000 BTUh AUUB36TLAV			
30,000 BTUh AUUB30TLAV1	<b>36,000 BTUh</b> AUUB36TLAV1	48,000 BTUh AUUB48TLAV1		
9,000 BTUh ARUL9TLAV	12,000 BTUh ARUL12TLAV ARUL12RLAV*	14,000 BTUh ARUL14TLAV ARUL14RLAV*	18,000 BTUh ARUL18TLAV	
36,000 BTUh ARUM36TLAV ARUM36RLAV*				
60,000 BTUh <sup>3</sup> ARUH60TLAV	72,000 BTUh <sup>4</sup> ARUH72TLAV	96,000 BTUh <sup>4</sup> ARUH96TLAV		
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
9,000 BTUh AGUA9TLAV1	12,000 BTUh Agua12TLAV1	14,000 BTUh AGUA14TLAV1		
18,000 BTUh ABUA18TLAV	24,000 BTUh ABUA24TLAV			
12,000 BTUh	14,000 BTUh			
ASUA12TLAV*	ASUA14TLAV* ASUA14RLAV*			
9,000 BTUh ASUA9TLAV1	12,000 BTUh ASUA12TLAV1	14,000 BTUh ASUA14TLAV1		
30,000 BTUh	36,000 BTUh			
ASUB30TLAV1	ASUB36TLAV1			
96,000 BTUh⁴ AAUA96TLAV				

## HEAT PUMP **AIRSTAGE**° *J-***II***S* / *J-***II**

The J-Series provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

Connectable indoor unit capacity up to 130%.

A large number of J-Systems can be connected to a single VRF communication network offering a variety of central and remote communication and BMS options.

### Applications



Small Commercial Space-saving design and long piping design allow for flexible

installation on the roofs or balconies of small and mediumsize buildings.



### Large Residential

Multiple indoor units of various capacities and types can be connected.

### J-IIS OFFERS SPACE SAVING DESIGN

The compact size with a height of less than 3.3ft (1m) allows it to be installed under windows and in tight spaces

Small and light-weight outdoor unit

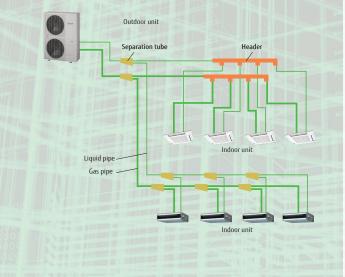


### J-II SYSTEM CONFIGURATION EXAMPLE

For 208 /230V

Single Phase

- The J-II system offers a long pipe length of 590 ft. total.
- Connection of multiple indoor units using separation tubes and headers.



### ADVANCED HIGH EFFICIENCY TECHNOLOGY J-IIS



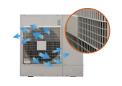
LARGE HEAT EXCHANGER Heat exchange performance is substantially improved by adding a 3rd row to the heat exchanger.

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.



This grille was aerodynamically

designed for good efficiency

**SMOOTH AIRFLOW** 

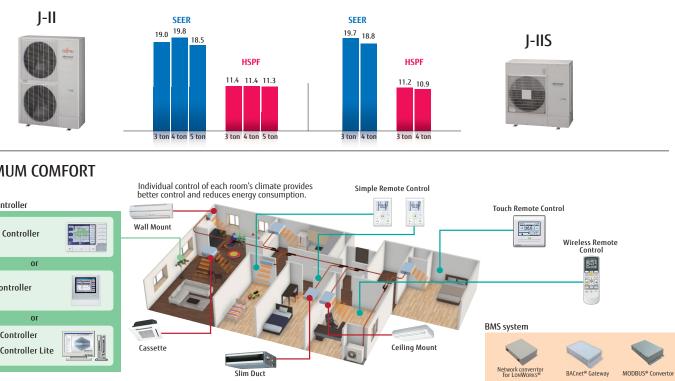
with little blow loss.

GRILLE

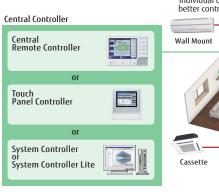
High efficiency Optimized refrigeran flow design -lighly accurate p

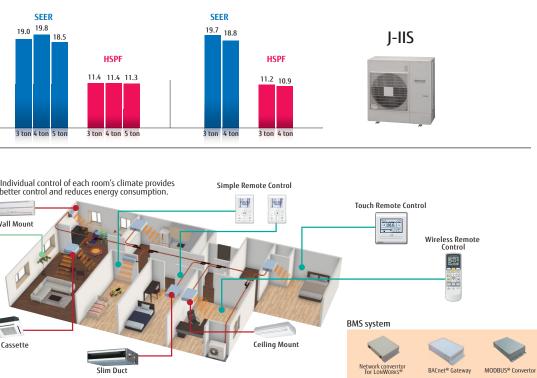


J-Series Systems provide the highest efficiency for any single-phase VRF. Figures shown based on non-ducted models.

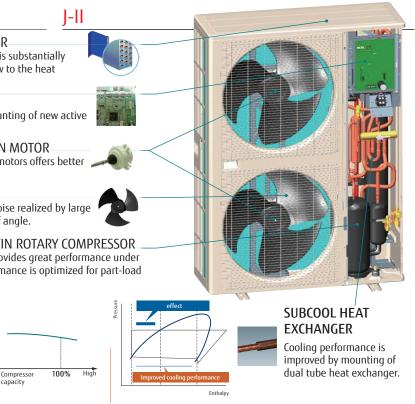


### **OPTIMUM COMFORT**





14



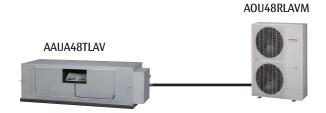


### **SPECIFICATIONS**

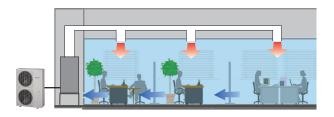
			J-1	IIS	J-II		
Nominal system capacity Ton		3	4	3	4	5	
Model name	•		AOU36RLAVS	AOU48RLAVS	AOU36RLAVM	AOU48RLAVM	AOU60RLAVM
Indoor unit connectable	e capacity ratio		50% to 130%	50% to 130%		50% to 130%	
Maximum connectable	indoor unit		1-6	1-8	1-6	1-8	1-9
Power source		V/Ø/Hz	1-Phase, 208	/ 230V, 60Hz		-Phase, 208 / 230V, 60Hz	2
	Capacity	Btu/h	36,000	48,000	36,000	48,000	60,000
Cooling Capacity (Non-Ducted/Ducted)	EER	Btu/h/W	11.8 / 11.2	9.6 / 9.1	13.3 / 12.5	12.5 / 11.8	10.8 / 10.4
(Non Ducted/Ducted)	SEER	Btu/h/W	19.7 / 17.4	18.8 / 16.9	19.0 / 17.0	19.8 / 18.1	18.5 / 16.5
	Capacity	Btu/h	42,000	54,000	42,000	54,000	66,000
Heating Capacity (Non-Ducted/Ducted)	СОР	W/W	3.74 / 3.56	3.54 / 3.36	3.82 / 3.86	3.88 / 3.64	3.65 / 3.60
(Non-Ducted/Ducted)	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
	Height		39-5/1	6 (998)	52-1/2 (1,334)		
Dimensions	Width	in.(mm)	38-3/16 (970)		38-3-16 (970)		
	Depth		14-9/1	6 (370)	14-9/16 (370)		
Weight		lbs.(kg)	194 (88)		262(119) 262 (119) 269 (122)		269 (122)
Connection pipe	Liquid	in.(mm)	3/8 (	9.52)	3/8 (9.52)		
diameter	Gas		5/8 (1	5.88)	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) ft.(m)		ft.(m)	164	(50)	393 (120)		
Max.height difference (Outdoor Unit: Upper/Lower) ft.(r		ft.(m)	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)	
Operation range	Heating	F(C)	-4 to 70 (	-20 to 21)		-4 to 70 (-20 to 21)	
Refrigerant type			R4	10A		R410A	

CONNECT TO DOAS

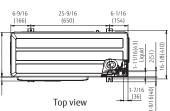
Use with DOAS to improve larger VRF system operation and increase overall building efficiency.

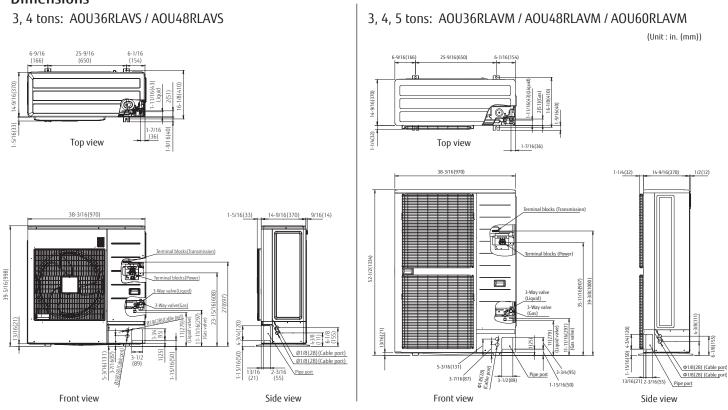


### EASILY RETROFITS EXISTING DUCTS



Dimensions





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)

VRF Communication Cable is required. It is shown on pg. 79

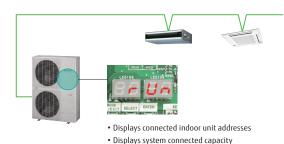
### LOW NOISE DESIGN

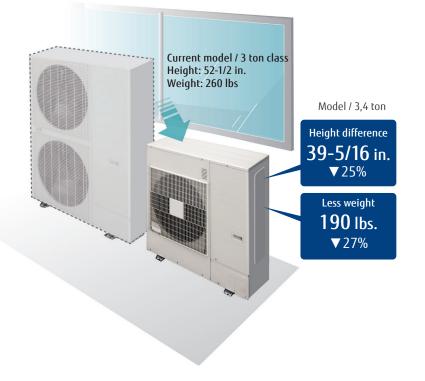
#### Low noise mode

Outdoor unit can be switched to silent mode, depending on the installation environment.



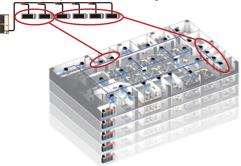
### **CONNECTION CHECK FUNCTION**



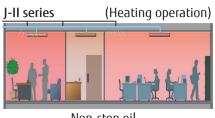


### **REFRIGERANT CONCENTRATION** LIMIT REDUCTION (ASHRAE 15)

Combine all small spaces on smaller refrigerant circuits.



### NON-STOP OIL RECOVERY OPERATION



Non-stop oil recovery operation

## HEAT PUMP J-IIL

Fujitsu General America provides perfect total air conditioning systems that take into account energy saving, low noise, comfortable airflow, small room application and centralized control for small-sized office buildings with many small rooms.

### Flexibile Installation



### Interior Installation

Quiet operation does not disturb residents This model features the fan on the front, which is about 39.4 in. (1000mm) wide, allowing flexible installation in narrow spaces.



### Installation in Alleys

The compact and narrow chassis allows the unit to be installed directly on the ground or mounted on a wall

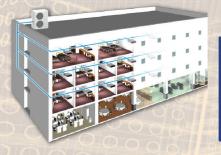


Curbside Installation The front side fan combined with the slim, compact design enable multiple systems to be installed without blocki vindows

### PERFECT FOR SMALL SPACES

#### Up to 30 units can be connected

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



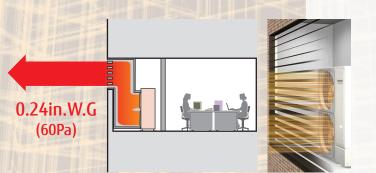
Max. connectable Indoor Unit 10Ton : 30units 8Ton: 24units 6Ton : 18units

### **HIGH STATIC PRESSURE**

For 208 /230V

Three Phase

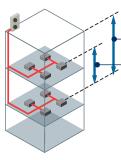
External static pressure is available up to 0.24in. W.G (60Pa).



### INSTALLATION FLEXIBILITY

#### Long Piping Length

Advanced refrigerant technology allows systems to reach a total refrigerant piping length of 1,312 ft (400m). This opens up new possibilities in system design.



Height difference between outdoor and indoor units



For the outdoor unit installed below the indoor units: 131ft. (40m) max.

Height difference between indoor and indoor units

Max.164ft. (50m)

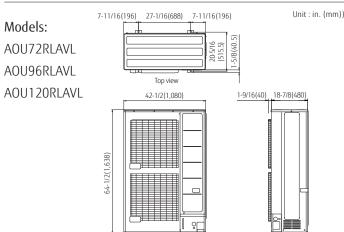
\*: Only when new indoor units and J-IIIL series are combined

### SPECIFICATIONS

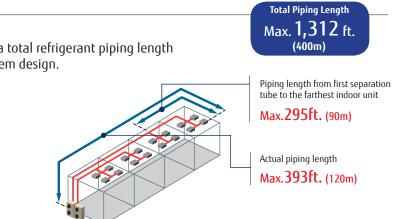
Nominal system capacity		Ton	6	8	10		
Model name			AOU72RLAVL	AOU96RLAVL	AOU120RLAVL		
Indoor unit connectable cap	acity ratio			50% to 150%			
Maximum connectable indo	or unit		1-18	1-24	1-30		
Power source		Ø/V/Hz		208/230V, 3-Phase, 60Hz	•		
	Capacity	Btu/h	72,000	96,000	120,000		
Capacity (Non-Ducted/Ducted)	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	Capacity	Btu/h	81,000	108,000	135,000		
(Non-Ducted/Ducted)	COP at 47°F	W/W	4.19/4.01	3.87/3.66	3.77/3.64		
Airflow rate		CFM(m <sup>3</sup> /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		
	Height		64-1/2(1,638)				
Dimensions	Width	in.(mm)		42-1/2(1,080)	42-1/2(1,080)		
-	Depth						
Weight		lbs.(kg)		470(213)			
	Liquid	:= ()	3/8(9.52)	3/8(9.52)	1/2(12.70)		
Connection pipe diameter	Gas	in.(mm)	3/4(19.05)	7/8(22.20)	1-1/8(28.58)		
Max.Total pipe length		ft.(m)		1312(400)			
Max.height difference (Outdoor Unit: Upper/Lower)				164/131(50/40)			
	Cooling	°E(°C)	5*1 to 115 (-15*1 to 46)	5*1 to 115 (-15*1 to 46)	23* <sup>1,2</sup> to 115 (-5* <sup>1,2</sup> to 46)		
Operation range	Heating	°F(°C)	-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). (0utdoor unit - indoor unit)

### DIMENSIONS



Front view



\*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(5.6kŴ).

### INDOOR UNIT AND CONTROLLER CONNECTIVITY



Wall Mounted

Mini Duct



JIII-L outdoor units can connect to:

- 13 types of indoor units 58 different models (Capacity ranges from 4,000 to 96,000 BTUh)
- Wi-fi enabled controllers









## **HEAT PUMP**

Smart and cutting edge design. Extensive lineup from 6 to 24-Tons in 2-Ton increments Connectable indoor unit capacity up to 150% A large number of Airstage systems can be connected to a single VRF communication network offering a variety of central and remote communication and BMS options.

### System Outline



#### Excellent energy savings

Heat pump inverter control improves system operation efficiency in part-load conditions when one or many indoor units are in operation.



#### Lower life-cycle cost

System operates with minimum energy usage. Only service the zones that need it, which allows for less required operating energy and maintenance.



#### Easy installation and maintenance

The flexible communication method and piping connections makes installation and maintenance easy even for large systems.

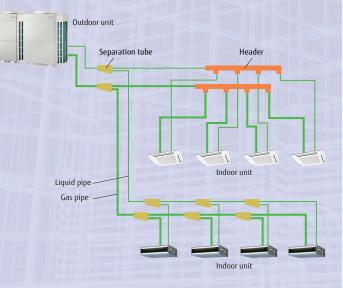


### SPECIFICATIONS



#### System configuration example

- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a highcapacity system.
- Connection of multiple indoor units using separation tubes and headers



For 208 /230V

3 Phase

For 460V

### ENERGY SAVING TECHNOLOGY THAT BOOSTS OPERATION EFFICIENCY



#### Powerful large propeller fan By using CFD\*1 technology, a newly designed fan achieves high performance and low noise operation. \*1. CFD = Computational Fluid Dynamics



### 3 phase DC fan motor

Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.



Subcool heat exchanger High Heat Exchange efficiency is achieved by using an internal projection shape double pipe



Sine-wave DC inverter control High efficiency is realized by adoption of reduced switching loss IPM.

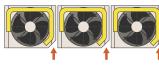


High efficient compressor Large capacity DC inverter compressor

Large capacity high efficient DC twin rotary compressor with excellent intermediate capability.

## 4-face heat exchanger

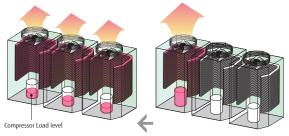
Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.





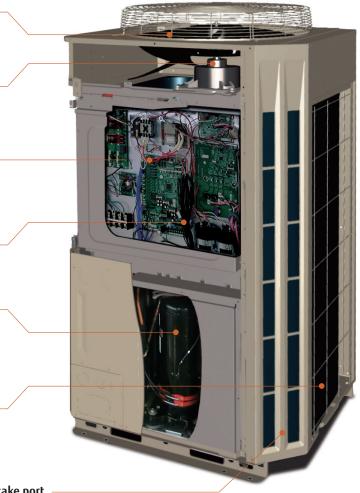
#### MULTIPLE OUTDOOR OPERATION CONTROL

When multiple outdoor units are connected a sophisticated operation is performed by each compressor. Rather than running one compressor at full load and distributing refrigerant to one heat exchanger, this control method operates all compressors at part load and distributes refrigerant to all of the heat exchangers which allows for the overall system efficiency to be improved.



High efficient operation

Inefficient operation

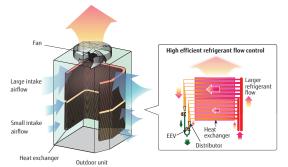


### (corner cut air inhaling structure)

In multiple outdoor unit installations, the unique front intake design improves airflow into the Heat Exchanger.

### HEAT EXCHANGER REFRIGERANT CONTROL

The heat exchanger in the outdoor unit is split into two parts (Top and Bottom). The efficiency of the heat exchanger has been improved by adopting an optimum refrigerant path control where the refrigerant is distributed more into the top heat exchanger as this is where there is a greater air flow intake.

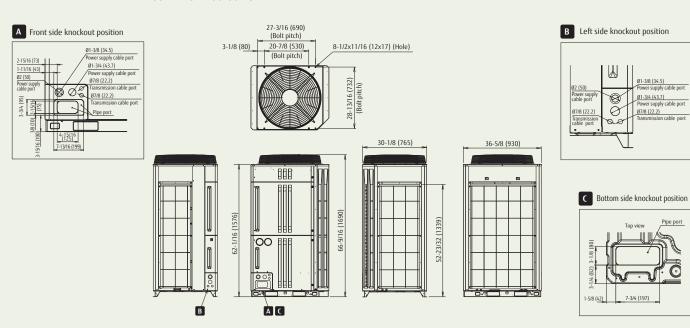




#### V-II Specifications for 208 / 230 / 460V

Nominal Tonage	Ton(s)	6	8	10	12	14
Model Name	Units	AOUA72RLBV1 / AOUA72RLCV	AOUA96RLBV1 / AOUA96RLCV	AOUA120RLBV1 / AOUA120RLCV	AOUA144RLBVG1 / AOUA144RLCVG	AOUA168RLBVG1 / AOUA168RLCVG
Unit Group Configuration		1×(AOUA72RLBV1) / 1×(AOUA72RLCV)	1×(AOUA96RLBV1) / 1×(AOUA96RLCV)	1×(AOUA120RLBV1) / 1×(AOUA120RLCV)	2×(AOUA72RLBV1) / 2×(AOUA72RLCV)	1×(AOUA96RLBV1) + 1×(AOUA72RLBV1) / 1×(AOUA96RLCV) + 1×(AOUA72RLCV)
ndoor Unit Total Capacity				50% to 150%	-	
Maximum Connectable Indoor Units		16	21	26	32	37
CAPACITY				1		
Nominal Cooling Capacity	BTUh [kW]	72,000 [21.1]	96,000 [28.1]	120,000 [35.2]	144,000 [42.2]	168,000 [49.2]
Cooling Power Input (Nominal)	kW	5.37 / 5.37	7.67 / 7.67	9.86 / 9.86	11.80 / 11.80	14.20 / 14.20
Nominal Heating Capacity	BTUh [kW]	81,000 [23.7]	108,000 [31.7]	135,000 [39.6]	162,000 [47.5]	188,000 [55.1]
leating Power Input (Nominal)	kW	5.39 / 5.39	7.90 / 7.90	10.19 / 10.19	12.81 / 12.81	14.69
LECTRIC	1		1	1		
Electrical Power Requirements			208/23	0 VAC, 3-Phase, 60Hz / <mark>460 VAC, 3-Ph</mark>	ase, 60Hz	
Maximum Circuit Breaker	A	50 / 25	50 / 25	60 / 30	2×(50/25)	2×(50/25)
Minimum Circuit Ampacity (MCA)	A	41 / 21	41 / 21	50 / 25	2X (41) / 2X (21)	2X (41) / 2X (21)
EFFICIENCY	· · · · ·			·	• • • • • • • •	
Cooling (Non-Ducted/Ducted)	EER	12.5 / 12.3	11.7 / 11.3	11.3 / 11.3	11.4 / 11.4	11.0 / 11.0
Cooling (Non-Ducted/Ducted)	IEER	24.1 / 20.0	23.6 / 20.2	23.8 / 20.1	22.2 / 20.4	22.2 / 20.0
Heating 47° (Non-Ducted/Ducted)	COP	4.06 / 3.64	3.72 / 3.60	3.61 / 3.49	3.44/3.44	3.48 / 3.48
TEMPERATURE						
Operating Temp. Cooling (DB)	°F [°C]	5 to 115 [-15 to 46]	5 to 115 [-15 to 46]	5 to 115 [-15 to 46]	23 to 115 [-5 to 46]	23 to 115 [-5 to 46]
Operating Temp. Heating (DB)	°F [°C]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]
PIPE	1				<u> </u>	
Pipe Connection: Liquid	in [mm]	1/2 [12.70]	1/2 [12.70]	1/2 [12.70]	1/2 [12.70]	5/8 [15.88]
Pipe Connection: Discharge Gas	in [mm]	7/8 [22.22]	7/8 [22.22]	1-1/8 [28.58]	1-1/8 [28.58]	1-1/8 [28.58]
REFRIGERANT					1	
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
Refrigerant Charge	lbs [kg]	25.79 [11.70]	25.79 [11.70]	26.01 [11.80]	2×(25.79[11.70])	2×(25.79[11.70])
FAN					1	
Fan Airflow Rate	CFM [m <sup>3</sup> /h]	6533 [11,100]	6533 [11,100]	7652 [13,000]	2×(6533 [11,100])	2×(6533 [11,100])
xternal Static Pressure (Max)	in.WG [Pa]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]
ound Pressure Levels (Cooling/Heating)	dB (A)	57/58	59/59	61 / 62	60/61	61/62
COMPRESSOR				·		
Compressor Type x Quantity		Rotary Inverter	Rotary Inverter	Rotary Inverter	2×Rotary Inverter	2×Rotary Inverter
Compressor Motor Output	kW	7.5	7.5	11.0	2×7.5	2×7.5
Compressor Crankcase Heater	W	2×35	2×35	2×35	2×(2×35)	2×(2×35)
DIMMENSIONS / WEIGHT			·		• • • • • • • • • •	
Dim.Net (HxWxD)	in (mm)	66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]	66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]	66-9/16 × 48-13/16 ×30-1/8 [1,690 × 1240 × 765]	2 × (66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765])	2 × (66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765])
Net Weight	lbs [kg]	564 [256] / <mark>584 [265]</mark>	564 [256] / <mark>584 [265]</mark>	611 [277] / 635 [288]	2×(564[256]) / 2×(584[265])	2×(564[256]) / <mark>2×(584[265])</mark>

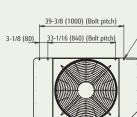
### SPECIFICATIONS 6, 8tons: A0UA72RLBV1 / A0UA96RLBV1 A0UA72RLCV / A0UA96RLCV

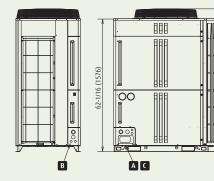


16	18	20	22	24
AOUA192RLBVG1 / AOUA192RLCVG	AOUA216RLBVG1 / AOUA216RLCVG	AOUA240RLBVG1 / AOUA240RLCVG	AOUA264RLBVG1 / AOUA264RLCVG	AOUA288RLBVG1 / AOUA288RLCVG
1×(AOUA120RLBV1) + 1×(AOUA72RLBV1) / 1×(AOUA120RLCV) + 1×(AOUA72RLCV)	1×(AOUA120RLBV1) + 1×(AOUA96RLBV1) / 1×(AOUA120RLCV) + 1×(AOUA96RLCV)	2×(AOUA120RLBV1) / 2×(AOUA120RLCV)	2×(AOUA96RLBV1) + 1×(AOUA72RLBV1) / 2×(AOUA96RLCV) + 1×(AOUA72RLCV)	3×(AOUA96RLBV1) / 3×(AOUA96RLCV)
		50% to 150%		
42	47	52	58	63
192,000 [56.2]	216,000 [63.3]	240,000 [70.3]	264,000 [77.4]	288,000 [84.4]
16.04	18.47	20.45	22.58	25.27
216,000 [63.3]	243,000 [71.2]	270,000 [79.1]	297,000 [87.0]	324,000 [95.0]
15.65	19.07	21.9	23.41	26.28
	208/230	) VAC, 3-Phase, 60Hz / <mark>460 VAC, 3-Pha</mark>	se, 60Hz	-
1×(50),1×(60) / 1×(25), 1×(30)	1×(50),1×(60) / 1×(25), 1×(30)	2×(60) / 2×(30)	3×(50) / <mark>3×(25)</mark>	3×(50) / <mark>3×(25)</mark>
IX (41), 1X (50) / <mark>1X (21), 1X (25)</mark>	1X (41), 1X (50) / 1X (21), 1X (25)	2X (50) / 2X (25)	3X (41) / <mark>3X (21)</mark>	3X (41) / <mark>3X (21)</mark>
11.2 / 11.1	10.9 / 10.9	10.9 / 10.9	10.9 / 10.9	10.6 / 10.6
24.3 / 20.5	20.0 / 19.2	20.8 / 20.2	20.8 / 20.1	20.8 / 20.1
3.75 / 3.57	3.47 / 3.47	3.36 / 3.36	3.45 / 3.40	3.36 / 3.31
23 to 115 [-5 to 46]	23 to 115 [-5 to 46]	23 to 115 [-5 to 46]	23 to 115 [-5 to 46]	23 to 115 [-5 to 46]
-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]
5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	3/4 [19.05]
1-1/8 [28.58]	1-3/8 [34.92]	1-3/8 [34.92]	1-3/8 [34.92]	1-3/8 [34.92]
R410A	R410A	R410A	R410A	R410A
1×(25.79[11.70]) + 1×(26.01[11.80])	1×(25.79[11.70]) + 1×(26.01[11.80])	2×(26.01[11.80])	3×(25.79[11.70])	3×(25.79[11.70])
. (2000[1100])	1 (20.01[11:00])			
1×(6533 [11,100]) + 1×(7652 [13,000])	1×(6533 [11,100]) + 1×(7652 [13,000])	2×(7652 [13,000])	3×(6533 [11,100])	3×(6533 [11,100])
0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]
62/63	63/64	64/65	63/63	64/64
2×Rotary Inverter	2×Rotary Inverter	2×Rotary Inverter	3×Rotary Inverter	3×Rotary Inverter
1×(7.5)+1×(11.0)	1×(7.5)+1×(11.0)	2×11.0	3×7.5	3×7.5
2×(2×35)	2×(2×35)	2×(2×35)	3×(2×35)	3×(2×35)
- ()	- ()		- ()	- (,
1×(66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]), 1×(66-9/16 × 48-13/16 × 30-1/8 [1,690 × 1240 × 765])	1×(66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]), 1×(66-9/16 × 48-13/16 × 30-1/8 [1,690 × 1240 × 765])	2×(66-9/16 × 48-13/16 × 30-1/8 [1,690 × 1240 × 765])	3×(66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765])	3×(66-9/16 × 36-5/8 × 30-1/4 [1,690 × 930 × 765])
564[256]+611[277] / 635[288]+584[265]	564[256]+611[277] / 635[288]+584[265]	2×([611[277]) / 2×(635[288])	3×([564[256])/3×(584[265])	3×([564[256]) / 3×(584[265]

DIMENSIONS 10tons: AOUA120RLBV1 AOUA120RLCV

0





#### 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 (35.0°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.

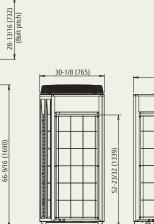
Pipe length : 25ft. (7.5 m); Height difference between outdoor unit and indoor unit : 0ft. (0 m).

\*1 Electrical data is only for outdoor unit.

#### VRF Communication Cable is required. It is shown on pg. 79

(UNIT: IN (MM))

8-1/2x11/16 (12x17) (Hole)





## **HEAT RECOVERY**

AIRSTAGE VR-II series

Smart, cutting edge design Extensive lineup from 6 to 24 tons in 2Ton increments Connectable indoor unit capacity up to 150% A large number of Airstage systems can be connected to a single VRF communication network offering a variety of central and remote communication and BMS options.

### Benefits



Simultaneous cooling and heating operation using 1 refrigerant system

Cooling and heating can be freely selected for each indoor unit to provide simultaneous cooling and heating in rooms with large temperature differences.



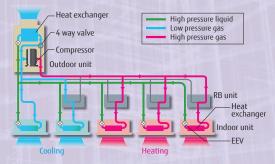
### Lower life-cycle cost

System operates with minimum energy usage. Only service the zones that need it, which allows for less required operating energy and maintenance.

Handles changes in temperature differences The operation mode can be freely changed when there are large temperature differences during the day.







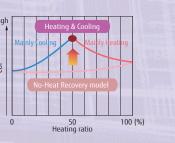
For 208 /230V

3 Phase

For 460V

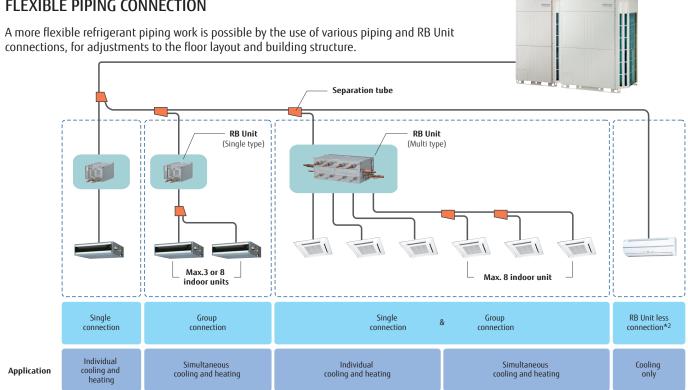
Our Heat recovery systems achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

Energy savings have been improved as heating and cooling modes can be operated at the same time on the same air conditioning piping system.



### FLEXIBLE PIPING CONNECTION

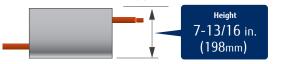
connections, for adjustments to the floor layout and building structure.



• The RB unit can be freely positioned between the first branch and the indoor unit. • The maximum height difference between RB units is 49ft.(15m). \*2. RB Unit is not necessary for cooling only use.

### FLEXIBLE INSTALLATION OF REFRIGERANT BRANCH (RB) UNIT

See specifications of RB units on pg 78.

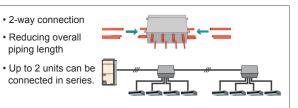


- Small & slim design saves space
- A drain pipe is not required
- The control box position can be changed to meet the installation conditions



Single RBUs offer flexible installation orientation to accomodate space requirements.

#### Simple installation series connection design

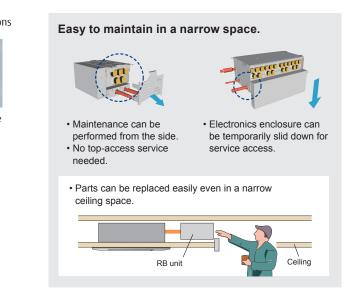




**RB unit** (single type)



**RB unit** (multi type)





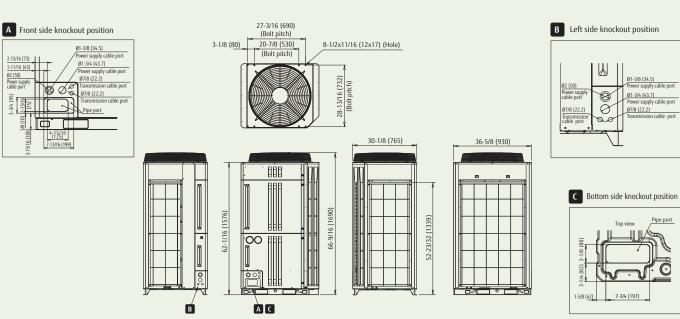
#### VR-II Specifications for 208 / 230 / 460V

Nominal Tonage	Ton(s)	6	8	10	12	14
Model Name	Units	AOUA72TLBV / AOUA72TLCV	AOUA96TLBV / AOUA96TLCV	AOUA120TLBV / AOUA120TLCV	AOUA144TLBVG / AOUA144TLCVG	AOUA168TLBVG / AOUA168TLCVG
Unit Group Configuration		1×(AOUA72TLBV) 1×(AOUA72TLCV)	1×(AOUA96TLBV) 1×(AOUA96TLCV)	1×(AOUA120TLBV) 1×(AOUA120TLCV)	2×(AOUA72TLBV) 2×(AOUA72TLCV)	1×(AOUA72TLBV) + 1×(AOUA96TLBV) 1×(AOUA72TLCV) + 1×(AOUA96TLCV)
Indoor Unit Total Capacity				50% to 150%		1
Maximum Connectable Indoor Units		14	16	18	22	26
CAPACITY						
Nominal Cooling Capacity	BTUh [kW]	72,000 [21.1]	96,000 [28.1]	120,000 [35.2]	144,000 [42.2]	168,000 [49.2]
Cooling Power Input (Nominal)	kW	5.31	7.56	9.75	11.69	14.03
Nominal Heating Capacity	BTUh [kW]	81,000 [23.7]	108,000 [31.7]	135,000 [39.6]	162,000 [47.5]	188,000 [55.1]
Heating Power Input (Nominal)	kW	5.35	7.82	10.11	12.73	13.93
ELECTRIC					•	
Electrical Power Requirements			208/23	0 VAC, 3-Phase, 60Hz / <mark>460 VAC, 3-Ph</mark>	ase, 60Hz	
Maximum Circuit Breaker	A	50 / <mark>25</mark>	50 / <mark>25</mark>	60 / <mark>30</mark>	2×(50) / 2×(25)	2×(50) / 2×(25)
Minimum Circuit Ampacity (MCA)	A	41 / 21	41 / 21	50 / <mark>25</mark>	2X (41) / 2X (21)	2X (41) / 2X (21)
EFFICIENCY			·	·		
Cooling (Non-Ducted/Ducted)	EER	12.5 / 12.3	11.7 / 11.3	11.3 / 11.3	11.4 / 11.4	11 / 11
Cooling (Non-Ducted/Ducted)	IEER	24.1 / 20	23.6 / 20.20	23.8 / 20.1	22.2 / 20.4	22.2 / 20
Heating 47° (Non-Ducted/Ducted)	COP	4.06 / 3.64	3.72 / 3.60	3.61 /3.49	3.44 / 3.44	3.48 / 3.48
SCHE (Non-Ducted/Ducted)	SCHE	30.1 / 24.00	26.5 / 25.5	25.4 / 25.8	22.2/22.2	22 / 22
TEMPERATURE						
Operating Temp. Cooling (DB)	°F [°C]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]
Operating Temp. Heating (DB)	°F [°C]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]
PIPE						
Pipe Connection: Liquid	in [mm]	1/2 [12.70]	1/2 [12.70]	1/2 [12.70]	1/2 [12.70]	5/8 [15.88]
Pipe Connection: Discharge Gas	in [mm]	5/8 [15.88]	3/4 [19.05]	3/4 [19.05]	7/8 [22.22]	7/8 [22.22]
Pipe Connec on: Suction Gas	in [mm]	7/8 [22.22]	7/8 [22.22]	1-1/8 [28.58]	1-1/8 [28.58]	1-1/8 [28.58]
REFRIGERANT						
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
Refrigerant Charge	lbs [kg]	26.01 [11.80]	26.01 [11.80]	26.01 [11.80]	2×(26.01 [11.80])	2×(26.01 [11.80])
FAN						
Fan Airflow Rate	CFM [m <sup>3</sup> /h]	6533 [11,100]	6533 [11,100]	7652 [13,000]	2×(6533 [11,100])	2×(6533 [11,100])
External Static Pressure (Max)	in.WG [Pa]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]
Sound Pressure Levels (Cooling/Heating)	dB (A)	57/58	59 / 59	61 / 62	60/61	61/62
COMPRESSOR						
Compressor Type x Quantity		Rotary Inverter	Rotary Inverter	Rotary Inverter	2×Rotary Inverter	2×Rotary Inverter
Compressor Motor Output	kW	7.5	7.5	11	2×7.5	2×7.5
Compressor Crankcase Heater	W	2×35	2×35	2×35	2×(2×35)	2×(2×35)
DIMMENSIONS / WEIGHT						
Dim.Net (HxWxD)	in (mm)	66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]	66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765]	66-9/16 × 48-13/16 ×30-1/8 [1,690 × 1240 × 765]	2 × (66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765])	2 × (66-9/16 × 36-5/8 × 30-1/8 [1,690 × 930 × 765])
Net Weight	lbs [kg]	597 [271] / <mark>609 [276]</mark>	597 [271] / 609 [276]	639 [290] / <mark>657 [298]</mark>	2X (597 [271]) / 2X (609 [276])	2X (597 [271]) / 2X (609 [276])

16	18	20	22	24
AOUA192TLBVG /	AOUA216TLBVG /	AOUA240TLBVG /	AOUA264TLBVG /	AOUA288TLBVG /
AOUA192TLCVG	AOUA216TLCVG	AOUA240TLCVG	AOUA264TLCVG	AOUA288TLCVG
1×(AOUA72TLBV) + 1×(AOUA120TLBV)	1×(AOUA96TLBV) + 1×(AOUA120TLBV)	2×(AOUA120TLBV) 2×(AOUA120TLCV)	1×(AOUA72TLBV) + 2×(AOUA96TLBV)	3×(AOUA96TLBV) 3×(AOUA96TLCV)
1×(AOUA72TLCV) +	1×(AOUA96TLCV) +	2~(AUUAI2UILUV)	1×(AOUA72TLCV) +	J~(X00X3012CV)
1×(AOUA120TLCV)	1×(AOUA120TLCV)		2×(AOUA96TLCV)	
		50% to 150%		
30	34	37	41	45
192,000 [56.2]	216,000 [63.3]	240,000 [70.3]	264,000 [77.4]	288,000 [84.4]
15.78	18.27	20.19	22.35	25
216,000 [63.3]	243,000 [71.2]	270,000 [79.1]	297,000 [87.0]	324,000 [95]
14.79	18.91	21.7	23.2	26.07
	200 ( 22			
1.(50) 1.(60) (1.(25) 1.(20)		0 VAC, 3-Phase, 60Hz / 460 VAC, 3-Ph		2(50) (2(25)
1×(50) , 1×(60) / 1×(25) , 1×(30)	1×(50) , 1×(60) / 1×(25) , 1×(30)	2×(60) / 2×(30)	2×(50) , 1×(60) / 3×(25)	3×(50) / 3×(25)
1X (41), 1X (50) / 1X (21), 1X (25)	1X (41), 1X (50) / 1X (21), 1X (25)	2X (50) / <mark>2X (25</mark> )	3X (41) / <mark>3X (21)</mark>	3X (41) / <mark>3X (21)</mark>
11.2 / 11.1	10.9 / 10.9	10.9 / 10.9	10.9 / 10.9	10.6 / 10.6
24.3 / 20.5	20 / 19.2	20.8 / 20.2	20.8 / 20.1	20.8 / 20.1
3.75/3.57	3.47 / 3.47	3.36/3.36	3.45/3.4	3.36 / 3.31
27.1/25	25.2 / 25.2	23.7 / 23.7	22.0/22.0	22.0 / 22.0
27.1725	23.2723.2	23.1123.1	22.0722.0	22.0722.0
14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]	14 to 115 [-10 to 46]
-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]	-4 to 70 [-20 to 21]
5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	5/8 [15.88]	3/4[19.05]
7/8 [22.22]	1-1/8 [28.58]	1-1/8 [28.58]	1-1/8 [28.58]	1-1/8 [28.58]
1-1/8 [28.58]	1-3/8 [34.92]	1-3/8 [34.92]	1-3/8 [34.92]	1-3/8 [34.92]
			1	
R410A	R410A	R410A	R410A	R410A
2×(26.01 [11.80])	2×(26.01 [11.80])	2×(26.01 [11.80])	3×(26.01 [11.80])	3×(26.01 [11.80])
			· · · · · · · · · · · · · · · · · · ·	
1×(6533 [11,100]) +	1×(6533 [11,100]) +	2×(7652 [13,000])	3×(6533 [11,100])	3×(6533 [11,100])
1×(7652 [13,000])	1×(7652 [13,000])			
0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]	0.32 [80]
62 / 63	63/64	64/65	63/63	64/64
2.0.1.		2.0.1	2.2.1	2. Data a la cata
2×Rotary Inverter 1×(7.5) + 1×(11)	2×Rotary Inverter 1×(7.5) + 1×(11)	2×Rotary Inverter 2×(11)	3×Rotary Inverter 3×7.5	3×Rotary Inverter 3×7.5
2×(2×35)	2×(2×35)	2×(11) 2×(2×35)	3×(2×35)	3×(2×35)
2^(2^))	(د د^ ۲) ۲	2^\(2^)	3^(2^33)	2^(2^))
1×(66-9/16 × 36-5/8 × 30-1/8	1×(66-9/16 × 36-5/8 × 30-1/8	2×(66-9/16 × 48-13/16 ×30-1/8	3×(66-9/16 × 36-5/8 × 30-1/8	3×(66-9/16 × 36-5/8 × 30-1/8
[1,690 × 930 × 765]),	[1,690 × 930 × 765]),	[1,690 × 1240 × 765])	[1,690 × 930 × 765])	[1,690 × 930 × 765])
1×(66-9/16 × 48-13/16 × 30-1/8	1×(66-9/16 × 48-13/16 × 30-1/8		*** **	* * *
[1,690 × 1240 × 765])	[1,690 × 1240 × 765])			
1X (597 [271]), 1X (639 [290]) /	1X (597 [271]), 1X (639 [290]) / 1X (609 [276]), 1X (657 [298])	2X (639 [290]) / 2X (657 [298])	3×(584 [265])3X (597 [271]) / 3X (609 [276])	3X (597 [271]) / 3X (609 [276])

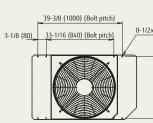
#### SPECIFICATIONS

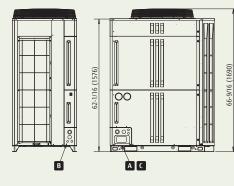
### 6, 8 tons: AOUA72RLBV1 / AOUA96RLBV1 AOUA72RLCV / AOUA96RLCV



### DIMENSIONS

### 10 tons: AOUA120RLBV1 AOUA120RLCV





### **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 (35.0°C) DB / 75°F (23.9°C) WB.

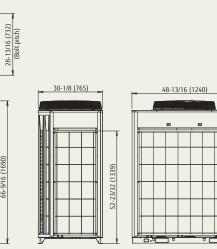
Heating : Indoor temperature of 70°F (21.1°C) DB / 60°F (15.6°C) WB, and outdoor temperature of 47°F (8.3°C) DB / 43°F (6.1°C) WB.

Pipe length : 25ft. (7.5 m); Height difference between outdoor unit and indoor unit : 0ft. (0 m).

\*1 Electrical data is only for outdoor unit.

(UNIT: IN (MM))

#### 8-1/2x11/16 (12x17) (Hole)





## **Compact Cassette**

AUUA4TLAV1 AUUA14TLAV AUUA7TLAV AUUA18TLAV AUUA9TLAV AUUA24TLAV AUUA12TLAV

Compact size panel design that fits in a standard 24" square ceiling panel (600 x 600mm)



Note: IR Receiver is standard for communicating with optional Wireless Remote Control.

Compact Cassette Grille UTG-CCGVG sold separately. Must order one with each compact cassette.

### 2-STAGE TURBO FAN

High efficiency design by 2 stage structure

2-stage turbo fan

Evenly spread air distribution across the heat exchanger is possible due to the 2 stage turbo fan which produces two separate airflow streams.



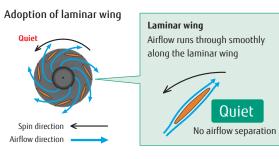
20%UP

Wind velocit Fast

### QUIET

Optimization of wing form (laminar wing type) and wing number (7 blades each)

Designed by Computational Fluid Dynamics (CFD) simulations



### IMPROVEMENT OF AIRFLOW DISTRIBUTION



#### • Easy maintenance of fan and motor

Access and maintenance of the fan and motor can be accomplished by removing the panel. The fan and motor can be easily removed. A : Fan motor B : 2-stage turbo fan C: Bell-mouth D: Grille Panel

**2** Air filter

standard equipment

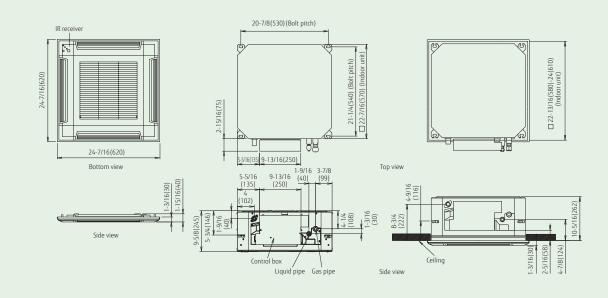
**3** Adaptation of transparent drainage parts During installation, maintenance and operation, the drain pump and kit can be checked easily.

#### **COMPACT DESIGN**

World's first 24,000 BTUh model in the compact cassette category (Easy installation by taking off 24" square ceiling panel (600 x 600mm)



### DIMENSIONS



### **SPECIFICATIONS**

Model			AUUA4TLAV1	AUUA7TLAV	AUUA9TLAV	AUUA12TLAV	AUUA14TLAV	AUUA18TLAV	AUUA24TLAV	
Power source				1 Phase ~ 208/230V 60Hz						
	Cooling	BTUh	4,000	7,500	9,500	12,000	14,000	18,000	24,000	
Capacitu	Cooling	kW	1.2	2.2	2.8	3.5	4.1	5.3	7.0	
Capacity	Uasting	BTUh	4,400	9,500	10,900	13,500	15,600	20,000	27,000	
	Heating	kW	1.3	2.8	3.2	4.0	4.6	5.9	7.9	
Input power		W	23	25	25	29	35	36	84	
	High		312 (530)	318 (540)	324 (550)	353 (600)	400 (680)	418 (710)	606 (1,030)	
Airflow rate	Med	CFM (m <sup>3</sup> /h)	265 (450) / 247 (420)	265 (450)	265 (450)	312 (530)	347 (590)	341 (580)	489 (830)	
	Low		206 (350) / 177 (300)	206 (350)	206 (350)	230 (390)	230 (390)	235 (400)	265 (450)	
	High	dB (A)	34	34	35	37	38	41	50	
Sound pressure level	Med		30 / 28	30	30	34	34	35	44	
ievei	Low	(//)	25 / 21	25	25	27	27	27	30	
Dimensions (H ×	W × D)	in.(mm)	9-5/8 × 22-7/16 × 22-7/16 (245 × 570 × 570)							
Weight		lbs.(kg)	32 (14.5)	33 (15)	33 (15)	33 (15)	33 (15)	37 (17)	37 (17)	
Connection	Liquid (Flare)		1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	
pipe diameter	Gas (Flare)	in.(mm)	3/8 (9.52)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)	
Drain hose diameter (I.D./O.U.)			3/4 / 1-1/16							
_	Model name					UTG-CCGVG				
Cassette Grille	Dimensions (H×W×D)	in.(mm)			1-15/16 × 24	-7/16 × 24-7/16 (49 × 6	620 × 620)			
Griffe	Weight	lbs.(kg)				5.1(2.3)				

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 95.0°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.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit). Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.

### HIGH LIFT DRAIN PUMP Ceiling panel Heiah 27-9/16i (700mm

Built-in high-loft drain pump

### HIGH CEILING MODE

AUUA12/14/18/24TLAV models only -The compact cassette can be installed up to a height of 9'10-1/8" ft. (3.0m)

BTUh	Max height from floor to ceiling (ft.(m))				
DIUII	Standard mode	High ceiling mode			
4,000	8'10-5/16"(2.7)	-			
7,000	8'10-5/16"(2.7)	-			
9,000	8'10-5/16"(2.7)	-			
12,000	8'10-5/16"(2.7)	9'10-1/8"(3.0)			
14,000	8'10-5/16"(2.7)	9'10-1/8"(3.0)			
18,000	8'10-5/16"(2.7)	9'10-1/8"(3.0)			
24,000	8'10-5/16"(2.7)	9'10-1/8"(3.0)			

22-7/16in \570mm

### **OPTIONAL PARTS**

Wired Remote Control	UTY-RNKU
Wired Remote Control (Touch Panel)	UTY-RNRUZ2
Wireless Remote Control	UTY-LNHU
Wi-Fi Interface Module	FJ-RC-WIFI-INA
Simple Remote Control	UTY-RSRY, UTY-RHRY
Air Outlet Shutter Plate	UTR-YDZB
Fresh Air Intake Kit	UTZ-VXAA
Insulation Kit for High Humidity	UTZ-KXGC

(UNIT: IN (MM))

29



## Large 4-Way Cassette

### AUUB18TLAV AUUB24TLAV AUUB30TLAV AUUB36TLAV

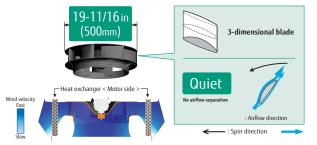
Powerful, wide airflow and quiet operation. Ability to use a branch duct off of the unit.



Cassette Grille UTG-LCGV sold separately. Must order one with each compact cassette.

### HIGH EFFICIENCY TURBO FAN WITH 3-DIMENSIONAL BLADE

High efficiency airflow distribution has been achieved by improving the fan-blade design which increases the air passing over the heat exchanger.

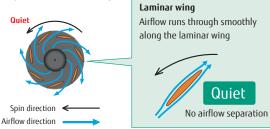


### QUIET

Optimization of wing form (laminar wing type) and wing number (Ż blades each)

Designed by Computational Fluid Dynamics (CFD) simulations



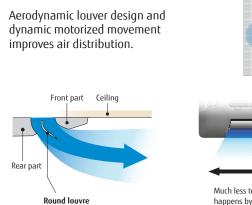


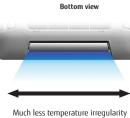
### SPECIFICATIONS

Model name			AUUB18TLAV	AUUB24TLAV	AUUB30TLAV	AUUB36TLAV		
Power source			1 Phase ~ 208/230V 60Hz					
	Cooling	BTUh	18,000	24,000	30,000	36,000		
Capacity	Cooling	kW	5.3	7.0	8.8	10.6		
Capacity	Heating	BTUh	20,000	27,000	34,000	40,000		
	Heating	kW	5.9	7.9	10.0	11.7		
Input power		W	39	46	59	80		
	High		677 (1,150)	753 (1,280)	942 (1,600)	1,059 (1,800)		
Airflow rate	Med	CFM (m <sup>3</sup> /h)	553 (940)	612 (1,040)	765 (1,300)	765 (1,300)		
	Low		512 (870)	512 (870)	647 (1,100)	647 (1,100)		
c 1	High	dB (A)	36	38	40	44		
Sound pressure level	Med		30	33	38	38		
level	Low	(~)	29	29	33	33		
Dimensions (H ×	W × D)	in.(mm)	9-11/16 × 33-1/16 × 33-	1/16 (246 × 840 × 840)	11-5/16 × 33-1/16 × 33-1/16 (288 × 840 × 840)			
Weight		lbs.(kg)	49 (22)	49 (22)	60 (27)	60 (27)		
Connection	Liquid (Flare)		3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)		
pipe diameter	Gas (Flare)	in.(mm)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)		
Drain hose diameter (I.D./O.U.)		3/4 / 1-1/16						
c	Model name		UTG-LCGV					
Cassette Grille	Dimensions (H×W×D)	in.(mm)		1-15/16 × 37-3/8 × 37	'-3/8 (50 × 950 × 950)			
Gime	Weight	lbs.(kg)		13 (	5.5)			

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 95.0°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.(75.7°M), Height difference : 01°t.(0 m) (Outdoor unit - Indoor unit). Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.

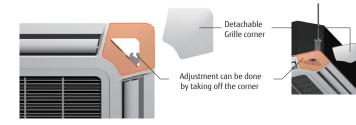
### **IMPROVEMENT OF AIRFLOW DISTRIBUTION**





### happens by spreading airflow widely

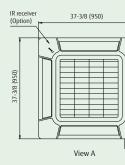
### ADJUSTABLE HANGER POSITION



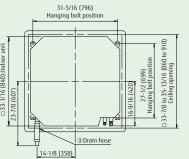
### **OPTIONAL PARTS**

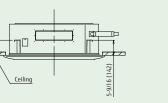
IR Receiver KitUTY-LRHYB1	Insi
Air Outlet Shutter PlateUTR-YDZC	Wio
Panel SpacerUTG-BGYA-W	Fre

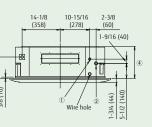
### DIMENSIONS



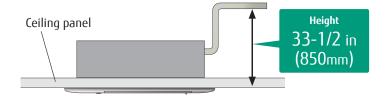
B







### HIGH LIFT DRAIN PUMP



Built-in high-loft drain pump

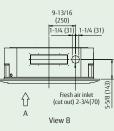
### HIGH CEILING MODE

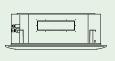
This cassette can be installed up to a height of 13-3/4ft. (4.2m) (AUUA36).

Mode	el code	The maximum height from floor to ceiling ft. (m)			
MOUE		Standard mode	High ceiling mode		
1	18	9' 10-1/8" (3.0)	11' 6" (3.5)		
2	24	9' 10-1/8" (3.0)	11' 6" (3.5)		
3	30	10' 6" (3.2)	11' 9-3/4" (3.6)		
3	36	10' 6" (3.2)	13' 9-3/8" (4.2)		

sulation Kit for High Humidity . .. UTZ-KXGA / UTZ-KXGB 'ide Panel .. UTG-AGYA-W .UTZ-VXGA esh Air Intake Kit

(UNIT: IN (MM))





		AUUB 18/24	AUUB 30	AUUB 36
	Refrigerant pipe flare connection (Liquid)	ø 3/8 (9.52)	ø 3/8 (9.52)	ø 3/8 (9.52)
	Refrigerant pipe flare connection (Gas)	ø 5/8 (15.88)	ø 5/8 (15.88)	ø 3/4 (19.05)
	Drain hose connection (Drain Hose)	ø 3/4 (I	.D.), ø 1-1/10	5 (O.D.)
٩	-	10-1/16 (256)	11-3/4 (298)	11-3/4 (298)

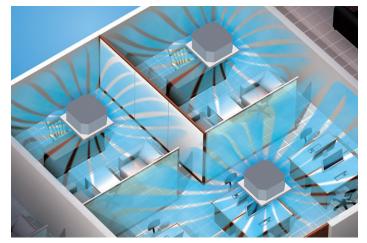


## Large Circular Flow Cassette

AUUB18TLAV1 (reduced height) AUUB24TLAV1 (reduced height) AUUB30TLAV1 (reduced height) AUUB36TLAV1 AUUB48TLAV1

### BETTER AIR DISTRIBUTION USING **360-DEGREE LOUVERS**

Circular flow design allows conditioned air to reach every corner of a room.





### **QUIET OPERATION AND 6 FAN SPEED CONTROL**

With 6 fan speeds to choose from, circular flow cassette models operate at whisper quiet sound levels.



<sup>c</sup> Compatible Remote Controller is as follows: UTY-RNRUZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

#### INDIVIDUAL LOUVER CONTROL

Each louver can be set individually using to bring comfortable air exactly where you want it in any room configuration. Compatible remotes and central controllers are: Touch Panel Wired RC (UTY-RNRUZ2) / Touch Panel Controller (UTY-DTGYZ1), System Controller (UTY-APGXZ1) / System Controller Lite (UTY-ALGXZ1).



Control of louvers, including swinging direction, keeps individuals from having air blown directly on them.



Air is blown efficiently throughout the space.

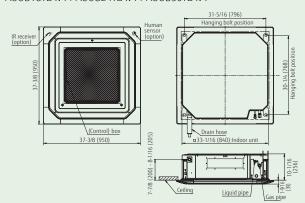
### **OPTIONAL PARTS**

Wired Remote Control (Touch Panel)..UTY-RNRUZ2 .....UTY-LNHU Wireless Remote Control..... Simple Remote Control.....UTY-RSRY, UTY-RHRY

IR Receiver Unit. Human Sensor Ki Air Outlet Shutter

### DIMENSIONS

#### Models: AUUB18TLAV1 / AUUB24TLAV1 / AUUB30TLAV1



#### SDECIEICATIONS

Model name			AUUB18TLAV1	AUUB24TLAV1	AUUB30TLAV1	AUUB36TLAV1	AUUB48TLAV1	
Power Source			1 Phase - 208 / 230 V ~ 60 Hz			1 Phase - 208 / 230 V ~ 60 Hz		
	Cooling	BTU/h	18,000	24,000	30,000	36,000	48,000	
Capacity	cooning	kW	5.3	7.0	8.8	10.6	14.1	
capacity	Heating	BTU/h	20,000	27,000	34,000	40,000	54,000	
	пеація	kW	5.9	7.9	10.0	11.7	15.8	
nput Power		W	20	25	49	61	116	
	High		618 (1,050)	659 (1,120)	865 (1,470)	954 (1,620)	1,201 (2,040)	
	Med-Hi	] [	547 (930)	618 (1,050)	683 (1,160)	883 (1,500)	1,059 (1,800)	
Airflow rate	Med	CFM	530 (900)	547 (930)	630 (1,070)	824 (1,400)	936 (1,590)	
AIIIOWIate	Lo-Hi	(m³/h)	512 (870)	530 (900)	547 (930)	789 (1,340)	848 (1,440)	
	Low	1 [	477 (810)	512 (870)	530 (900)	753 (1,280)	765 (1,300)	
	Quiet	1 [	459 (780)	459 (780)	459 (780)	677 (1,150)	677 (1,150)	
	High		33	35	40	41	47	
	Med-Hi	1 [	32	33	36	40	45	
	Med		31	32	34	38	42	
Sound pressure level	Lo-Hi	dB(A)	30	31	32	37	39	
	Low	1 [	29	30	31	35	36	
	Quiet	1 1	28	28	28	33	33	
Dimensions (H x W x D)		in.(mm)	9-11/16 × 33-1/16 × 33-1/16 (246 × 840 × 840)			11-5/16 × 33-1/16 × 33-1/16 (288 × 840 × 840)		
Weight		lbs.(kg)	53 (24)	54 (24.5)	54 (24.5)	65 (29.5)	65 (29.5)	
Connection pipe diameter	Liquid (Flare)	in.(mm)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	
Connection pipe diameter	Gas (Flare)	1	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	
Drain hose diameter (I.D./O.D.	.)	in.		3/4 / 1-1/16		3/4 /	1-1/16	
	Model name			UTG-LCGVCW / UTG-LCGVCB		UTG-LCGVCW	/ UTG-LCGVCB	
Cassette Grille	Dimensions (H×W×D)	in.(mm)	2-1/16	× 37-3/8 × 37-3/8 (53 × 950	× 950)	2-1/16 × 37-3/8 × 37-3/8 (53 × 950 × 950)		
	Weight	lbs.(kg)	13.0 (6.0)	13.0 (6.0)	13.0 (6.0)	13.0 (6.0)	13.0 (6.0)	

Note : Specifications are based on the following conditions: Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges. 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 95°F(35°C)DB/75°F(8.3°C)DB/35°F(8.3°C)DB

### OCCUPANCY/HUMAN SENSOR SETTING (OPTIONAL)

Automatically saves energy by detecting occupancy if unit is left on and room becomes unoccupied.

#### 2 modes can be selected.

#### Auto saving

### **Auto OFF**

Power is saved

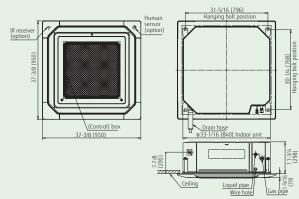
Operation is stopped while no one is around while no one is around

\*Human Sensor feature is only available through Wired Remote Control (Touch Panel) UTY-RNRUZ2.



UTY-LBHXD	Wide PanelUTG-AKXA-W	
itUTY-SHZXC	Panel SpacerUTG-BKXA-W	
r PlateUTR-YDZK	Insulation Kit For High Humidity UTZ-KXRA	

(UNIT: IN (MM))



#### AUUB36TLAV1 / AUUB48TLAV1



## Slim Compact Duct

#### ARUL4TLAV1 MINI **ARUL7TLAV** SLIM **ARUL9TLAV** SLIM ARUL12TLAV SLIM ARUL14TLAV SLIM ARUL18TLAV SLIM (Drain pump internal models)

installation orientation.

with minimum height requirement.

SLIM DESIGN



ARUL4TLAV1





ARUL7, 9, 12, 14TLAV



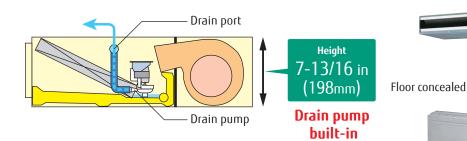


Shown with optional Auto Louver Grille Kit (UTD-GXTA-W, UTD-GXSA-W, UTD-GXSB-W)

### FLEXIBLE INSTALLATION

Slim Compact Duct units can be mounted horizontally or vertically and can deliver up to 0.36" external static pressure providing the power and flexibility to meet the needs of most applications.

Ceiling concealed



Offers slim design, wide range of static pressure settings and flexible

This model has a slim design so it can be installed in narrow ceilings

Note: Condensate drain pump cannot be used when unit is in a vertical position.

### SPECIFICATIONS

Model name			ARUL4TLAV1	ARUL7TLAV	ARUL9TLAV	ARUL12TLAV	ARUL14TLAV	ARUL18TLAV
Power source					1 Phase ~ 20	8/230V 60Hz		
	Cooling	BTUh	4,000	7,500	9,500	12,000	14,000	18,000
Capacity	Cooling	kW	1.2	2.2	2.8	3.5	4.1	5.3
Capacity	Usation	BTUh	4,400	9,500	10,900	13,500	15,600	20,000
	Heating	kW	1.3	2.8	3.2	4.0	4.6	5.9
Input power		W	26	44	50	54	92	83
High           Airflow rate         Med	High		271 (460)	324 (550)	353 (600)	353 (600)	471 (800)	553 (940)
	Med	CFM (m <sup>3</sup> /h)	247 (420)	288 (490)	324 (550)	300 (510)	418 (710)	494 (840)
	Low	] ( /,	218 (370)	258 (440)	283 (480)	265 (450)	359 (610)	441 (750)
Static pressure ra	Static pressure range in.WC		0 to 0.12 (0 to 30)	0 to 0.36 (0 to 90)	0 to 0.36 (0 to 90)	0 to 0.36 (0 to 90)	0 to 0.36 (0 to 90)	0 to 0.36 (0 to 90)
Standard static p	ressure	(Pa)	0.04 (10)	0.10 (25)	0.10 (25)	0.10 (25)	0.10 (25)	0.10 (25)
C	High	at a	25	28	29	30	34	34
Sound pressure level	Med	dB (A)	23	25	26	27	32	32
level	Low		21	22	24	24	28	28
Dimensions (H ×	Dimensions (H × W × D) in.(mm		7-13/16 × 27-9/16 × 17-11/16 (198 x 700 x 450)		7-13/16 × 27-9/16 × 24-7/16 (198 × 700 × 620)			7-13/16 × 35-7/16 × 24-7/16 (198 × 900 × 620)
Weight	Weight II		32 (14.5)	37 (17)	37 (17)	40 (18)	40 (18)	49 (22)
Connection	Liquid (Flare)		1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	3/8 (9.52)
pipe diameter	Gas (Flare)	in.(mm)	3/8 (9.52)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)
Drain hose diame	eter (I.D./O.U.)	]			3/4 /	1-1/16		

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 95.0°F(35°C)DB/75°F(23.9°C)WB.

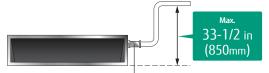
Heating: Indoor temperature of 70°F(21.1°C)DB/60°F(15.6°C)WB, and outdoor temperature of 47°F(8.3°C)DB/43°F(6.1°C)WB. Pipe length : 25ft.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit).

Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.





### CONDENSATE DRAIN PUMP (STANDARD)

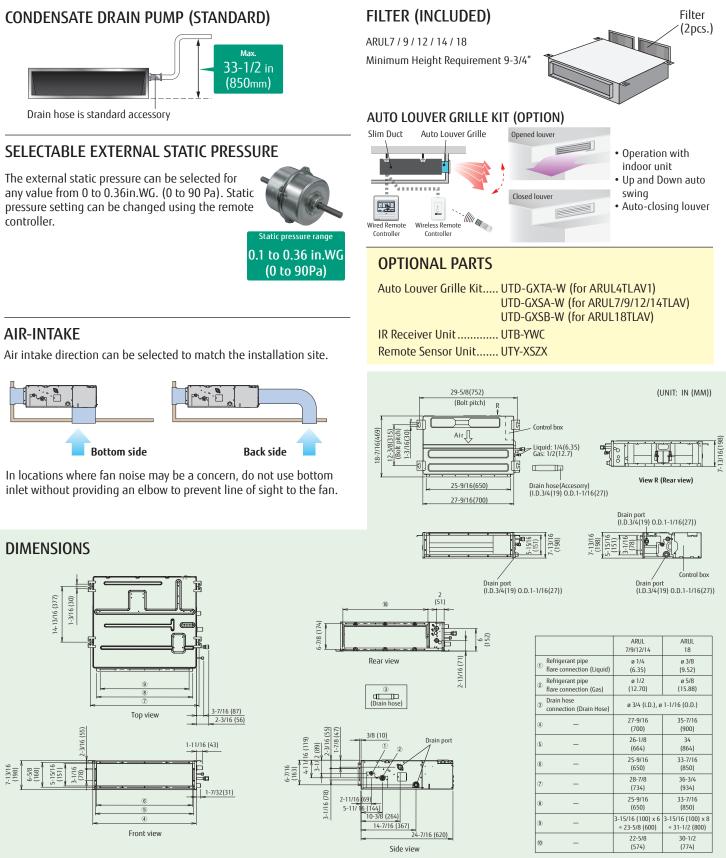


### SELECTABLE EXTERNAL STATIC PRESSURE

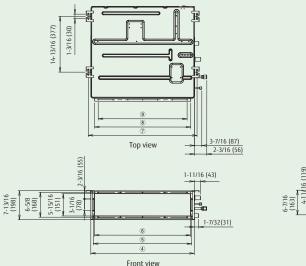
The external static pressure can be selected for any value from 0 to 0.36in.WG. (0 to 90 Pa). Static pressure setting can be changed using the remote controller.



### **AIR-INTAKE**



### DIMENSIONS







## Medium Static Pressure Duct

ARUM24TLAV ARUM30TLAV ARUM36TLAV

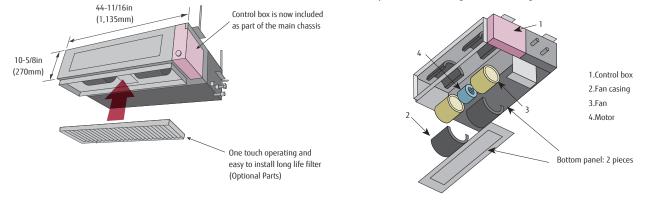


#### **SLIM & COMPACT DESIGN**

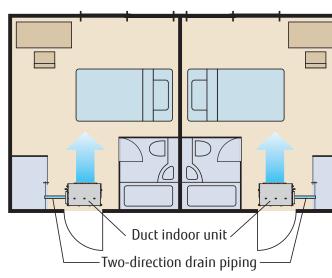
In the case of bottom return air connection, not only does the indoor unit design allow for installation in a narrow ceiling space of 10-5/8in (270mm), further space savings have been achieved by mounting the electrical control box internally inside the chassis.

#### EASY MAINTENANCE

Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.



#### **TWO-DIRECTION DRAIN PIPING**

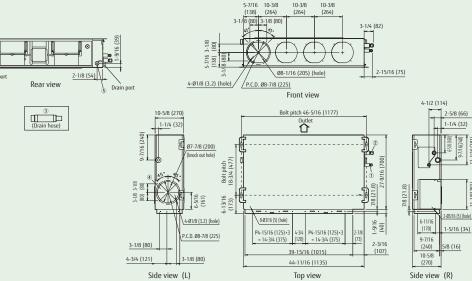


### HIGH EFFICIENCY DC FAN MOTORS

Improved motor efficiency from previous model.



#### DIMENSIONS



### SPECIFICATIONS

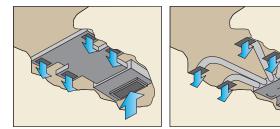
Model name			ARUM24TLAV	ARUM30TLAV	ARUM36TLAV		
Power source				1 Phase ~ 208/230V 60Hz			
	Cooling	BTUh	24,000	30,000	36,000		
Capacitu	Cooling ity	kW	7.0	8.8	10.6		
Capacity	Heating	BTUh	27,000	34,000	40,000		
	Heating	kW	7.9	10.0	11.7		
Input power	ower W 125 190 222		222				
	High		859 (1,460)	1,042 (1,770)	1,112 (1,890)		
Airflow rate	Med	CFM (m <sup>3</sup> /h)	724 (1,230)	812 (1,380)	895 (1,520)		
	Low	(111 / 11)	589 (1,000)	589 (1,000)	677 (1,150)		
Static pressure range		in.WG	0 to 0.60 (0 to 150)	0 to 0.60 (0 to 150)	0 to 0.60 (0 to 150)		
Standard static p	ressure	(Pa)	0.16 (40)	0.16 (40)	0.16 (40)		
	High	10	36	40	41		
Sound pressure level	Med	dB (A)	31	33	35		
	Low	(,,,	28	28	29		
Dimensions (H ×	W × D)	in.(mm)		10-5/16 × 44-11/16 × 27-9/16 (270 × 1,135 × 700)			
Weight		lbs.(kg)	86 (39)	86 (39)	86 (39)		
Connection	Liquid (Flare)		3/8 (9.52)	3/8 (9.52)	3/8 (9.52)		
pipe diameter	Gas (Flare)	in.(mm)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)		
Drain hose diame	eter (I.D./O.U.)			3/4 / 1-1/16			

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 95.0°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.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit).

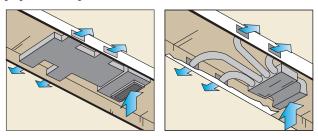
Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.

### **INSTALLATION STYLES**

Embedded in Ceiling



Hanging from Ceiling



### **OPTIONAL PARTS**

Drain Pump UnitUTZ-PU1NBA
Long Life Filter*UTD-LF25NA
Flange (Square)UTD-SF045T
Flange (Round)UTD-RF204
IR Receiver UnitUTB-YWC
Remote Sensor UnitUTY-XSZX
*Note, Medium Static Pressure Duct models do not include a standard filter.

(UNIT: IN (MM))

		ARUM 24/30	ARUM 36		
1	Refrigerant pipe	ø 3/8	ø 3/8		
	flare connection (Liquid)	(9.52)	(9.52)		
2	Refrigerant pipe	ø 5/8	ø 3/4		
	flare connection (Gas)	(15.88)	(19.05)		
3	Drain hose connection (Drain Hose)	ø 3/4 (I.D.), ø 1-1/16 (O.D.)			
4	Knock out hole	7-7/8	7-7/8		
	(fresh air)	(200)	(200)		
5	Hole for power cable	7/8 (23)	7/8 (23)		



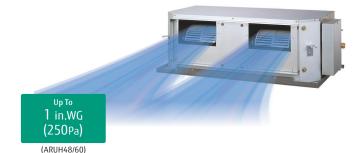
## High Static Pressure Duct (3, 4, 5 ton)

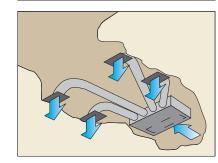
### ARUH36TLAV **ARUH48TLAV ARUH60TLAV**

High Static Pressure Ducted Units combine efficient casing design with non metallic fan wheels and casings to reduce noise levels; units are capable of delivering hot or cold air at static pressures up to 1 in.WG. These units are perfect for conditioning hard-to-reach areas and are able to meet the needs of many different types of applications.



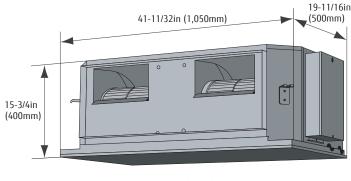
### HIGH STATIC PRESSURE DESIGN





### EASY INSTALLATION (COMPACT SIZE & LIGHTWEIGHT)

Equipped with a compact and lightweight chassis to simplify installation and provide better flexibility for tight installation spaces.



97lb (44kg)

### SPECIFICATIONS

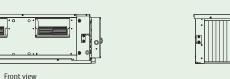
Model name			ARUH36TLAV	ARUH48TLAV	ARUH60TLAV		
Power source				1 Phase ~ 208/230V 60Hz			
	Cooling	BTUh	36,000	48,000	60,000		
	Cooling	kW	10.6	14.1	17.6		
Capacity	Heating	BTUh	40,000	54,000	67,000		
	пеація	kW	11.7	15.8	19.6		
nput power		W	496	752	806		
	High	6514	1,324 (2,250)	1,766 (3,000)	1,972 (3,350)		
Airflow rate	Med	CFM (m <sup>3</sup> /h)	1,030 (1,750)	1,589 (2,700)	1,678 (2,850)		
	Low	] (	824 (1,400)	1,354 (2,300)	1,501 (2,550)		
Static pressure range		in.WG	0.40 to 0.80 (100 to 200)	0.40 to 1.00 (100 to 250)	0.40 to 1.00 (100 to 250)		
Standard static p	ressure	(Pa)	0.40 (100)	0.40 (100)	0.40 (100)		
	High	10	43	47	48		
Sound pressure evel	Med	dB (A)	37	43	44		
ever	Low		32	40	41		
Dimensions (H ×	W × D)	in.(mm)		15-3/4 × 41-5/16 × 19-11/16 (400 × 1,050 × 500)			
Weight		lbs.(kg)	97 (44)	101 (46)	101 (46)		
Connection	Liquid (Flare)		3/8 (9.52)	3/8 (9.52)	3/8 (9.52)		
pipe diameter	Gas (Flare)	in.(mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)		
Drain hose diam	eter (I.D./O.U.)			3/4 / 1-1/16			

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 95.0°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.(7.5 m), Height difference : Oft.(0 m) (Outdoor unit - Indoor unit).

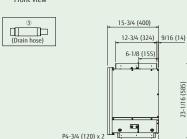
Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.

DIMENSIONS



11-5/8 (295)

Side view (L)



= 9-7/16 (240)

1-1/8 (28) = 23-5/8 (600) 1 (26) 33-1/2 (851 41-5/16 (1050

Top view

Economizer and filter box options are available through affiliated third party. Ask your local Fujitsu Airstage distributor for details.

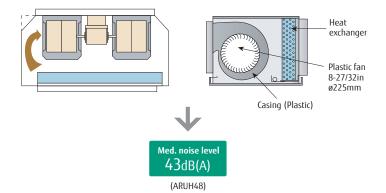
<u>12-Ø1/8 (3)</u>

### QUIET OPERATION

#### Indoor unit

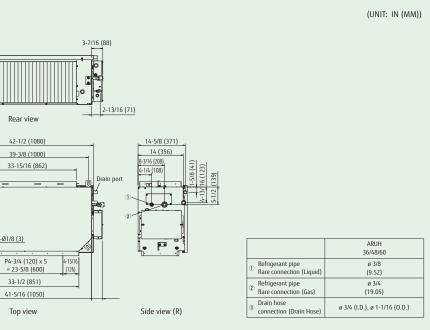
Efficient chassis design reduces turbulance.

Non-metallic fan wheel and casing reduces fan noise.



### **OPTIONAL PARTS**

Long-Life Filter\*.....UTD-LF60KA IR Receiver Unit .....UTB-YWC Remote Sensor Unit.....UTY-XSZX \*Note, High Static Pressure Duct models do not include a standard filter.





## High Static Pressure Duct (6, 8 ton)

### ARUH72TLAV1 ARUH96TLAV

ARUH72TLAV1

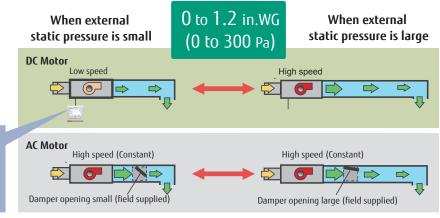
ARUH96TLAV





HIGH ENERGY SAVING AND FLEXIBLE

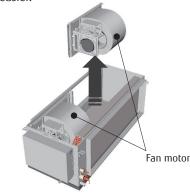
flexibility and efficiency. Back Belley



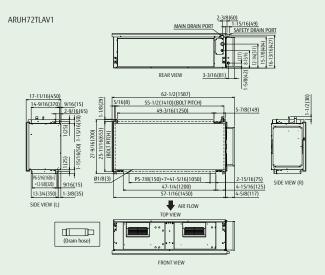
### **EASY SERVICE & MAINTENANCE**

DC fan motor

Left and right fan motors can be removed separately which has ma servicing of the indoor unit easier.



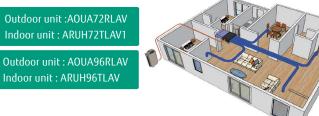
DIMENSIONS



Economizer and filter box options are available through affiliated third party. Ask your local Fujitsu Airstage distributor for details.

High static pressure ducted units combine efficient casing design and powerful DC blower fans to deliver efficient high static pressure up to 1.2 in.WG

\*Connectable combination.

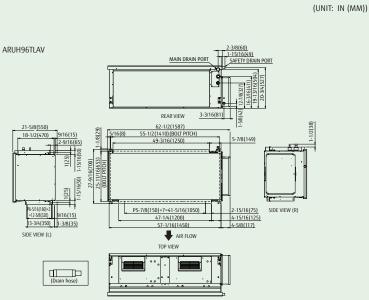


### **SPECIFICATIONS**

Model name			ARUH72TLAV1	ARUH96TLAV
Power source			1 Phase ~ 208	/230V 60Hz
	Cooling	BTUh	72,000	96,000
Capacitu	Cooling	kW	21.1	28.1
Capacity	lleation	BTUh	81,000	108,000
	Heating	kW	23.7	31.7
Input power		W	618	838
High			2296 (3900)	2855 (4850)
Airflow rate	Med	CFM (m <sup>3</sup> /h)	1942 (3300)	2502 (4250)
	Low	,	1766 (3000)	2119 (3600)
Static pressure range		in.WG	0 to 1.2 (0 to 300)	0 to 1.2 (0 to 300)
Standard static pressure		(Pa)	0.6 (150)	0.6 (150)
	High		47	48
Sound pressure level	Med	dB (A)	43	45
	Low		40	42
Dimensions (H ×	W × D)	in.(mm)	17-11/16 × 62-1/2 × 27-9/16 (450 × 1587 × 700)	21-5/8 × 62-1/2 × 27-9/16 (550 × 1587 × 700)
Weight		lbs.(kg)	203 (92)	231(105)
Connection	Liquid (Flare)		1/2 (12.70)	1/2 (12.70)
pipe diameter	Gas (Flare)	in.(mm)	7/8 (22.22)	7/8 (22.22)
Drain hose diam	eter (I.D./O.U.)	1	3/4 / 1-	1/16

#### **OPTIONAL PARTS**

nade	IR Receiver UnitUTB-YWC
	Remote Sensor UnitUTY-XSZX





## Vertical Air Handler

### ARUV12TLAV ARUV18TLAV ARUV24TLAV ARUV30TLAV ARUV36TLAV ARUV48TLAV ARUV60TLAV

The Vertical Air Handler is optimized to fit in narrow spaces. It offers a large range of static pressure settings up to 0.8 in.WG.



ARUV12TLAV ARUV18TLAV ARUV24TLAV



ARUV30TLAV ARUV36TLAV

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OPTIONAL PARTS
```

IR Receiver Unit.....UTB-YWC Remote Sensor Unit.....UTY-XSZX



ARUV48TLAV ARUV60TLAV

## FLEXIBLE LINE-UP WITH WIDE CAPACITY RANGE AND HIGH STATIC PRESSURE

- Selectable capacities from 1 to 5 tons.
- Broad static pressure range for a wide range of applications.
- Durable powder-coated thick steel gauge cabinet.
- Acoustical and thermal insulation is upgraded from 1/2" to 1" thick to reduce heat loss.
- Equipped with standard MERV 3 filter.
- Easily retrofitted into existing installations.

Static pressure range 0.1 to 0.8 in.WG (25 to 200Pa)

## Makes the Fujitsu Airstage platform an even more flexible solution.

\*Except ARUV12TLAV 0.1 to 0.7 in.WG (25 to 175 Pa).

#### FRONT ACCESSIBILITY Front panel provides easy access for setup and maintenance.

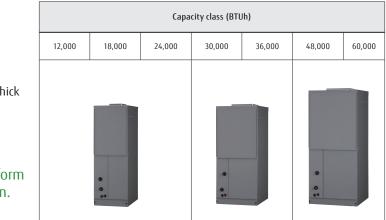
ICC. Electrical control box Fan motor, Fan, Condenser Air filter

#### DIMENSIONS



### SPECIFICATIONS

Model name		ARUV12TLAV	ARUV18TLAV	ARUV24TLAV	ARUV30TLAV	ARUV36TLAV	ARUV48TLAV	ARUV60TLAV			
Power source				1 Phase ~ 208/230V 60Hz							
	Castina	BTUh	12,000	18,000	24,000	30,000	36,000	48,000	60,000		
Capacitu	Cooling	kW	3.5	5.3	7.0	8.8	10.6	14.1	17.6		
Capacity	lle e Mere	BTUh	13,500	20,000	27,000	34,000	40,000	54,000	67,000		
	Heating	kW	4.0	5.9	7.9	10.0	11.7	15.8	19.6		
Input power		W	87	142	222	253	427	469	785		
	High		394 (670)	630 (1071)	862 (1464)	1092 (1855)	1372 (2331)	1531(2602)	2013(3420)		
Airflow rate	Med	CFM (m <sup>3</sup> /h)	347 (590)	547 (930)	800 (1360)	942 (1600)	1271 (2160)	1407(2390)	1883(3200)		
	Low	] (	306 (520)	506 (860)	689 (1170)	818 (1390)	954 (1620)	1130(1920)	1542(2620)		
Static pressure range		in.WG	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)	0.1 to 0.8 (25 to 200)		
Standard static p	ressure	(Pa)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)	0.5 (125)		
	High		41	43	45	45	48	48	53		
Sound pressure level	Med	dB (A)	39	40	43	43	46	46	50		
iere:	Low	] (,,,	37	39	39	40	40	41	45		
Dimensions (H ×	W × D)	in.(mm)		51 × 17-11/16 × 23-13/16 (1,295 × 450 × 605)		51 × 22-3/10 (1,295 × 5	5 × 23-13/16 64 × 605)	57-1/2 × 25-1/ (1,461 × 6			
Weight		lbs.(kg)	139 (63)	148 (67)	153 (69)	174 (79)	179 (81)	212 (96)	223 (101)		
Connection	Liquid (Flare)		1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)		
pipe diameter	Gas (Flare)	in.(mm)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)		
Drain hose diam	eter (I.D.)	1	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)		





### SMALL FOOTPRINT

ARUV12,18,24 17-3/4" x 23-3/4"

ARUV30, 36 22-1/4" x 23-3/4"

ARUV48, 60 25-1/8" x 23-3/4"



(UNIT: IN (MM))

	ARUV	ARUV	ARUV
	12/18/24	30/36	48/60
A	51	51	57-1/2
	(1,295)	(1,295)	(1,461)
В	17-11/16	22-3/16	25-1/2
	(450)	(564)	(638)
С	23-13/16	23-13/16	23-13/16
	(605)	(605)	(605)



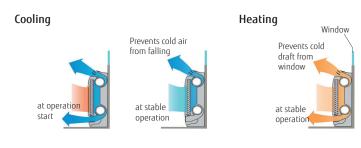
## Floor Mount

AGUA4TLAV1 AGUA7TLAV1 AGUA9TLAV1 AGUA12TLAV1 AGUA14TLAV1



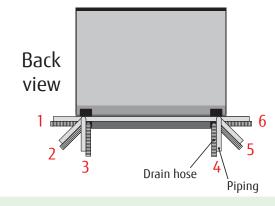
### **DUAL FANS AND WIDE AIRFLOW**

Individual vertical airflow by 2 fans control the whole room comfortably.



### FLEXIBLE PIPING CONNECTION

There are 6 positions for drain hose and piping to choose from: right, left, side and down positions.



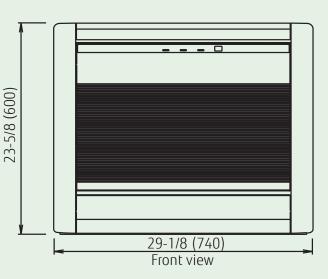
#### Beneath Standard standard window recessed portion Min. 37" Min. 27 23-9/16" 5/8 27-9/16" 29-1 Half concealed\* Wall Min. 23-1/4" Min. 28-3/-Max. 5-7/8" Max. 3-1/8

\*Field supplied insulation required

### FLEXIBLE AND EASY INSTALLATION

At less than 24" high and 30" wide, floor mount models fit easily under a standard window and can replace a radiator twice its size while producing more capacity.

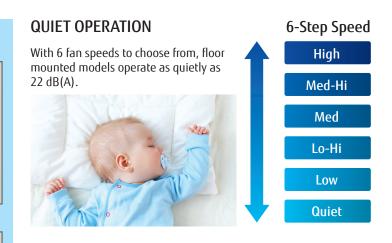
#### DIMENSIONS

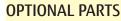


### **SPECIFICATIONS**

Model name			AGUA4TLAV1	AGUA7TLAV1	AGUA9TLAV1	AGUA12TLAV1	AGUA14TLAV1
Power Source			1 Phase - 208 / 230V ~ 60Hz				
	Cooling	BTUh	4,000	7,500	9,500	12,000	14,000
Capacity	Cooling	kW	1.2	2.2	2.8	3.5	4.1
	Heating	BTU/h	4,400	9,500	10,900	13,500	15,600
	neating	kW	1.3	2.8	3.2	4.0	4.6
Input Power		W	12 / 14	16	17	22	29
Max. Operating Current		A	0.19 / 0.22	0.24	0.25	0.30	0.38
	High		224 (380) / 253 (430)*	277 (470)	294 (500)	347 (590)	394 (670)
	Med-Hi		206 (350)	247 (420)	265 (450)	306 (520)	347 (590)
Airflow rate	Med	CFM (m <sup>3</sup> /h)	188 (320)	230 (390)	235 (400)	277 (470)	306 (520)
AIIIIOWIate	Lo-Hi		182 (310)	212 (360)	212 (360)	247 (420)	265 (450)
	Low		165 (280)	194 (330)	194 (330)	230 (390)	230 (390)
	Quiet		124 (210)	159 (270)	159 (270)	200 (340)	200 (340)
	High		35/36*	37	38	42	46
	Med-Hi	]	33	35	36	39	42
Sound pressure level	Med	dB(A)	31	33	34	37	39
Sound pressure level	Lo-Hi		30	31	31	35	36
	Low		28	29	29	33	33
	Quiet	1	22	22	22	30	30
Dimensions (H x W x D)		in.(mm)		23-5/8 ×	29-1/8 × 7-7/8 (600 × 74	0 × 200)	
Weight		lbs.(kg)	33 (15)	33 (15)	33 (15)	33 (15)	33 (15)
Connection nine diameter	Liquid (Flare)	in (mm)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)
Connection pipe diameter	Gas (Flare)	in.(mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	1/2 (12.70)	1/2 (12.70)
Drain hose diameter (I.D./O	.D.)	in.			9/16 / 5/8 to 11/16		

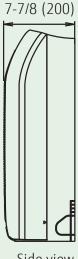
Note : Specifications are based on the following conditions: Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges. Cooling : Indoor temperature of 80°F(26.7°C)DB/67°F(19.4°C)WB; and outdoor temperature of 95°F(35°C)DB/75°F(23.9°C)WB. 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). \*Cooling operation / heating operation. 44





Wired Remote ControllerUTY-RNRUZ2
Wireless Remote ControllerUTY-LNHU
Simple Remote ControllerUTY-RSRY, UTY-RHRY
Half Concealed KitUTR-STA





Side view



## Floor / Ceiling

### ABUA12TLAV ABUA14TLAV ABUA18TLAV ABUA24TLAV

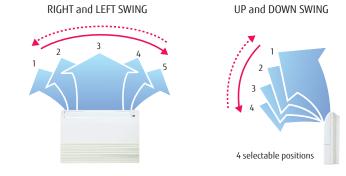
The slim and lightweight design allows the unit to be suspended from the ceiling or installed on the floor, offering flexibility in design.



Note: IR Receiver is standard for communicating with optional Wireless Remote Control.

### FOUR-WAY LOUVER SWING

A combination of up/down and right/left directional louver swing provides better air distribution in larger spaces.



### **HIGH POWER DC FAN MOTOR**

- High power
- High efficiency



### FLEXIBLE INSTALLATION Example of floor installation

#### Floor console





### **EXAMPLE OF CEILING INSTALLATION**

Under ceiling

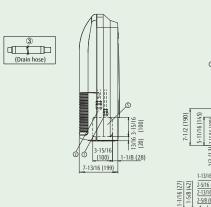


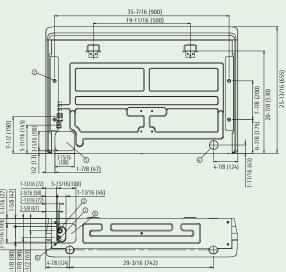
### SPECIFICATIONS

Model name			ABUA12TLAV	ABUA14TLAV	ABUA18TLAV	ABUA24TLAV	
Power source			1 Phase ~ 208/230V 60Hz				
	Cooling	BTUh	12,000	14,000	18,000	24,000	
Capacity	cooning	kW	3.5	4.1	5.3	7.0	
Capacity	Heating	BTUh	13,500	15,600	20,000	27,000	
	пеация	kW	4.0	4.6	5.9	7.9	
Input power W		W	30	42	74	99	
	High		388 (660)	459 (780)	589 (1,000)	589 (1,000)	
Airflow rate	Med	CFM (m <sup>3</sup> /h)	336 (570)	377 (640)	424 (720)	483 (820)	
	Low		288 (490)	324 (550)	341 (580)	400 (680)	
	High		36	40	46	47	
ound pressure evel	Med	dB (A)	32	36	39	42	
ever	Low	(,,)	28	34	35	37	
Dimensions (H ×	W × D)	in.(mm)	7-13/16 × 39 × 25-13/16 (199 × 990 × 655)				
Weight		lbs.(kg)	56 (25)	57 (26)	57 (26)	60 (27)	
Connection	Liquid (Flare)		1/4 (6.35)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	
pipe diameter	Gas (Flare)	in.(mm)	1/2 (12.70)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)	
Drain hose diame	eter (I.D./O.U.)		3/4 / 1-1/16				

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 95.0°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.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit). Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.







Engineered louver design boosts airflow sending cool air quickly to every corner of the room.

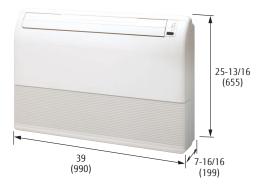
### AUTO-CLOSING LOUVER

When operation is stopped, the louvers will automatically close.

### **COMPACT DESIGN**

Symmetrical, slim and compact design.

Unit : in (mm)



(UNIT: IN (MM))

	ABUA 12/14	ABUA 18/24	
<ul> <li>Refrigerant pipe flare connection (Liquid)</li> </ul>	ø 1/4 (6.35)	ø 3/8 (9.52)	
<sup>(2)</sup> Refrigerant pipe flare connection (Gas)	ø 1/2 (12.70)	ø 5/8 (15.88)	
<sup>3</sup> Drain hose connection (Drain Hose)	ø 3/4 (I.D.), ø	1-1/16 (O.D.)	
④ Knock out hole (Drain Outlet)	ø 1-3/4 (45)	ø 1-3/4 (45)	
5 6 Knock out hole	-	_	
⑦ Hole for lifting bolt	Use M10 screw bolt		



Open

General installation pattern

which suspends the indoor

**SLIM & COMPACT DESIGN** 

unit from the ceiling.

## Ceiling

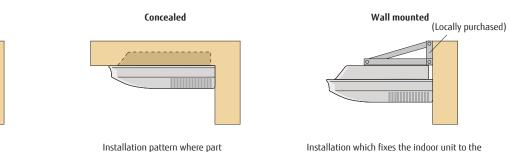
### ABUA30TLAV ABUA36TLAV

INSTALLATION

Powerful ceiling-hung indoor units are easy to install and can provide plenty of warm or cold air to a large space. Ceiling-hung units are the perfect solution for large spaces such as classrooms, restaurants, and kitchens.



Note: IR Receiver is standard for communicating with optional Wireless Remote Control.



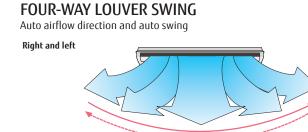
Installation which fixes the indoor unit to the wall by the use of wall brackets (field supplied). This type of installation can be used when the ceiling space is insufficient.

### **HIGH POWER DC FAN MOTOR**

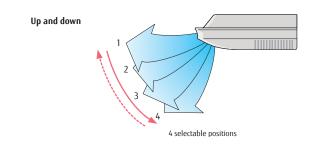
• High power





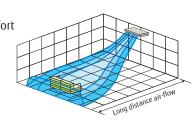




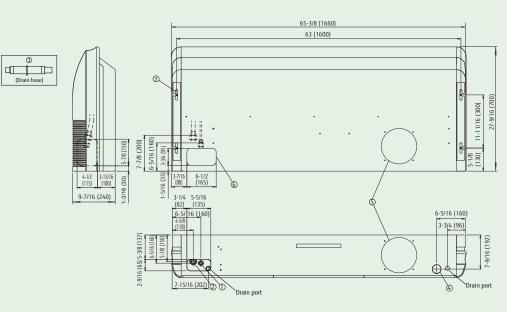


### LONG AIRFLOW

Long Airflow ensures comfort to every corner of a large room.



### DIMENSIONS



SPECIFICATIONS

Model name			ABUA30TLAV	ABUA36TLAV
Power source			1 Phase ~ 208	/230V 60Hz
	Cooling	BTUh	30,000	36,000
Capacity	apacity Heating	kW	8.8	10.6
Сарасну		BTUh	34,000	40,000
		kW	10.0	11.7
Input power	nput power W		85	85
	High		859 (1,630)	995 (1,690)
Airflow rate	Med	CFM (m <sup>3</sup> /h)	806 (1,370)	824 (1,400)
	Low		671 (1,140)	689 (1,170)
	High		42	45
Sound pressure level	Med	dB (A)	38	38
	Low		33	34
Dimensions (H ×	W × D)	in.(mm)	9-7/16 × 65-3/8 × 27 -9/1	6 (240 × 1,660 × 700)
Weight		lbs.(kg)	101 (46)	106 (48)
Connection	Liquid (Flare)		3/8 (9.52)	3/8 (9.52)
pipe diameter	Gas (Flare)	in.(mm)	5/8 (15.88)	3/4 (19.05)
Drain hose diame	eter (I.D./O.U.)	1	3/4 / 1	1/16

of the indoor unit is embedded

into the ceiling.

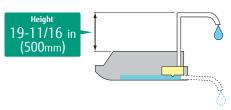
Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 80°F(26.7°C)DB/67°F(19.4°C)WB, and outdoor temperature of 95.0°F(35°C)DB/75°F(23.9°C)WB. Heating : Indoor temperature of 70°F(21.1°C)DB/60°F(15.6°C)WB, and outdoor temperature of 47°F(8.3°C)DB/43°F(6.1°C)WB.

Pipe length : 25ft.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit). Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.

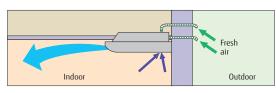
9-7/16 in (240mm)

### CONDENSATE DRAIN PUMP (OPTIONAL)

Optional drain lift-up mechanism allows flexible installation.



#### FRESH AIR INTAKE



### **AIR FILTER**

High Efficiency long-life filter doubles the life of the filter compared to standard filters.

### **OPTIONAL PARTS**

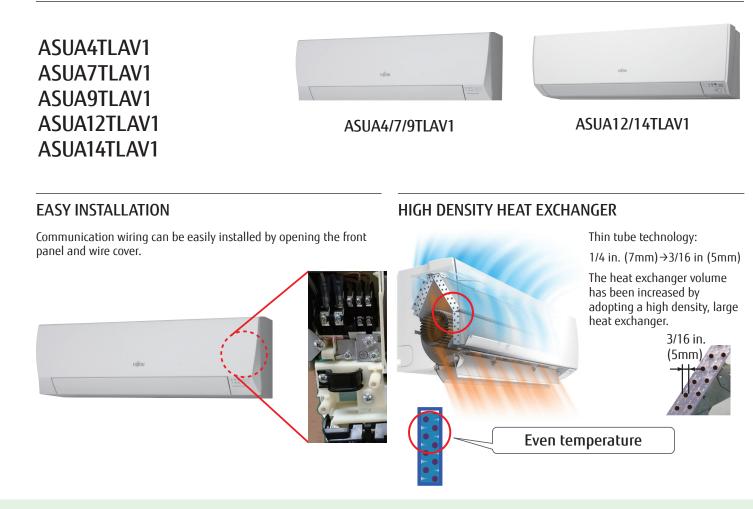
Drain Pump Unit..... UTZ-PU1EBA / UTR-DPB24T Flange.....UTD-RF204

(UNIT: IN (MM))

	ABUA 30	ABUA 36
<ol> <li>Refrigerant pipe flare connection (Liquid)</li> </ol>	ø 3/8 (9.52)	ø 3/8 (9.52)
<ul> <li>Refrigerant pipe</li> <li>flare connection (Gas)</li> </ul>	ø 5/8 (15.88)	ø 3/4 (19.05)
<sup>3</sup> Drain hose connection (Drain Hose)	ø 3/4 (I.D.), ø	1-1/16 (O.D.)
<ul> <li>Knock out hole</li> <li>(Drain Outlet)</li> </ul>	ø 1-15/16 (50)	ø 1-15/16 (50)
5 Knock out hole (Fresh Air)	ø 7-7/8 (200)	ø 7-7/8 (200)
6 Knock out hole (Refrigerant Pipe)	-	-
⑦ Hole for lifting bolt	Use M10	screw bolt



## **Compact Wall Mounted**



### SPECIFICATIONS

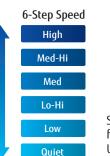
Model name			ASUA4TLAV1	ASUA7TLAV1	ASUA9TLAV1	ASUA12TLAV1	ASUA14TLAV1
Power Source			1 Phase - 208 / 230V ~ 60Hz				
	Carlina	BTU/h	4,000	7,500	9,500	12,000	14,000
Capacitu	Cooling	kW	1.2	2.2	2.8	3.5	4.2
Capacity	Heating	BTU/h	4,400	9,500	10,900	13,500	15,600
	Heating	kW	1.3	2.8	3.2	4.0	4.6
Input Power W		W	13	19	34	25	36
	High		253 (430)	324 (550)	424 (720)	406 (690)	471 (800)
	Med-Hi	] [	247 (420)	271 (460)	336 (570)	359 (610)	436 (740)
Airflow rate	Med	CFM	230 (390)	247 (420)	294 (500)	330 (560)	400 (680)
AIIIIOW Iate	Lo-Hi	(m3/h)	224 (380)	230 (390)	241 (410)	312 (530)	359 (610)
	Low		212 (360)	212 (360)	212 (360)	277 (470)	324 (550)
	Quiet		194 (330)	194 (330)	194 (330)	194 (330)	194 (330)
	High		31	35	43	40	44
	Med-Hi	] [	30	32	38	37	42
Sound pressure	Med	dB(A)	28	30	34	35	40
level	Lo-Hi		26	27	29	33	37
	Low	] [	24	24	24	30	34
	Quiet	] [	22	22	22	24	24
Dimensions (H x V	V x D)	in.(mm)	10-5/	16 × 32-5/16 × 8-1/8 (262 × 820	206)	10-9/16 × 33-1/16 ×	3 (268 × 840 × 203)
Weight		lbs.(kg)	17 (7.5)	17 (7.5)	17 (7.5)	20 (9)	20 (9)
Connection pipe	Liquid (Flare)	in.(mm)	Ø1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)
diameter	Gas (Flare)	]()	Ø3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	1/2 (12.70)	1/2 (12.70)
Drain hose diame	ter (I.D./0.D.)	in.			9/16 / 5/8 to 11/16		
ote : Specification	ns are based on the	e following	conditions.			*Cooling / Heating	

Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges. 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.

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

#### 6 FAN SPEED CONTROL (ASUA4TLAV1 only)

With 6 fan speeds to choose from, these wall mounted models operate as quietly as 22 dB(A).



Six-speed fan control available through the following Remotes and Controllers: UTY-RNRUZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

#### **OCCUPANCY/HUMAN SENSOR SETTING** Models ASUA12/14TLAV1

The occupancy function automatically saves energy when zone becomes unoccupied. It does that by sensing occupancy based on an adjustable interval (15-180 minutes). In this case, the unit either goes into power save mode, or shuts off.

This setting is only available through optional Wired Remote Control (Touch Panel) UTY-RNRUZ2.

#### **OPTIONAL PARTS**

Wired Remote Control (Touch Panel): UTY-RNRUZ2

Wireless Remote Control: UTY-LNHU

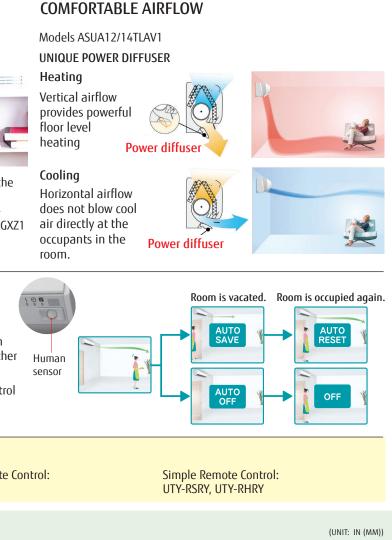
### DIMENSIONS

Models:

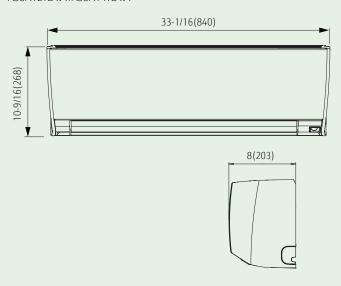
ASUA4TLAV1 / ASUA7TLAV1 / ASUA9TLAV1







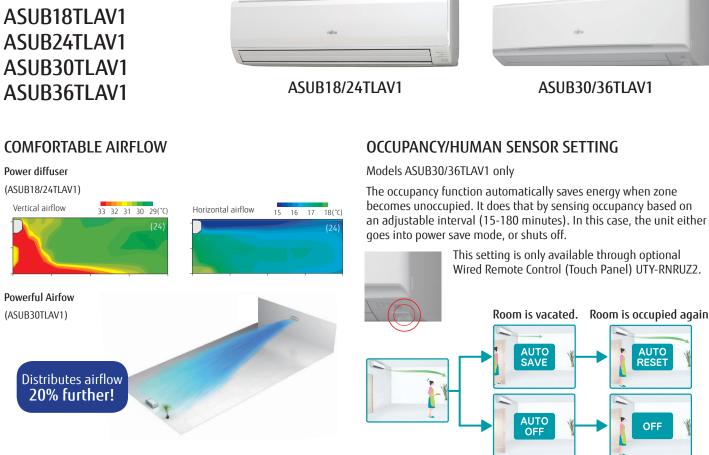
Models: ASUA12TLAV1/ASUA14TLAV1





## Wall Mounted

### ASUB18TLAV1 ASUB24TLAV1 ASUB30TLAV1 ASUB36TLAV1



### **6 FAN SPEED CONTROL**

With 6 fan speeds to choose from, these wall mounted models operate as quietly as 33 dB(A). Note: This applies to models ASUB30TLAV1 and ASUB36TLAV1.



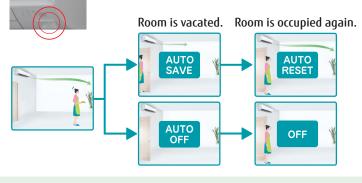
(30/36class)

#### SPECIFICATIONS

Model name			ASUB18TLAV1	ASUB24TLAV1	ASUB30TLAV1	ASUB36TLAV1	
Power Source			1 Phase - 208 / 230V ~ 60Hz				
	Caslias	BTU/h	18,000	24,000	30,000	34,000	
Color and the	Cooling	kW	5.3	7.0	8.8	10.0	
Capacity Heating	Heating	BTU/h	20,000	27,000	34,000	38,000	
	Heating	kW	5.9	7.9	10.0	11.2	
nput Power		W	32	60	74	103	
	High		494 (840)	647 (1,100)	848 (1,440)	954 (1,620) / 895 (1,520)*	
	Med-Hi	1	-	-	706 (1,200)	765 (1,300)	
Airflow rate	Med	CFM	453 (770)	536 (910)	618 (1,050)	659 (1,120)	
Airriow rate	Lo-Hi	(m <sup>3</sup> /h)	-	-	553 (940)	577 (980)	
	Low	1	406 (690)	430 (730)	524 (890)	524 (890)	
	Quiet	1 [	-	-	412 (700)	412 (700)	
	High		41	48	53	55 / 54 *	
	Med-Hi	1	-	-	49	51	
Sound pressure	Med	dB(A)	39	43	45	47	
evel	Lo-Hi		-	-	42	43	
	Low	] [	35	35	39	39	
	Quiet	1 [	-	-	33	33	
Dimensions (H x V	V x D)	in.(mm)	12-5/8 × 39-5/16 × 9-3/8	(320 × 998 × 238)	13-3/8 × 45-1/4 × 11	(340 × 1,150 × 280)	
Neight		lbs.(kg)	33 (15)	33 (15)	40 (18)	40 (18)	
Connection pipe	Liquid (Flare)	in (mm)	1/4 (6.35)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	
diameter	Gas (Flare)	in.(mm)	1/2 (12.70)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	
Drain hose diame	ter (I.D./O.D.)	in.(mm)		9/16 / 5/8	to 11/16		

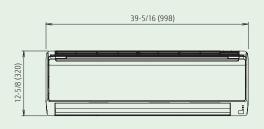
Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges. Cooling : Indoor temperature of 80°F(26.7°C)DB/67°F(19.4°C)WB; and outdoor temperature of 95°F(35°C)DB/75°F(23.9°C)WB. Heating : Indoor temperature of 70°F(21.1°C)DB/60°F(15.6°C)WB, and outdoor temperature of 47°F(8.3°C)DB/43°F(6.1°C)WB.

52 Pipe Length : 25ft. (7.5m), Height difference : Oft.(Om)(Outdoor unit - indoor unit).



### DIMENSIONS

#### Models: ASUB18TLAV1 / ASUB24TLAV1





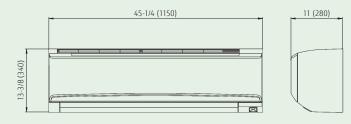
VRF

. UTY-RNRUZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

OPTIONAL PARTS	
Wired Remote Control (Touch Panel)	UTY-RNRUZ2
Wireless Remote Control	UTY-LNHU
Simple Remote Control	UTY-RSRY, UTY-RHRY

(UNIT: IN (MM))

#### Models: ASUB30TLAV1 / ASUB36TLAV1





## Compact Wall Mounted (while supplies last)

### ASUA7TLAV ASUA9TLAV ASUA12TLAV ASUA14TLAV

Compact (Only 8.5" inches deep) and stylish design.

### **FILTER FEATURES**

High performance filter provides high quality heating and cooling.



Ion Deodorizing Filter

The filter deodorizes by decomposing absorbed odors using the oxidizing and reducing effects of ions generated by fine ceramic particles. 3 year life expectancy. Wash to restore surface action.

14		-			
					88.
2.22	22.22	100			24

Apple-catechin Filter (polyphenol ingredient from apples)

Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited. 3-12 month life expectancy.



Note: IR Receiver is standard for communicating with optional Wireless Remote Control.

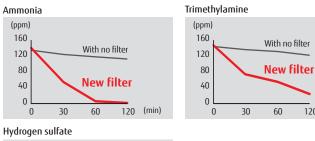
Deodorizing effect (Odor reduction rate)

With no filter

60

New filter

120 (min)



High performance filters have been thoroughly tested by the Environmental Sanitary Inspection Center using an advanced Deodorization Test.

120

### SPECIFICATIONS

Model name			ASUA7TLAV	ASUA9TLAV	ASUA12TLAV	ASUA14TLAV		
Power source			1 Phase ~ 20	8/230V 60Hz				
	Caslina	BTUh	7,500	9,500	12,000	14,000		
	Cooling	kW	2.2	2.8	3.5	4.1		
Capacity	Heating	BTUh	9,500	10,900	13,500	15,600		
	Heating	kW	2.8	3.2	4.0	4.6		
Input power W		W	17	18	22	34		
	High		288 (490)	294 (500)	330 (560)	394 (670)		
Airflow rate	Med	CFM (m <sup>3</sup> /h)	265 (450)	265 (450)	283 (480)	288 (490)		
	Low		218/247* (370/420*)	218/247* (370/420*)	247 (420)	247 (420)		
	High		35	36	39	44		
Sound pressure level	Med	dB (A)	33	33	35	37		
	Low		31 /27*	31 /27*	31	32		
Dimensions (H ×	W × D)	in.(mm)		10-13/16 × 31-1/8 × 8-7/16 (275 × 790 × 215)				
Weight		lbs.(kg)	20 (9)	20 (9)	20 (9)	20 (9)		
Connection	Liquid (Flare)		1/4 (6.35)	1/4 (6.35)	1/4 (6.35)	1/4 (6.35)		
pipe diameter	Gas (Flare)	in.(mm)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)	1/2 (12.70)		
Drain hose diam	eter (I.D./O.U.)			9/16 (13.8) / 5/8 (15.8) - 11/16 (16.7)				

(ppm)

160

120

80

40

0

0

30

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 95.0°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.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit). Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges. \*Cooling operation / heating operation



Powerful output in a compact design

Though the indoor unit is compact, it features a large, high pressure cross fan



(3-1/2in./90mm diameter) in a center mounted configuration and a Lambda type heat exchanger to provide plenty of power.

### SYMMETRICAL DESIGN

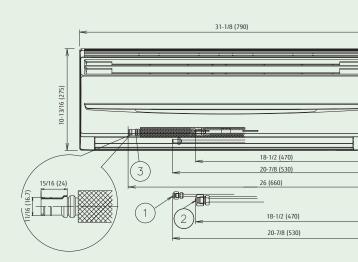
Symmetrical, clean design that suits all interiors.

### **HIGH POWER DC FAN MOTOR**

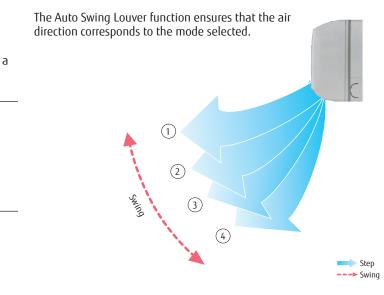
- High power
- Wide rotation range
- High efficiency
- Compact size



### DIMENSIONS



### AUTO SWING LOUVER

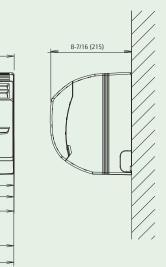


### **EASY MAINTENANCE**

Maintenance is simple because the front panel can be removed for easy access.



(UNIT: IN (MM))



	ASUA 7/9/12/14
<ol> <li>Refrigerant pipe</li></ol>	ø 1/4
flare connection (Liquid)	(6.35)
Refrigerant pipe	ø 1/2
flare connection (Gas)	(12.70)
③ Drain hose connection (Drain Hose)	ø 9/16 (I.D.), ø 5/8 to 11/16 (O.D.) [ø 13.8 (I.D.), ø 15.8 to 16.7 (O.D.)] Total length : 23-5/8 (600)



## Wall Mounted (while supplies last)

### ASUB18TLAV ASUB24TLAV



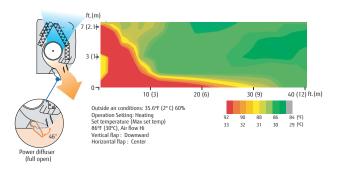
Note: IR Receiver is standard for communicating with optional Wireless Remote Control.

### **COMPACT & SLIM DESIGN**

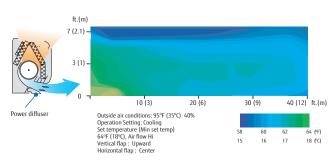
Stylish, slim and elegant, these popular wall mounted units are perfect for smaller rooms where a clean, aesthetic design is preferred. Variable speed DC fan motors deliver heating or cooling quietly and comfortably.



### "VERTICAL AIRFLOW" PROVIDES POWERFUL FLOOR LEVEL HEATING



### "HORIZONTAL AIRFLOW" DOES NOT BLOW COOL AIR DIRECTLY AT THE OCCUPANTS IN THE ROOM



### EASY MAINTENANCE

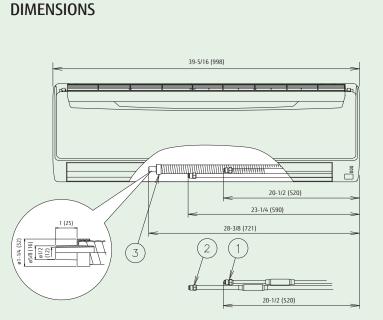
Improved drain pan design simplifies cleaning and maintenance.

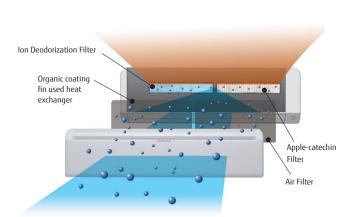
### SPECIFICATIONS

Model name			ASUB18TLAV	ASUB24TLAV				
Power source			1 Phase ~ 208/	1 Phase ~ 208/230V 60Hz				
	Cooling	BTUh	18,000	24,000				
Capacitu	Cooling	kW	5.3	7.0				
Capacity	Heating	BTUh	20,000	24,000				
	Heating	kW	5.9	7.9				
Input power		W	32	60				
	High		494 (840)	647 (1,100)				
Airflow rate	Med	CFM (m <sup>3</sup> /h)	453 (770)	536 (910)				
	Low	] (	406 (690)	430 (730)				
	High		41	48				
Sound pressure level	Med	dB (A)	39	43				
ieve:	Low	] (,,,	35	35				
Dimensions (H ×	W × D)	in.(mm)	12-5/8 × 39-5/16 × 9	(320 × 998 × 228)				
Weight		lbs.(kg)	33 (15)	33 (15)				
Connection	Liquid (Flare)		3/8 (9.52)	3/8 (9.52)				
pipe diameter	Gas (Flare)	in.(mm)	5/8 (15.88)	5/8 (15.88)				
Drain hose diameter (I.D./O.U.)		1	1/2 (12) / 5/8 (16)					

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 95.0°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.(7.5 m), Height difference : 0ft.(0 m) (Outdoor unit - Indoor unit).

Built-in protective functions may limit capacity or shut off unit if unit is operated outside of unit design operating temperature ranges.





### **AIR CONDITIONER FILTER FEATURES**

Antibacterial deodorizing pre-filter with special ceramic powder

### Long-life\*1 Ion Deodorization Filter

The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.

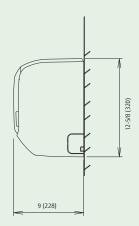


#### Apple-catechin Filter\*2

Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.

- \*1 The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.
- \*2 Using different filters at both sides.

(UNIT: IN (MM))



	ASUB 18/24
<ol> <li>Refrigerant pipe</li></ol>	ø 3/8
flare connection (Liquid)	(9.52)
(2) Refrigerant pipe	ø 5/8
flare connection (Gas)	(15.88)
③ Drain hose connection (Drain Hose)	ø 1/2 (I.D.) , ø 5/8 (O.D.) [ø 12 (I.D.) , ø 16 (O.D.)] Total length : 26-3/8 (670)



## **Outdoor Air Unit**

### AAUA48TLAV AAUA72TLAV AAUA96TLAV



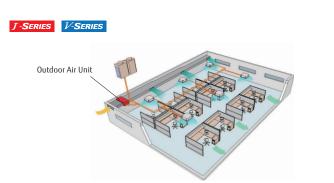
The 100% Outdoor Air Unit efficiently processes the outdoor air in cooling or heating to supply outdoor air to improve Indoor Air Quality (IAQ) for ventilation.

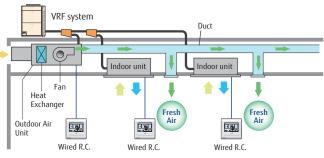


AAIIA96

### ONE VRF SYSTEM CAN PROVIDE AIR CONDITIONING AND AIR SUPPLY AT THE SAME TIME

Outdoor Air Unit can be connected to the VRF outdoor condenser as an indoor unit conditioning fresh outdoor air to comfort levels.





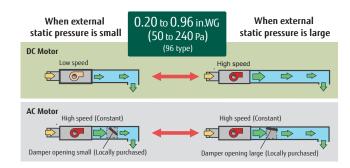
\* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30% or less of the outdoor unit capacity.

### HIGH ENERGY SAVINGS AND FLEXIBLE DUCT DESIGN BY USING DC MOTOR

• Greatly reduces electricity consumption by adopting permanent magnet compared to when using an AC motor.



• With its built in DC motor, changes to static pressure from 0.20 to 0.96 in.WG is simplified using wired remote control.



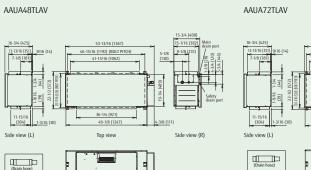
### TOP CLASS COMPACT DESIGN

• Top class lightweight compact design at just 53-13/16 in. (425mm) in height, 123 lbs. (56kg) in weight for AAUA72TLAV type. This unit can be installed easily even in a narrow space.

### SPECIFICATIONS

Model name AAUA48TLAV			AAUA48TLAV	AAUA72TLAV	AAUA96TLAV
Power source         1 Phase ~ 208/230V 60Hz					
Capacitu	Cooling	BTUh	48,000	72,000	96,000
Capacity	Heating	DIUII	30,000	47,000	59,000
Input power	Cooling/Heating	W	179	292	370
Airflow rate		CFM (m <sup>3</sup> /h)	636 (1,080)	989 (1,680)	1,236 (2,100)
Static pressure r	ange	in.WG	0.20 to 0.74 (50 to 184)	0.20 to 0.80 (50 to 200)	0.20 to 0.96 (50 to 239)
Standard static pressure (Pa)		0.74 (184)	0.80 (200) 0.80 (20		
Sound pressure level dB (A) 42		42	44 47		
Dimensions (H × W × D) in. (mm)			16-3/4×53-13/16×22-1/2 (425×1,367×572)	16-3/4×53-13/16×22-1/2 (425×1,367×572)	17-11/16×62-5/16×27-9/16 (450×1,583×700)
Weight		lbs.(kg)	108 (49)	123 (56)	159 (72)
Connection Pipe Diameter (Small in. / Large) (mm)			Ø3/8 / Ø3/4 (Ø9.52 / Ø19.05)	Ø1/2 / Ø7/8 (Ø12.70 / Ø22.22)	Ø1/2 / Ø7/8 (Ø12.70 / Ø22.22)
Cooling		°FDB	41 to 109 (5 to 43)	41 to 109 (5 to 43)	41 to 109 (5 to 43)
Operation Range	Heating	(°CDB) 19 to 70 (-7 to 21)		19 to 70 (-7 to 21)	19 to 70 (-7 to 21)
Refrigerant			R410A	R410A	R410A

### DIMENSIONS







Cooling : Outdoor temperature of 91°FDB (33°CDB) / 82°FWB (28°CWB). Heating : Outdoor temperature of 32°FDB (0°CDB) / 27°FWB (-2.9°CWB).

Pipe length : 25ft. (7.5 m)

59

#### Wireless Simple Wired Touch Remote Control Remote Control Remote Control \* Remote Control \*Auto mode disabled Central Controller Touch Panel Central System Controller Remote Controlle Controller System Controller Lite (Software) \* The temperature setting is discharged air temperature setting. The air volume is set to a constant speed unit: in. (mm) 123 lbs. (56kg) 16-3/4 in. (425) (72type) 53-13/16 in. 22-1/2 in. (572) (1,367) (UNIT: IN (MM)) AAUA96TLAV +1 - --- --- --- ---1050) P5-7/8×7=41-5/16 (P15) 36-1/4 (921) Top view Side view (R) Side view (L Top view Side view (R (Drain hose)

### VARIOUS CONTROLLERS

There are a variety of optional controllers, such as individual remote controls, central controllers and building management systems.

**76.** 

#### Remote Controls

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## **FUJITSU - VENTACITY Partnership**

Fujitsu General America has partnered with Ventacity Systems to provide the first VRF - HRV/ERV solution that is powered by the Ventacity HVAC<sup>2</sup> Smarter Building Platform. The Airstage VRF system provides a superior level of comfort with very high efficiency at part-load conditions. The Ventacity HVAC<sup>2</sup> Smarter Building Platform can

measure key indoor air quality parameters and outdoor parameters. It then regulates the amount of fresh air and its temperature that is being supplied to the building. The Ventacity HRV/ERV system, with its 85%-93% sensible recovery efficiency, minimizes the amount of energy required to condition the fresh air. This translates to huge energy savings for the building owner.

What does the Fujitsu-Ventacity solution bring?

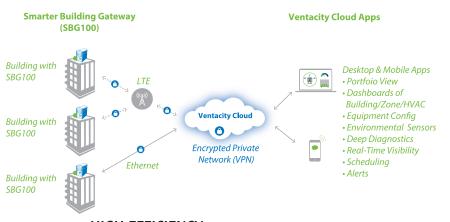
### IMPROVED COMFORT AND HEALTH IN BUILDINGS

When the Ventacity HRV/ERV system is connected to optional sensors, it will optimize ventilation, providing just the right amount of fresh air when and where needed for maximum health and comfort. The combination of zoned heating and cooling from Airstage systems with fresh air from Ventacity's HRV/ERV systems provides a healthy environment for building occupants, translating into higher building value.

### **CLOUD-BASED SYSTEM MANAGEMENT**

System monitoring and control decisions can be made both locally at each device or building and remotely using any web-enabled device. Remote monitoring lowers maintenance costs, increases profits through efficient scheduling of field technicians and greatly reduced training time.





### HIGH EFFICIENCY

The Airstage VRF system - which includes a variety of Building Management System controls - combined with a Ventacity HRV/ERV system makes an intelligent, ultra-efficient solution for buildings, offering tremendous Energy Use Intensity (EUI) reductions and savings in the building's annual energy use per unit area.

### SBC100 SMARTER BUILDING CONTROLLER

The SBC100 Smarter Building Controller offers significant savings by providing the best, most feature rich VRF central controller at a competitive cost. Compared to other HVAC control systems, the SBC100 requires fewer components and much less integration time. The SBC100 connects a variety of devices to the HVAC<sup>2</sup> Smarter Building Platform over a secure network via LTE or Ethernet, and uses a cloud-based user interface, which is available from any Internet connected device. This offers immediate access to critical information to monitor energy efficiency and lower operating costs throughout a building's lifecycle.

### PLUG AND PLAY HVAC SYSTEM

Upon installation, Airstage VRF systems are automatically detected and added to the secure Ventacity HVAC<sup>2</sup> Smarter Building Platform network, dramatically reducing installation and system integration time and expense.



CERTIFIED MARTER BUILDING PLATFORM

\_\_\_\_\_\_\_

VENTACITYSYSTEMS

HVAC<sup>2</sup>

#### SDECIEICATIONS

SPECIFICATION		Indoor Mount Ductless	Above Drop Ceiling Ventilator	Above Drop Ceiling Ventilator	Above Drop Ceiling Ventilator	Above Drop Ceiling Ventilator	Roof Top Mounted Ducted	Roof Top Mounted Ducted
MODEL NAME		VS500SQ / VS500Sqe	VS250 CMh/e	VS400 CMh/e	VS900 CMh/e	VS1200 CMh/e	VS1000RT/RTe	VS3000RT/RTe
Ventilation Flow - Max	cfm	539	309	467	992	1492	1,020 cfm	3,300 cfm
Ventilation Flow - Typical	cfm	117 to 500	60 to 270	120 to 480	200 to 900	300 to 1200	180 to 1,000 cfm	750 to 3,000 cfm
Ventilation Type				Heat Recove	ery Ventilator (HRV) / Er	ergy Recovery Ventilato	r (ERV)	
Heat Exchanger				Counterflow A	luminum Static Plate /	Counterflow Polymer Sta	atic Plate	
Heat Recover - Max	%	90 / 83	86.1/79.2	86.1/79.2	86.1/79.2	86.1/77.9	92 / 85	90 / 85
Temperature Range	°F	40 to 104	41 to 104	41 to 104	41 to 104	41 to 104	-13 to 140 -13 to 122	
Modes C		CAV, DCV, Economizer		CAV, DCV, VAV	, BMS. Economizer	CAV, DCV, VAV, BMS, Economizer		
MECHANICAL			1					
Weight	lbs.	280 / 288	165	210	375	540	618 / 662	1654 / 1720
Dimensions	in.	84.3 x 44 x 17.9	46.9 x 12.2 x 30.7	55.1 x 12.2 x 42.5	66.9 x 15.4 x 54.5	78.7 x 18.5 x 67.3	63.6 x 35.2 x 52.5	86.3 x 48.3 x 73.5
OA Filter (2" or 4") MERV13	in.	15.16 x 16 x 3.75	11.2 x 9.25 x 3.78	17.9 x 9.25 x 3.78	23.03 x 12.2 x 3.78	29.53 x 15.55 x 3.78	17.5 x 28 x 3.75	51 x 26.5 x 3.75
RA Filter (2") MERV8	in.	10.6 x 16.7 x 2	11.2 x 9.25 x 3.78	17.9 x 9.25 x 3.78	23.03 x 12.2 x 3.78	23.03 x 12.2 x 3.78	16.5 x 28 x 17.5	51 x 25.25 x 3.75
ELECTRICAL								
Power Supply	kW	5.1	1.78	3.29	6.26	7.9	7	20.2
Voltage		240 VAC, 1-Phase, 60Hz	208-240 VAC	208-240 VAC	208-240 VAC	208-240 VAC	240 VAC, 1-Phase, 60Hz or 208/240 VAC, 3-Phase, 60Hz	"208/240 VAC, 3-Phase, 60Hz or 480 VAC, 3-Phase, 60Hz"
De-Ice Preheater	kW	2.1	1.51	2.93	5.3	6.9	6	16.3
Maximum Power - 1 Fan	w	322	125	170	470	503	500	1,900

### DUCTLESS

The VS500SQ is a ductless HRV/ ERV for decentralized applications. The VS500SQ optimizes for energy



efficiency and healthy indoor air quality, while offering ultra-quiet operation and no drafts.

Top Applications: Classrooms, offices and conference rooms.

### VENTILATOR

VS-CM Series HRVs & ERVs for installation above drop ceilings.

Operates at much higher energy efficiency (up to 93%) which saves much more energy and

significantly lowers operating costs. 4 capacities to choose from

### PASSIVE HOUSE CERTIFIED

### DUCTED

VS1000RT and VS3000RT make up a line of Smart Ventilation™ Management systems with a rugged design for easy rooftop or mechanical room installation that optimize healthy indoor air quality while

minimizing building energy usage.

Top Applications: New and existing retail spaces, offices, restaurants, schools, public spaces and multifamily residential buildings.

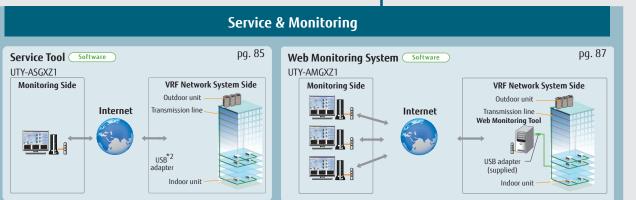






Remote Controls	
Touch Remote Control UTY-RNRUZ2	
рд. 67	<u>et</u>
Wired Remote Control UTY-RNKU pg. 69	
pg. 69 Simple Remote Control	рд. 69
pg. 69 Simple Remote Control	pg. 69
UTY-RSKU With mode selector	
Wireless Remote Control UTY-LNHU	
pg. 70	
<b>Wi-fi Interface Module</b> FJ-RC-WIFI-1NA	
рд. 71	
Wi-fi Interface Module UTY-TFSXZ2	
pg. 71	



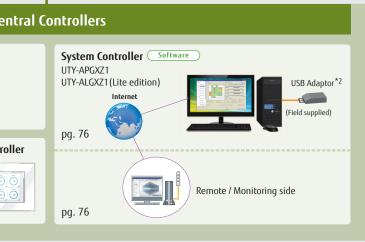


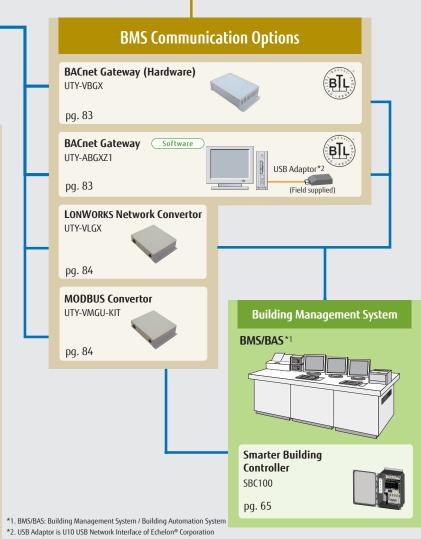
	Се
Touch Panel Controller UTY-DTGYZ1	
рд. 72	
Central Remote Controller	Central Remote Contro
UTY-DCGY	UTY-DCGYZ1
pg. 75	pg. 74

### For all Airstage VRF and J-Series



Network Convertor       pg. 80         DC power supply UTY-VTGX       Single split         Ac power supply UTY-VVGGXZ1       Single split         pg. 80       Single split         Signal Amplifier UTY-VSGXZ1 pg. 80       Single split         IR Receiver Unit UTS-VVGGXZ1 pg. 70       Image: Converter UTY-TRX         IR Receiver Unit UTS-TWX       Image: Converter UTY-TRX         pg. 70       Image: Converter UTY-TRX         Image: Converter UTY-TERX Pg. 81       Image: Converter UTY-TERX         Image: Converter UTY-TERX       Image: Converter UTY-TERX	Accesso	ories
UTY-VTGX       Single split         Metwork Convertor       Single split         Ac power supply       Single split         UTY-VVGGX21       Single split         pg. 80       Single split         Signal Amplifier       Image: Single split         UTY-VSGX21       Single split         pg. 80       Image: Single split         Image: Single split       Image: Single split	Network Convertor	pg. 80
AC power supply UTY-VVGGXZ1 pg. 80 Signal Amplifier UTY-VSGXZ1 pg. 80 IR Receiver Unit UTB-YWC IR Receiver Unit UTB-YWC IR Receiver Unit UTY-LRHYB1*3 UTY-LBHXD*4 pg. 70 Card-key Switch Controller UTY-TERX MighRise 560 Kit pg. 82	UTY-VTGX	Single split
UTY-VSGXZ1 pg. 80 IR Receiver Unit UTB-YWC pg. 70 External Switch Card-key UTY-TERX Converter UTY-TTRX Cassette IR Receiver Unit UTY-LRHYB1*3 UTY-LBHXD*4 pg. 70 HighRise 360 Kit pg. 82	AC power supply UTY-VVGGXZ1	Single split
UTB-YWC     Receiver Unit       pg. 70     UTY-LRHYB1*3       UTY-LBHXD*4     pg. 70       External     Card-key       Switch     Gontroller       UTY-TERX     UTY-TERX	UTY-VSGXZ1	Converter
Switch Controller UTY-TERX	UTB-YWC	Receiver Unit UTY-LRHYB1*3 UTY-LBHXD*4
	Switch Controller UTY-TERX	<b>360 Kit</b> pg. 82





\*3. For Cassette

\*4. For Circular Flow Cassette

R	EMOT	FS &			REMO	DTES					CONTROLLERS			BMS/BAS*
		DLLERS												<b>A</b>
			Touch Remote Control	Wired Remote Control	Simple Remote Control	Simple Remote Control*1	Wireless Remote Control	Wi-fi Interface Module	Central Controller	Central Controller	Touch Panel Controller	System Controller Lite Software	System Controller Software	Smarter Building Controller
Mode	el name		UTY-RNRUZ2	UTY-RNKU	UTY-RSRY	UTY-RHRY	UTY-LNHU	FJ-RC-WIFI-1NA	UTY-DCGY	UTY-DCGYZ1	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1	SBC100
Max.	controllable re	mote control groups	1	1	1	1	1	1	100	100	400	400	1600	320
Max.	controllable in	ndoor units	16	16	16	16	16	1	100	100	400	400	1600	320
Max.	controllable g	roups	_	-	_	-	16	_	16	50	100	400	1600	320
	On / Off		•*3	•	•	•	•	•	•	•	•	•	•	•
	Operation mo	ode setting	•	•	•	-	•	•	•	•	•	•	•	•
	Fan speed se	tting	•	•	•	•	•	•	•	•	•	•	•	•
ion	Room temp.	setting	•	•	•	•	•	•	•	•	•	•	•	•
nct	Room temp.	set point limitation	•	-	•	•	-	•	•	•	•	•	•	٠
l fu	Test operatio	n	•	•	•	•	•	•	•	•	•	-	-	
ltro	Up/down air o	direction flap setting	•	•	•	•	•	•	•	•	•	•	•	•
сог	Right/left air	direction flap setting	•	•	-	-	•	•	•	•	•	•	•	•
ing	Individual lou	uver control	•	-	-	-	-	-	-	-	•	-	-	
ion	Group setting	]	_	-	_	-	-	-	•	•	•	•	•	
Air conditioning control function	RC prohibitio	n	_	_	_	-	-	-	•	•	•	•	•	•
COL	Anti freeze se	etting	_	_	_	-	-	•	•	•	•	•	•	•
Air	Set temp. au	o return	•	•	-	-	-	•	-	-	-	-	-	
	Away setting		•	-	-	-	-	•	-	-	-	-	-	
	Economy mo	de setting	•	•	-	-	•	•	•	•	•	•	•	•
	Occupancy se	ensor control	_	-	-	-	-	-	-	-	-	•	•	
	Error		•	•	•	•	-	•	•	•	•	•	•	•
	Defrosting		•	•	•	•	-	•	•	•	•	•	•	•
	Current time		•	•	_	-	•	•	•	•	•	•	•	
	Day of week		•	•	-	-	-	-	-	-	•	•	•	
	R.C. prohibiti	on	•	•	•	•	-	-	•	•	•	•	•	•
	Cooling/heat	ing priority	•	•	•	•	-	•	•	•	•	•	•	
Display	Address displ	ау	•	•	•	•	-	-	•	•	•	•	•	
Disp	Room temp		•	-	•	•	-	•	-	-	-	-	-	
	Multi langua	ge	•	-	-	-	-	•	•	•	•	•	•	
	Daylight Saving	Time setting (Summer)	•	-	-	-	-	-	•	•	•	•	•	
	Time zone se	tting	-	-	-	-	-	-	-	-	•	-	-	
	Name registr	ation	•	-	-	-	-	•	•	•	•	•	•	
	Backlight		•	-	•	•	-	•	•	•	•	-	-	
	2D floor layou	t / 3D building display	-	-	-	-	-	-	-	-	-	-	•	
	Schedule	Period	Week	Week	-	-	-	Unlimited	Week	Week	Year	Year	Year	
	timer	On/Off, Temp,	8*3 *4	4	_	-	_	Unlimited	20	20	20	144	144	
	On/off timer	mode, times per day		•		_	•	•		_	_	_	_	
ег	Sleep timer			_	_	_	•	•	-	_	_	_	_	
Timer	Program time	21		_		_	•	•		_	_	_		
	Auto off time		•	_		_	-	•	_	_	_	_	_	
	Day off		•	•		_	_	•	•	•	•	•	•	
	,	mer setting (Minutes)	10 · 30	30	_	_	5	_	10	10	10	10	10	
	Status monit	-	_	_	_	_	_	_	•	•	•	•	•	•
		arge apportionment	_	_	_	_	_	_	_	_	-	0	•	•
_	Error history		•	•	_	_	_		•	•	•	•	•	•
Control	Emergency sl	.op	_	_	_	_	_		•*2	•*2	•*2	_	_	•
Co	Remote man			_	_	_	_	•	-	_	-	0	•	•
		g management	_	_	_	_	_	_	_		_	0	0	_
	Low noise mo		_	_	_	_	_		-		•	-		•
		ation for malfunction				_	_		-	•	_	•	•	•
rnel	E-IIIdii Ilouiilo		•	_	_	_	_	-	-	•	-	•	•	•
Internet	Key lock		Child lock	-	_	-	-	Password setting	Password setting	Password setting	Password setting	Password setting	Password setting	Password setting
r BMS	Third party M communicati	odbus on	_	_	_	_	_	_	_	_	_	0	0	0
Other	Service Tool F							ternal input.						•

## **Smarter Building Controller**

### **SBC100**

The SBC100 Smarter Building Controller is a state of the art building management system that integrates heating, ventilation, and air-conditioning (HVAC) equipment and controls. Pre-configured equipment including Fujitsu's Airstage VRF connect to the HVAC<sup>2</sup>-Smarter Building Platform over a secure network via LTE or Ethernet, and uses a cloud-based user interface, which is available from any Internet connected device. This offers immediate access to critical information to monitor energy efficiency and lower operating costs throughout a building's life-cycle.

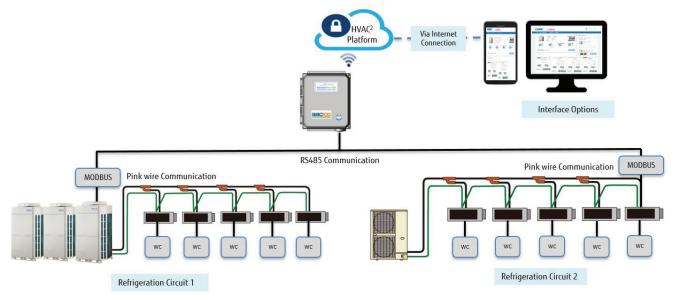
### THE CLOUD EXPERIENCE IS CUSTOMIZED FOR THE SPECIFIC ROLE OF THE USER:

- Owners
- Occupants •
- Property Managers
- HVAC Contractors

### PLUG AND PLAY

- Simple configuration and integration.
- Pre-Programmed and ready for compatible field equipment.

### AIRSTAGE INTEGRATION USING SMARTER BUILDING CONTROLLER



\*1 "Operation mode" setting is not available for this model. \*2 This function is available only through external input. control. \*3 On / Off (Occupied / Unoccupied) \*4 Mode deleted

●: Supported O: Optional function -: Not supported yet ▲: Limited

64



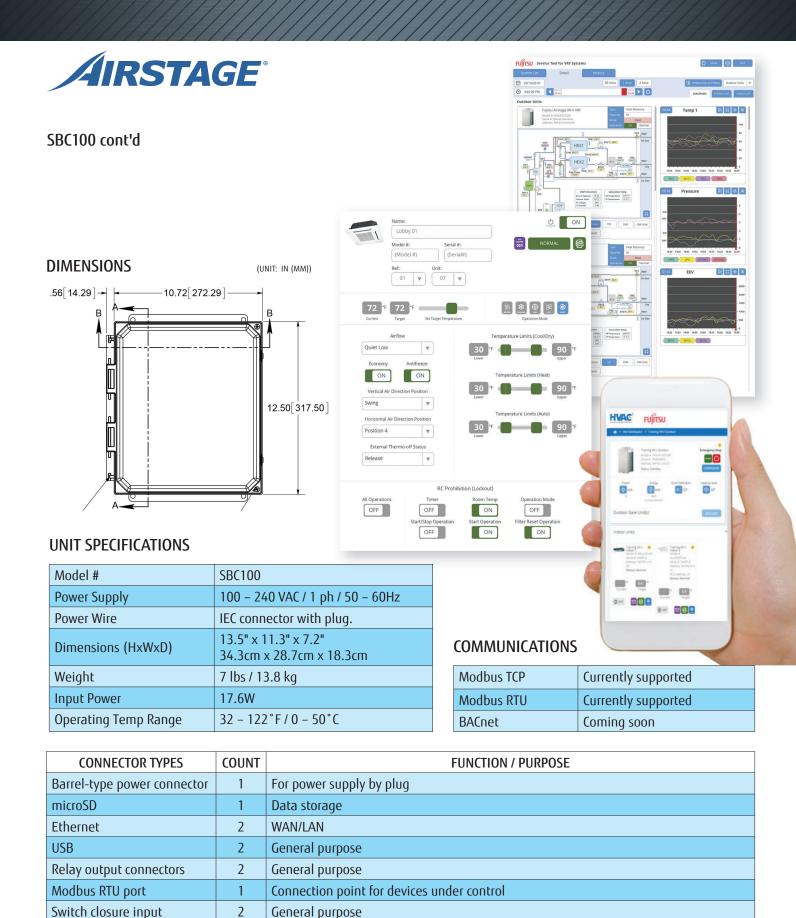


### **REMOTE CONNECTIVITY**

- ٠ Mobile access over a secure internet connection.
- User interface with a simple layout provides critical building ٠ information.
- Optimum system performance is achieved with remote service . tool monitoring, providing a good understanding of a potential issue minimizing downtime.
- Remotely examine full diagnostic data and error codes from • the VRF to pinpoint the cause of an issue. All data are stored permanently in our secure cloud.
- Remote monitoring provides peace of mind, and when needed will reduce the total truck roles, benefiting the contractor, the building owner, the occupants, and the environment!

### **BUILDING MANAGEMENT SYSTEM**

- Suitable for a single building or a portfolio of buildings.
- BACnet ready and open to other HVAC<sup>2</sup> systems.



Supports Wi-Fi A/B/G and Bluetooth 4.0

Cellular LTE internet connection

### **REMOTE CONTROLS**

## **Touch Remote Control** (2-WIRE): UTY-RNRUZ2

Easy operation by high-definition large STN-LCD touch screen

- Built-in temperature sensor
- Built-in weekly/Daily timer(ON/OFF(Occupied/Unoccupied),Temp.)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Administrator temperature set point limitation
- Corresponds to 12 different languages (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Greek, Portuguese, Turkish and Dutch)

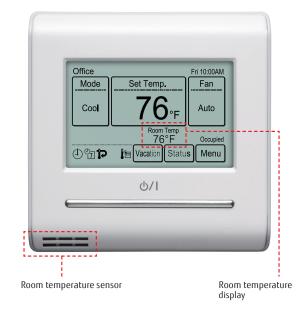
### HIGH PERFORMANCE AND COMPACT SIZE

• In addition to the individual control, various energy saving controls can be realized using one remote controller only.



### ACCURATE AND COMFORTABLE CONTROL

• Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.



### BACKLIGHT

- Backlight enables easy operation in a dark room.
- Backlight display time of 30 or 60 seconds can be set.



Wi-Fi / Bluetooth antenna

1

Geolocation

GPS antenna

Cellular antenna





### VARIOUS ENERGY SAVING SETTINGS

#### Auto OFF Timer

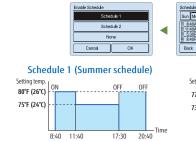
- The indoor unit automatically turns off after a set time has passed.
- The time interval for which auto off works can be set.

Ex) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off



#### 2 schedules Weekly Timer

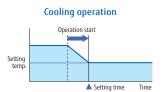
- 2 schedules such as for the summer and winter can be set.
- 8 setting changeable per day of week (Setting items: ON / OFF (Occupied/Unoccupied), Temperature, Time)





#### **Optimum start function**

• Provides configurable operation start (Boost) to get space to temperature before scheduled time.



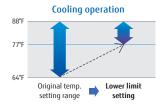


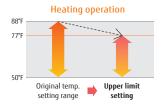
### Set Temperature Auto Return

- The set temperature automatically returns to the previous setting.
- The time range in which the set temperature can be changed is 10 to 120 minutes.

#### Set Temperature Upper and Lower Limit Setting

• The set temperature range can be set for each operation mode. (Cooling / Heating / Auto)







### **REMOTE CONTROLS**

Automaticall

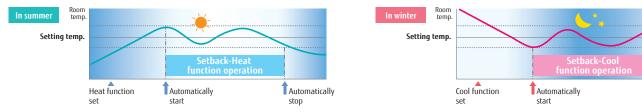
### **REMOTE CONTROLS**

### UTY-RNRUZ2 cont'd

### ADDITIONAL FUNCTIONS

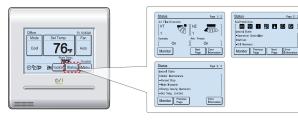
#### Away mode

• Cooling / Heating is automatically started when the room temperature reaches a setting temperature even if the indoor unit is off.



#### Displays setting status and limitations

• The remote controller settings can be easily checked





#### Daylight savings time (Summer Time) • Provides Daylight Savings adjustment option for regions that uses it.

I.U.

ОК

0100 1010 1000 1000



K Fri 10 DAM

Child Loc

0/I

### Child lock Lock / unlock method: Push the ON/OFF button and the screen (4 seconds)

### Name registration

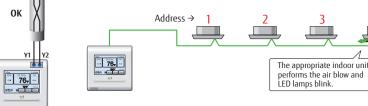
• Indoor unit names can be registered in the remote control screen. This makes it easy to identify the indoor unit.

### SIMPLIFIED INSTALLATION

- Uses non-polar 2-wire type
- The faulty wiring can be prevented by using non-polar 2-wire.



• Reduce errors and install time compared with manual addressing



### **EASY MAINTENANCE**

#### **Error History Display**

- The errors that occur in the indoor unit or remote control are saved.

111

ОК

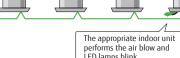
n-pola

### • A maximum of 32 error incidents can be saved.

### **SPECIFICATIONS**

Model name	UTY-RNRUZ2					
Power source	DC 12V					
Dimensions (H x W x D) (in.(mm))	4-3/4 × 4-3/4 × 11/16 (120 × 120 × 20.4)					
Weight (oz.(g))	8 (220)					

DC12V is supplied by the indoor unit



## Wired Remote Control

### (3-WIRE) UTY-RNKU

The room temperature can be controlled by detecting the temperature accurately from the built-in sensor

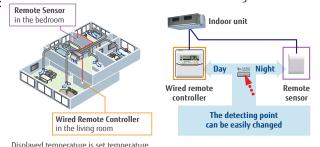
- Simple operation with Built-in Weekly / Daily Timer.
- Control up to 16 indoor units.
- Up to 2 wired remote controls can be connected to a single indoor unit.

### ACCURATE AND COMFORTABLE

Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.

This wired remote controller and the optional remote sensor allows flexibility in sensor location, suitable for all requirements.

Example of changing sensor:



Displayed temperature is set temperature.

## Simple Remote Control

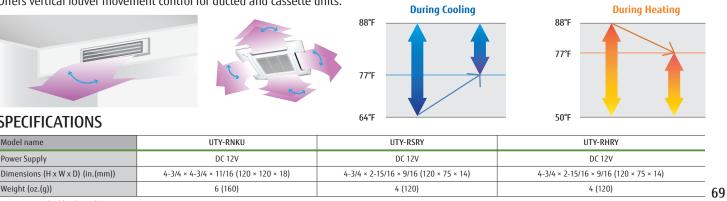
### (2-WIRE) UTY-RSRY / UTY-RHRY (WITHOUT OPERATION MODE) (3-WIRE) UTY-RSKU / UTY-RHKU (WITHOUT OPERATION MODE)

Compact wired remote control unit provides access to basic functions Built-in temperature sensor

- Backlit display
- Equipped with Remote control prohibition
- Suitable for hotels, classrooms or offices as it is easily operated with no complex functions.

### VERTICAL LOUVER CONTROL

Offers vertical louver movement control for ducted and cassette units.



### **SPECIFICATIONS**

Model name	UTY-RNKU	
Power Supply	DC 12V	
Dimensions (H x W x D) (in.(mm))	4-3/4 × 4-3/4 × 11/16 (120 × 120 × 18)	
Weight (oz.(g))	6 (160)	Γ
DC12V is supplied by the indoor unit		



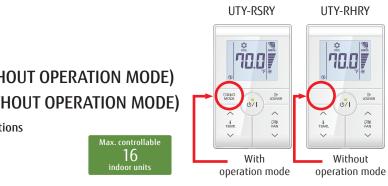
START/STOP

#### **BUILT-IN TIMERS**

- A weekly timer with up to four different On/Off and temperature settings per day

### SIMPLE INSTALLATION

Designed for flush mount or usage of standard electric box.



### ROOM TEMPERATURE SET POINT LIMITATION

The Simple Remote Control can manage set point limitation in small buildings without the central controller requirement.



## Wireless Remote Control

### UTY-LNHU

Simple and sophisticated operations with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.

### ACCURATE AND COMFORTABLE

Select from 4 different timer programs: On / Off / Program / Sleep

Program timer: The program timer operates the ON and OFF timer once within a 24 hour period.

**Sleep timer:** The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.

### EASY INSTALLATION AND OPERATION

- Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)
- Wide and precise transmitting range.
- IR Built-in receiver is standard in compact cassette, ceiling/floor, and wall mounted indoor units.

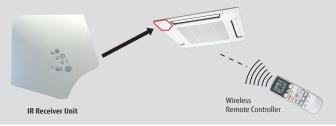
### **IR RECEIVER UNIT: UTB-YWC**

Necessary to control all duct types by Wireless Remote Control



### **IR RECEIVER UNIT: UTY-LRHYB1**

Cassette type indoor unit can be controlled with Wireless Remote Control

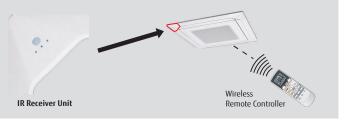


### THIRD PARTY THERMOSTAT CONVERTOR: UTY-TTRX

Thermostat adapter allows a Fujitsu ductless system to be connected to a third-party thermostat such as Honeywell, Nest, etc.

### **IR RECEIVER UNIT : UTY-LBHXD**

Cassette type indoor unit can be controlled with Wireless Remote Control.

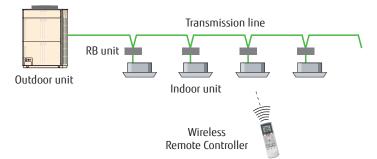


### **REMOTE CONTROLS**



### ADDRESS SETTING

During installation, address setting can be performed using the Wireless Remote Control, thus eliminating manual switch setting.



# COMPATIBILITY FOR WIRED WI-FI MODULE

	I J-KC-WITI-INA	
Туре	Indoor Unit Model	<b>Required Parts</b>
Compact Wall Mounted (ASUA)	7, 9, 12, 14RLAV	Plug model:
	7, 9, 12, 14TLAV	K9707476019*
Wall Mounted (ASUB)	18, 24RLAV	Plub model:
	18, 24TLAV, 24TLAV1	K9709223017*
Compact Cassette (AUUA)	7, 9, 12, 14, 18, 24RLAV	
	7, 9, 12, 14, 18, 24TLAV, 4TLAV1	
Cassette (AUUB)	18, 24, 30, 36RLAV	
	18, 24, 30, 36TLAV	
Floor Mount (AGUA)		1
Floor/Ceiling (ABUA)	12, 14, 18, 24RLAV	
	12, 14, 18, 24TLAV	
Ceiling (ABUA)	30, 36RLAV	Built-in Low
	30, 36TLAV	voltage
Slim Duct (ARUL)	7, 9, 12, 14, 18RLAV	terminal block
	7, 9, 12, 14, 18TLAV, 4TLAV1 (mini duct)	
Medium Static Pressure Duct (ARUM)	24, 30, 36RLAV	
	24, 30, 36TLAV	
High Static Pressure Duct (ARUH)	36, 48, 60RLAV	
	36, 48, 60, 72, 96TLAV	
Vertical Air Handler (ARUV)	12, 18, 24, 30, 36, 48, 60TLAV	

EL-RC-WIFI-1NA

\*Plug included with indoor wall mount units

### **REMOTE CONTROLS**

## Wi-fi Interface Module

### FI-RC-WIFI-1NA

UTY-TFSXZ2 (for 2-wire indoor units)

For: Cassettes, Ducted Units, Ceiling Mount, Floor/ Ceiling Mount (Universal), Wall Mounted, Floor **Mount Units** 

### WI-FI INTERFACE FOR VRF Control your Fujitsu Airstage VRF indoor unit from anywhere

### HOW DOES IT WORK?

- The indoor units are controlled from a webpage or using an iOS or Android APP in a very intuitive way.
- A wired device installed near each unit controls its operation and communicates over Wi-fi to the Internet router.
- A server in the cloud manages the whole process.



70



Remotely manage your VRF indoor unit using a smartphone, tablet or PC via the Internet.

### FEATURES

- Manages the VRF indoor unit using the iOS or Android app.
- Programs the indoor unit operation schedule.
- Offers access to several indoor unit settings including Mode, temperature set point, and much more.
- Offers early startup that brings the space to the desired set point before arriving.
- Also, offers delayed setback after leaving.
- Provides instant alarm notifications.

• Error reporting, available in several languages



### **TECHNICAL FEATURES**

Enclosure UL Approval	ABS (UL 94HB)	
Dimensions	2-3/4 x 4-1/4 x 1-1/8 (70 x 108 x 28)	
Weight	0.17 lbs (80g)	
Color	White	
Power Supply	12V, 55mA Can be powered through indoor unit.	
Mounting	Wall	
LED indicators	1 x Device status	
Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)	
Operating humidity	<93% HR, no condensation	
RoHS conformity	Compliant with RoHS directive (2002/95/CE).	
Certifications	CE confirmity to EMC directive (2004/108/EC) and Low- voltage directive (2006/95/EC) • EN 60950-1 • EN 301489-1 v1.8.1 • EN 301489-17 v2.1.1	



\* For Heat Recovery network systems the limit is

320 indoor units, consult the D&T manual for

proper wiring and the use of signal amplifiers.

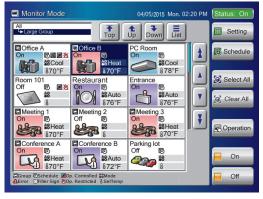
## **Touch Panel Controller with Internet**

## UTY-DTGYZ1

High visibility and easy operation via high resolution 7.5 inch TFT-LCD touch panel screen

- Controls up to 400 indoor units\*
- Provides Internet/LAN remote control and operation
- Indoor units can be grouped for batch monitoring and setting
- Schedules are programmable with up to 20 settings per day
- Easy-to-understand Graphical User Interface (GUI)
- Data can be transfered to USB for further analysis
- Does not require a 4X4 electric box. Mounts flush to the wall.
- Large-sized 7.5-inch no-glare TFT color touch screen
- Selectable 2 display types (Icon / List) in monitoring mode
- Supports 7 different-languages , English, Chinese, French, German, Spanish, Russian, Polish.

### **FUNCTIONS**



## EASY MAINTENANCE

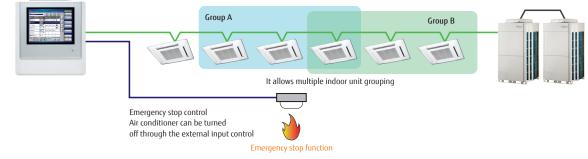
- Flat touch screen is easily cleaned
- Non-glare coating on touch panel controller minimizes fingerprint marking

400

Easy-to-remove front cover



## **UP TO 400 INDOOR UNITS CAN BE CONTROLLED**



## FUNCTION

- Up to 400 indoor units can be controlled
- Multiple indoor units can be grouped and controlled
- Schedule timer function is standard (20 patterns per day)
- Emergency stop function (through the external input control)
- Temperature upper and lower limit setting



Group Set	ting	04/05/2009 Mo	1. 04:52 PM Stati
System Config	uration	Remote C	ontrol Group List
⊠All		🛔 No. Nan	ie –
Office2		000 Cafe	
- BCa	ife	🔺 001 Cafe	
	Cafe2	002 Res	aurant
	Office4	003 Res	aurant1
- Flort I		¥ 004 Res	aurant2
	( V	005 Res	aurant3
New	Property 5	Jp Regist	and
Delete	Move 👂 D	own 🖌 🗲 Add	Property
	Export Data	Import Data	С

Individual control

Flexible grouping

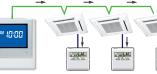




Indoor units operation monitoring

## AUTOMATIC CLOCK ADJUSTMENT

The time setting of each remote control can be set in batch automatically.

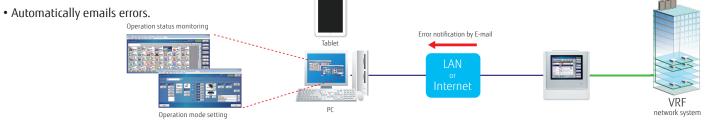


## SPECIFICATIONS

SI LEILIE/ (ITONS	
Model name	UTY-DTGYZ1
Power Supply	100-240V 50/60Hz, Single phase
Dimensions (H x W x D) (in.(mm))	10-1/4 × 9-11/16 × 2-1/8 (260 × 246 × 54)
Weight (lbs.(g))	5 (2150)
Interface	Transmission / LAN / USB / EXT IN / EXT OUT / Reset SW

## **REMOTE MONITORING AND OPERATION FUNCTIONS**

• Internet/LAN remote monitoring and control of the VRF system using a web browser. (Operation status monitoring, Operation mode setting, and error history display)



## **EASY OPERATION**

• Easy-to-understand icon-driven Graphical User Interface (GUI)



- Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon
- Up-to-date status display
- Background color identifies current control operation; Blue for monitoring, green for operational control

**OPTIONAL: ELECTRICITY CHARGE APPORTIONMENT** 

Electricity Charge Apportionment optional add-on USB drive can be added to help users be energy aware and help building owners apply sub-tenant billing.

• UTY-PTGXA must be ordered separately

72



- Emergency stop function: Air conditioner can be turned off through the external input control
- The stored data can be transferred to USB port
- CSV format data edited by PC can be imported to Touch Panel Controller.



	Data transfer available by USB	$ \left  \begin{array}{c} b \\ b \\ c \\$	

## **EASY INSTALLATION**

- Touch Panel Controller does not require mounting an additional power supply.
- No additional components are required for installation.











# **Central Remote Controller**

## UTY-DCGYZ1

For small- and medium-sized buildings and tenants

- Individual control and monitor of 100 indoor units and max. 50 groups
- 7.0inch TFT color screen
- High visibility and easy operation
- Supports max.23 different languages
- Standard language corresponds to 12 different languages. (English, Spanish, German, French, Italian, Russian, Portuguese, Turkish, Polish, Greek, Dutch, Chinese)

• Additional language can be integrated by creative language database. \* (Bulgarian, Czech, Danish, Estonian, Finnish, Croatian, Hungarian, Romanian, Slovak, Slovenian, Swedish)

Batch control o

all indoor unit operation status

Schedule setting

change

ch

Schedule

SE Display

Top Display

72°

72°

-=

Indoor units in the group are expanded.

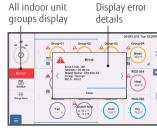
\*: The other language can be overwritten on the registered one.

## EASY OPERATION

- The new central remote controller realized an intuitive operation feeling by touch panel operation.
- All functions can be accessed from the top screen and the • following operations are displayed at pop-up window.

## **TROUBLE SUPPORT FUNCTION**

- Display error details
- Display descriptive explanation • when an error occurs



Sensor value monitoring function Monitor sensor data of indoor unit / outdoor unit, send mail

#### Notify room temperature by email

Notify by e-mail when the temperature around the air conditioner is too high or too low

## 72.5° 72.5° Display error **REMOTE MONITORING / REMOTE OPERATION**

New central remote controller can control your tenant's air conditioner anytime and anywhere.

72°

71°

72°

72.5°

72°

72.5°

Example

- Control / Monitoring Fujitsu air conditioner
- Error notification by E-mail



#### SPECIFICATIONS

Model name`	UTY-DCGYZ1
Power Supply	100-240 V 50/60 Hz
Dimensions (H x W x D) (in.(mm))	5-5/16 × 8-1/2 × 1-1/2 (134.6 × 216.1 × 37.9)
Weight (lbs. (g))	1-21/32 (750)

**CENTRAL CONTROLLERS** 

Office

74°

72°

Auto

All indoor unit

roups display

🔻 Special State 🎁 👌

72.0 \*

Auto / Custom Auto

Air Row Direction

Operation setting are displayed

71°

64°

## **Central Controller**

**CENTRAL CONTROLLERS** 

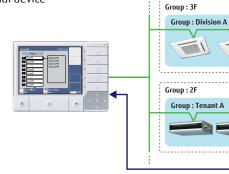
## UTY-DCGY

Central Controller fits small- and medium-sized buildings and tenants.

- Individual control and monitor of up to 100 indoor units • 5 inch TFT color screen
  - User friendly view and easy operation
  - External input / output contact
  - Detachable power supply unit
  - Corresponds to 7 different languages like English, Chinese, French, German, Spanish, Russian, Polish.

## SYSTEM OVERVIEW

- It allows multiple indoor units grouping (Max.16 groups controlled)
- Interlock with external device





## EASY INSTALLATION

- The control panel and power supply unit can be installed separately.
- For flexibility in installation, the control panel can be built into the wall or flush mounted.

## Setting pattern 1 Setting pattern 2 supply unit supply unit Control panel

Control panel + Power supply unit

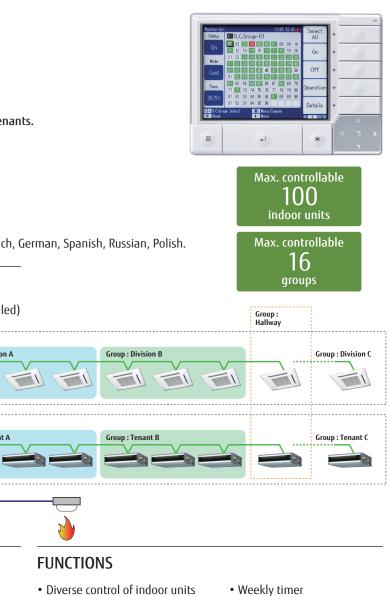
#### **SPECIFICATIONS**

Power

Control nanel

	Control Panel	Power Supply Unit		
Power Supply	DC 5V	100-240V, 50-60Hz, Single phase		
Dimensions (H x W x D) (in.(mm))	4-3/4 × 6-3/8 × 1 (120 × 162 × 25.7)	3-7/8 × 5-5/16 × 1-9/16 (99 × 135 × 39.2)		
Weight (oz.(g))	11 (308) 13 (355)			





- Automatic clock adjustment
- Error history



## **CENTRAL CONTROLLERS**

## **CENTRAL CONTROLLERS**

## System Controller

## UTY-APGXZ1 Software

System Controller provides the advanced integrated monitoring & control of VRF network system from small scale buildings to large scale buildings.

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 units units can be controlled.
- In addition to air conditioning precision control function, central remote control, electricity charge calculation, schedule management, and energy saving functions are strengthened and building manager and owner needs are met.

## System Controller Lite

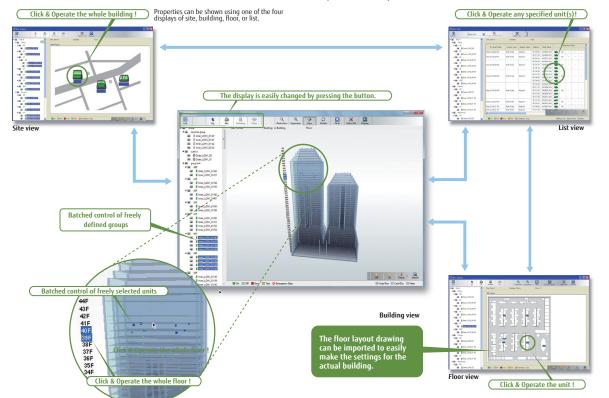
## UTY-ALGXZ1 Software

System Controller Lite is designed for small and medium scale buildings.

- Controls up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units.
- In addition to air conditioning precision control function, a variety of management software add-ons are available as options to give customers a wide range of choice.

## USER FRIENDLY VIEW AND OPERATION

- Click & Operate : The building can be viewed and controlled in a 3D click-able perspective view. Four different views are available: site, building, floor, or list view.
- Freely define groups for batched control : Indoor units can be freely grouped for simple batched control from a BMS tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.



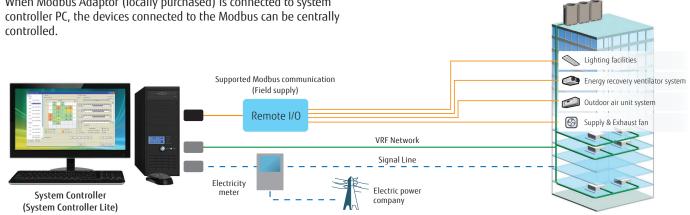
# 400 1,600

100

400

## **3RD PARTY DEVICES CONNECTED BY MODBUS CAN BE CONTROLLED**

When Modbus Adaptor (locally purchased) is connected to system



## **DIVERSE OPERATION MANAGEMENT & DATA MANAGEMENT** Schedule management

- Annual schedules can be set for each remote control group / user defined group.
- Start / stop, operating mode, remote control prohibition, and temperature settings can be set up to 143 times per day at 10 minute intervals for up to 101 configurations for each remote controller group.
- Allows programming of special settings for holidays, including public holidays, for a complete year.
- Low noise operation of outdoor unit can be scheduled.

#### Diverse control of indoor unit

- Indoor unit operation state, operation mode, etc. are displayed
- Indoor unit start / stop and operation mode switching
- Room temperature set point limitation

#### Remote control prohibition

This prohibits changes to the operation mode, temperature, start/ stop, etc.

#### Automatic clock adjustment

The time setting of each controller can be set in batch automatically.

## ELECTRICITY CHARGE APPORTIONMENT

#### Electricity charge apportionment calculation framework

Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With Electricity Charge Apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. This information is then used to calculate the charges for the electricity consumed for air conditioning by each tenant from the total electricity charges in the bill from the electric power company. (See figure at right)

The detailed calculation takes into consideration such things as unused rooms and nighttime electricity charges and shows them in a charges calculation sheet.

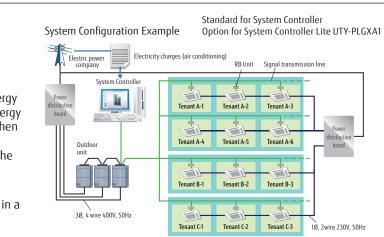
76

Standard for System Controller Option for System Controller Lite UTY-PLGXX2



	Error display & E-mail notification
	Errors provide popup messages, audible sound and e-mails. Errors for the past year are logged and can be reviewed later.
	Database import/export
	Imports/exports registration data, layout data, and image data.
/	Only the administrator can use this setting.
	Operating & control record

Displays the history of operation status and control.





## CENTRAL CONTROLLERS

STANDARD FOR SYSTEM CONTROLLER UTY-PEGXZ1, OPTION FOR SYSTEM CONTROLLER LITE UTY-PLGXR2

VRF Ex

Remote central control and monitor

VRF Control

VRF Ex

VRF Fv

Building n charge of the night shift

1 VRF Explorer can control or monitor up to 10 sites.

1 VRF Controller can be monitored from any number

of VRF Explorers (Up to 5 simultaneous connections).

VRF Explorer Building Management Company A (In charge of the day shift)

VRF Explorer

VRF Controller

, **h** 

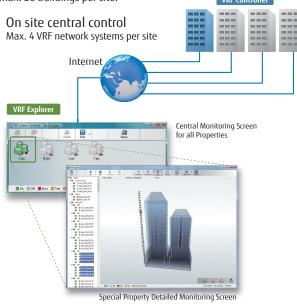
## CENTRAL CONTROLLERS

#### FUNCTIONS SUMMARY

## System Controller and System Controller Light (continued) Software

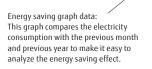
### **REMOTE MANAGEMENT**

System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 software programs working together. VRF Controller runs on site and communicates with VRF system. VRF Explorer runs remotely and provides user interface and communicates with the VRF Controller. VRF Controller and VRF Explorer programs may run on a single PC or on different PCs. By using VRF Explorer software, one PC can perform central control of 10 VRF system sites with max. 20 buildings per site. VRF Controlle



## ENERGY SAVING MANAGEMENT

A variety of energy saving operations can be set and managed depending on the season, weather, and time period. Excellent energy saving operation is performed while keeping users comfortable.





Energy Saving Management Main Screen

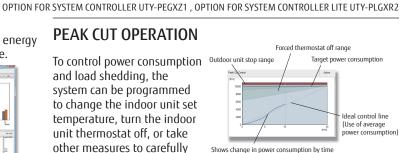
## INDOOR UNIT ROTATION OPERATION

The operation of indoor units can be automatically rotated within a group in accordance with the set annual schedule to reduce power consumption while maintaining comfort. The indoor unit operation stoppage rate can be selected.



Indoor unit rotation screen

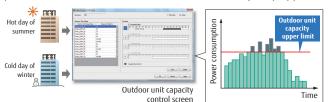
#### To control power consumption and load shedding, the system can be programmed to change the indoor unit set temperature, turn the indoor unit thermostat off, or take other measures to carefully



#### control the amount of power consumed while maintaining comfort.

## OUTDOOR UNIT CAPACITY SAVE

Outdoor unit capacity save switches the outdoor unit capability upper limit to suppress power consumption during hot summers and cold winters by averaging the power saving effect of each refrigerant system. You can select from 50% or more of the capacity upper limit.



	Function Type		System controller		System controller lite				
Function			UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
	Max. VRF network		4	-	1	-	-	-	-
System	Max. indoor unit / remote controller groups per VRF network		400	-	400	-	-	-	-
specification	Max. outdoor unit	s per System controller	100	-	100	-	-	-	-
specification		/ remote controller groups per System controller	1600	-	400	-	-	-	-
		s per System controller	400	-	100	-	-	-	-
	Multi site display	14 11	10	-	10	-	-	-	-
	Number of building	g / I site	20	-	-	-	-	-	-
	Number of floor pe Number of floor pe		200	-	-	-	-	-	-
Site			50	-	-	-	-		-
supervision	3D graphical layou 2D graphical layou	t view	•	-	-	-	_	-	
	List display	L VIEW		-	-	-	-	-	_
	Tree display			-	•	-	_	-	-
	Group display				•	_	_		
	Error notification		•		•		_		
Error	Audible alarm		•		•	_	_		_
management	Error e-mail notific	ation				_	_		_
	Error history	adon	•	_	•	_	_	_	_
History	Operation history		•		•				
,	Control history		•	-	•	-	-	-	-
		On/Off	•	-	•	-	-	-	-
		Operation mode	•	-	•	-	-	-	-
		Room temperature	•	-	•	-	-	-	-
		Fan speed	•	-	•	-	-	-	-
	Individual	Air flow direction	•	-	۲	-	-	-	-
	control	Economy mode	•	-	٠	-	-	-	-
0	control	Room temperature set point limitation	•	-	٠	-	-	-	-
Operation		Test operation	•	-	•	-	-	-	-
control		Antifreeze	•	-	•	-	-	-	-
		Outdoor unit low noise setting	•		•				
	Individual	Remote control prohibition setting	•	-	٠	-	-	-	-
		Temperature upper and lower limit setting	•	-	٠	-	-	-	-
	management Other	Filter sign reset	•	-	•	-	-	-	-
		Memory operation	•	-	•	-	-	-	-
	Pattern operation		•	-	۲	-	-	-	-
	Annual Schedule		•	-	۲	-	-	-	-
	Special day setting		•	-	•	-	-	-	-
	On /off per day		72	-	72	-	-	-	-
Schedule	On / off per week		504	-	504	-	-	-	-
	Day off		•	-	•	-	-	-	-
	Min. unit of timer		10	-	10	-	-	-	-
	Low noise mode W		•	-	•	-	-	-	-
	Remote monitorin		•	-	-	•	-	-	-
Remote	Remote operation		•	-	-	•	-	-	-
managemment	Remote function s		•	-	-	•	-	-	-
	Web Remote Contr		•	-	-	•	-		
		arge/bill calculation	•	-	-	-	•	-	-
Electricity	Tenant (block) set	ting	•	-	-	-	•	-	-
charge	Common facilities	apportionment setting	•	-	-	-	•	-	-
apportionment	kated power const	Imption allotment setting	•	-	-	-	•	-	-
opp stelonment	Individual calculat	ion at cooling and heating		•*	-	-	•	-	-
	Electricity meter si		-	•	-	-	•	-	-
	Indoor unit rotatio	11	-	•	-	-	-	•	-
Enoray	Peak cut control		-	•	-	-	-	•	-
Energy	Outdoor unit capa		-	•	-	-	-	•	
saving	Record of energy s	aving operation		•		-		•	-
management	Energy saving info		-		-	-	-	-	-
	Power consumptio	in monitor	-	•	-	-	-	•	-
External Device	Monitor	upported	•	-	-	-	-	•	-
				-	-	-	_	-	
Control	Control		•		-	-			•
	Database import/e		•	-	•	-	-	-	-
Others	Automatic clock ac	ljustment	•	-	•	-	-	-	-
	Multi language		7 languages	-	7 languages	1	_	-	-

## Available. -: Not available. \*: Power calculation application software is necessary, please contact the local Fujitsu representative.

#### PERSONAL COMPUTER SYSTEM REQUIREMENTS

Model name		System Controller	ſ		System	Controller Lite		
Operating system	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)</li> <li>Supported languages [English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>							
CPU	Intel <sup>®</sup> CoreTM i3 2 GHz o	tel® CoreTM 13 2 GHz or higher						
Memory	• 2 GB or more (for Wind	lows Vista® and Windov	ws® 7 [32-bit]) • 4 GB	or more (for Windows®	® 7 [64-bit], Windows® 8	.1, and Windows® 10)		
HDD	40 GB or more of free sp	ace						
Display	1024 x 768 or higher res	olution						
Interface	•USB ports (Maximum o (Required only for the S - Maximum of 2 USB ports	access to the Internet u f 6 ports) Server PC that works as s are required for WHITE- s are required for Echelor	sing Public Telephone Li VRF Controller) USB-KEY/WibuKey conne n® U10 USB Network Inter	ne) or Modem (fo •USB ports (Ma (Required onl ction - Maximum of 4 face - 1 USB port is	•USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller) • Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connection • 1 USB port is required for Echelon <sup>®</sup> U10 USB Network Interface * The maximum number of required USB port depends on the applicable system			
Graphic accelerator	Microsoft® DirectX® 9.00	Microsoft® DirectX® 9.0c compatible						
Software	Adobe® Reader® 9.0 or later							
<ul> <li>Personal computer that satisfies the fol</li> <li>Echelon<sup>®</sup> U10 USB Network Interface (R</li> </ul>	lowing system requireme equired for each VRF Net	ents work.)						
	For System	controller	For System controller Lite					
Packing list	Option			Option				
	System controller	Energy manager	System Controller Lite	Remote access	Electricity charge apportionment	Energy saving	Central Contro	
Model name	UTY-APGXZ1	UTY-PEGXZ1	UTY-ALGXZ1	UTY-PLGXR2	UTY-PLGXA2	UTY-PLGXE2	UTY-PLGXX2	
alouer nume								

Software protection key to be inserted in a USB slot running System Controller or System Controller Lite. System Controller or System Controller Lite may only run on a PC with WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.

78

79



## **Network Convertor**

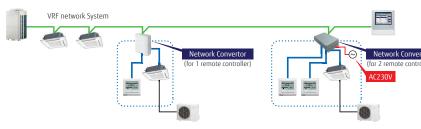
## UTY-VTGX (DC power supply) UTY-VGGXZ1 (AC power supply)

Network Convertors add Fujitsu mini-split control to the VRF communication network.

### **INSTALLATION EXAMPLE**

• The convertors are required when connecting single split units to the VRF communication network system. Administrators can manage the VRF system including single split by way of VRF central controller.

#### Single split with VRF



## ACCESSORIES

AC power supply



DC power supply

## SPECIFICATIONS

100

Model name	UT	Y-VTGX	UY-VGGXZ1		
Power Supply	polar 3-wire DC12V DC12V		220-240 V 50/60 Hz		
Input power (W)	Max. 2		Max. 3		
Dimensions (H x W x D) (in.(mm))	4-5/8 × 5-1/2 × 1-9/16 (117 × 140 × 40)		2 × 10 × 6 (54 × 260 × 150)		
Weight (oz.(g))	9 (250)		9 (250)		38.8 (1,100)

## **ACCESSORIES**

# **External Switch Controller**

## UTY-TERX

Air conditioner switching can be controlled by connecting other sensor switches

- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a field supplied parts.

#### SPECIFICATIONS

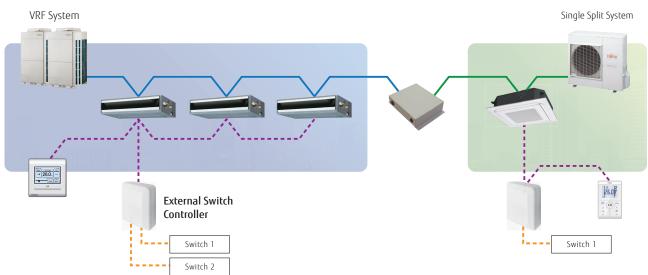
Model name	UTY-TERX
Power Supply	DC6.5 - 16V
Dimensions (H x W x D) (in.(mm))	1-11/16 × 5-1/2 × 4-5/8 (43 × 140 × 117)
Weight (lbs.oz.(g))	9 oz. (250)
DC12V is supplied by the indees unit	

DC12V is supplied by the indoor unit

#### FUNCTIONS

On/Off	•	Fan speed setting	•
Off	•	Operation mode setting	•
Room temperature setting	•	Prohibition setting	•

#### SYSTEM OVERVIEW

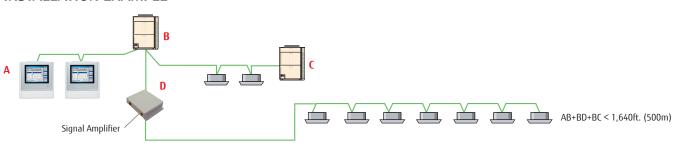


## **Signal Amplifier**

## UTY-VSGXZ1

- Transmission Line length can be extended up to 11,811ft. (3,600m) with multiple Signal Amplifiers.
- Up to 8 signal amplifiers can be installed in a single VRF communication network system.
- A signal amplifier is required,
- (1) When the total wiring length of the transmission line exceeds 1,640ft. (500m). (2) When the total number of units on the transmission line exceeds 64.

## INSTALLATION EXAMPLE



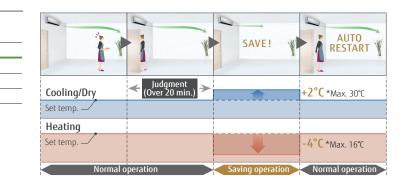
## SPECIFICATIONS

Model name	UTY-VSGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Input power (W)	4.5
Dimensions (H x W x D) (in.(mm))	2-5/8 × 11-5/6 × 8-5/16 (67 × 288 × 211)
Weight (lbs.oz.(g))	3lbs. (1,500)



#### The set temperature can be specified for cooling and heating individually

Occupancy sensors can be used to setback temperature and fan speed when room is unoccupied. These setbacks are reverted when people come back to the room.



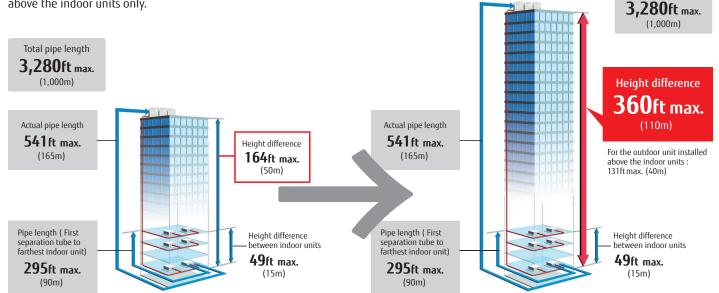


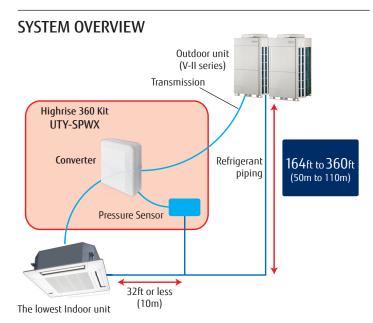
## Highrise 360 Kit (for V-II Series\*)

## **UTY-SPWX**

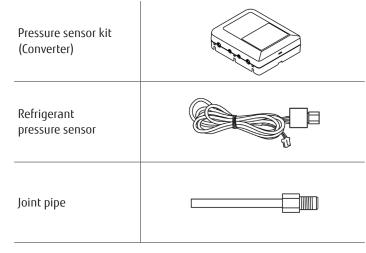
## **DESIGN FLEXIBILITY**

The Highrise 360 kit increases the 164ft height difference on V-II Series between the outdoor unit and furthest indoor unit to 360Ft. This kit improves the height when the outdoor units are installed above the indoor units only.





## **HIGHRISE 360 KIT COMPONENTS**



\* NOTE: This product can be used on newer V-II series only. For outdoor units with manufacturing dates before January 2018, a software upgrade can be requested. Please contact Fujitsu technical support for details.

**ACCESSORIES** 

Total pipe length

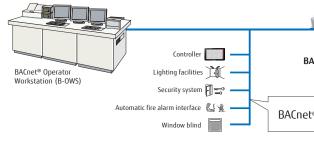
## **BMS COMMUNICATION OPTIONS**

## BACnet<sup>®</sup> Gateway (Hardwar

## UTY-VBGX

- BACnet<sup>®</sup> Gateway connects a VRF system to a BMS via BACnet<sup>®</sup>
- A maximum of 128 indoor units and 32 refrigerant systems can connected to a single BACnet<sup>®</sup> Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.

## INSTALLATION EXAMPLE



### SPECIFICATIONS

Model name	UTY-VBGX	Model name	UTY-VBGX
Number of controllable indoor units	128	Power supply	208-240V 50/60Hz, single phase
Number of controllable refrigerant system	32	Input power (W)	4
Number of controllable VRF network	1	Dimensions (H x W x D) (in.(mm))	10-1/4 × 2-5/16 × 5-11/16 (260 × 59 × 145)
Number of connectable Gateways / one VRF network	4	Weight (lbs.oz.(g))	39oz (6100)

# **BACnet**<sup>®</sup> Gateway

## UTY-ABGXZ1 (Software)

- Connect VRF network system to BMS via BACnet IP, a global standard for open networks.
- system) can be connected to one BACnet<sup>®</sup> Gateway.
- Compatible with BACnet<sup>®</sup> (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish

## PERSONAL COMPUTER SYSTEM REQUIREMENTS

Model name	
Operating system	Microsoft® Windows® 7 Home Premium (32-bit or 64     Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows     Microsoft® Windows® 10 Home (32-bit or 64-bit), Wi Supported languages: English, Chinese, French, Germa
CPU	Intel® CoreTM i3 2 GHz or higher
Memory	<ul> <li>2 GB or more (for Windows<sup>®</sup> 7 [32-bit])</li> <li>4 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.</li> </ul>
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	Ethernet port (for getting access to the Internet usin     USB ports (Maximum of 5 ports)     1 USB port is required for WHITE-USB-KEY connecti     Maximum of 4 USB ports are required for Echelon®     * Maximum number of required USB ports depends
Software	Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive
	0.

ге)				
IP. i be on	Max. controll 1 VRF network sy Max. controll 32 outdoor un Max. controll 128 indoor uni	istems able its able		
ACnet® Gateway (Hardware)		.128 indoor units		nit
Model name Power supply		2	UTY-VBGX 208-240V 50/60Hz, sinc	ale phase
				/ - F



400

1,600

• A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network

• Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet® Gateway. Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer

UTY-ABGXZ1 4-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 vs® 8.1 Pro (32-bit or 64-bit) 'indows® 10 Pro (32-bit or 64-bit) ian, Russian, Spanish, and Polish

8.1 and Windows®10)

ing LAN)

<sup>®</sup> U10 USB Network Interface s on the applicable system configurations





## **BMS COMMUNICATION OPTIONS**

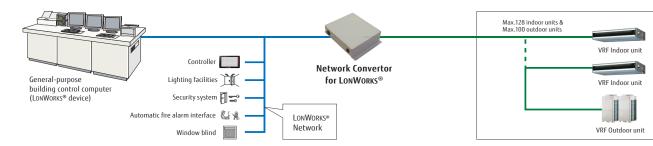
## SERVICE & MONITORING

## Network Convertor for LONWORKS<sup>®</sup>

## UTY-VLGX

- Connects VRF network system to a BMS network via LONWORKS<sup>®</sup> open network.
- The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS<sup>®</sup> interface.
- Up to 128 Indoor units can be connected to one Network Convertor for LONWORKS®

## **INSTALLATION EXAMPLE**



Transmission speed

Transmission way form

Terminal resistor

Transceiver

## SPECIFICATIONS

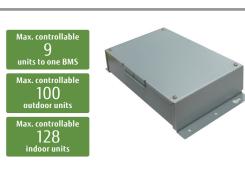
Model name	UTY-VLGX
Power Supply	208-240V 50/60Hz, Single phase
Input power (W)	4.5
Dimensions (H x W x D) (in.(mm))	2-5/8 × 11-5/16 × 8-5/16 (67 × 288 × 211)
Weight (lbs.oz.(g))	3lbs. (1,500)

## **MODBUS®** Convertor

## UTY-VMGX UTY-VMGU-KIT

VRF System can be integrated with the Building management system supported by MODBUS® RTU.

39 oz. (1,100)



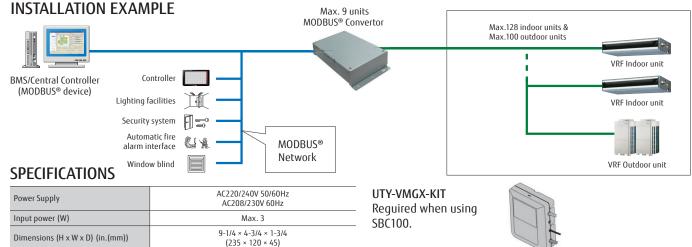
78 kbps

FT-X1 (Echelon® Corporation)

Free topology None

(It attaches at the terminal of a network.)

TRANSMISSION SPECIFICATIONS (BMS SIDE)





## Service Tool

## UTY-ASGXZ1 Software

Extensive monitoring and analysis functions for installation and maintenance

- Operation status can be checked and analyzed to detect even the smallest abnormalities
- Offer secure remote monitoring and control
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF network system) can be controlled and monitored for large scale buildings or hotels
- This software can be connected to any point of transmission line with USB adaptor (Locally purchased).

## AUTOMATIC OPERATION CHECK FOR **REFRIGERATION CYCLE**

After product installation, operation check can be performed automatically. Self-diagnosis function automatically judges whether each sensor value is normal, so the operation check work can be reduced. The diagnosis can also be output as a report.

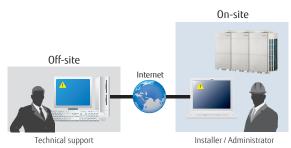


[Note] Use only as a guide and judge for yourself finally.

## **REMOTE TECHNICAL SUPPORT & MAINTENANCE**

On-site check screen can be shared remotely. When visiting for troubleshooting on-site, operation status can be shared in real time.

Online chat function helps to support on-site staff.



## PERSONAL COMPUTER SYSTEM REQUIREMENTS

Operating system		<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Professional (32-bit or 64-bi</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 10 Pro (32-bit or 64-bit)</li> </ul>			
CPU		1 GHz or higher			
Memory		<ul> <li>1 GB or more (for Windows Vista<sup>®</sup>, Windows<sup>®</sup> 7 [32]</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup></li> </ul>			
HDD		40 GB or more of free space			
Display		1366 x 768 or higher resolution			
Interface		<ul> <li>2 USB ports</li> <li>1 USB port is required for software protection key c</li> <li>1 USB port is required for Echelon<sup>®</sup> U10 USB Netwo</li> </ul>			
Software		Internet Explorer® 11 or Microsoft Edge / Adobe® Read			
Packing List	Quantity	Application			
WHITE-USB-KEY (Software protection key)		Software protection key to be connected to USB port of These products runs only on a PC with WibuKey.			

•Personal computer that satisfies the following system requirements •Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)

Weight (lbs.oz.(g))





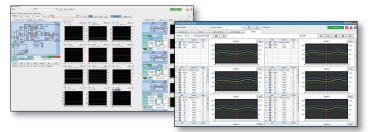
\* The saved data can be displayed offline. However, the data saved by the following model cannot be displayed. • UTR-YSTB/UTR-YSTC (Service Tool) • UTR-YMSA (Web Monitoring Tool)

### Whether each sensor value is normal is judged automatically. V Discharge temperature normal value 이 🖌 Super heat volume normal value 🛛 🛛 🗹 High pressure pipe normal value 🛚 🛛 V Low pressure pipe normal value OK etc



## MULTIPLE TREND GRAPH DISPLAY AND COMPARISON

- Multiple graphs can be displayed in Service Tool depending on the situation.
- Up tp two offline data files can be viewed and compared simultaneously



bit) SP1

bit], Windows<sup>®</sup> 8.1 [32-bit], and Windows<sup>®</sup> 10 [32-bit]) 8.1 [64-bit], and Windows® 10 [64-bit])

connection ork Interface ader® 9.0 or later

on the Service Tool-installed PC



## **SERVICE & MONITORING**

## SERVICE & MONITORING

## **FUNCTIONS**

#### 1) System List

Displays the overall operation status of all or specified units in the system in a list form.

#### 2) Equipment Detail (Diagram)

Displays the detail information for sensor values, electrical components etc. for the specified units in schematic. The information here can be used along with the detail information in list form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.

#### 3) Equipment Detail (List)

Displays the detail information for sensor values, electrical components etc. of units in a specified refrigerant system in list form. The information here can be used along with the detail information in diagram form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.

#### 4) Operation History

The indoor units or outdoor unit operation history can be recorded. The displayed operation history can be printed out and saved to a CSV file.

#### 5) Error History

Displays the error information for each unit. The error information can sequentially be displayed up to 50 items as they occur starting with the latest error.

#### 6) Remote File Download

Operation and error history can be downloaded. User can choose which data download by specifying the system, unit and time frame.

#### 7) Commissioning Tool

During a test run, the outdoor unit/indoor unit sensor data can be saved for completing the commissioning report. When test concludes , this data can be exported in CSV file format.

#### 8) Network Topology Analyzer

A list of units connected to the VRF system network is displayed in network segments in tree form.

#### 9) Remote Setting

Setting of the indoor unit can be performed remotely.

			VRFHotel			19.58	Ren Last	Detail	- F.	listory	(F.8	mör 16.6	w P	Control	· · · · ·	Dets (F	Toublethook
dapi	or Ad	aptorf	O Al Units O	Ref. No.	C	Print	Option	•						۳A	uto ceffresh		(00-00) xr(01-00)
ut	Unit	<u>8.00</u>	Base	Model	Туря	Copacity (BTUB)	Senso	Operations	Modi	Set Temp. C O	Room Temp. C O	HEI In C G	HE1 Mai 1 Ci	EEV (P)	Erret	Special Operation	j.
00	222			Out	Heat Pump			ON	1ding		-	+		-	Normal		
	00			In	Wall Mounted	7000	IB	ON	Cool	26	0	16	16	1600	Emor2	-	Ân
	00		LOA Fre	Out	Heat Recovery	S	1	ON	iding				•	1600	Emil2		Lo
01	99	00	1/1A Ini	In	Wall Mounted	7000	10.6	ON	Cool	26	15.5	1.6	16	1600	Normal		A
00	62	62	1/1A 162	In	Wall Mounted	7000	1/LA	ON	Cool	26	15.5	16	16	1600	Normal		h
	63	63	Edd Ind3	In	Wall Mounted	7000	-1/LA	ON	Cool	26	15.5	16	16	1600	Normal	(4)	A
	00	-		Out	Heat Pump	-	16	ON	Ming	1.4				1600	Normal		Lot
22	22			In	Universal	7000	1/1.6	ON	Cool	26	15.5	16	16	1600	Normal		Å
	00		1/1A Cooling 407	Out	Cooling Only		16	ON	Idine					1600	Normal		2
13	00		MA 163	In	Well Mounted	7000	1/LA	ON	Cool	26	15.5	16	16		Normal		h
		_	1/1A Cooling22				18	ON	Mar					0	Normal		Lo
14	00		1/IA Dooling22	Out	Cooling Only Wall Monated	- 2000	1A 1/LA	ON	Cool	- 26	*	+ 16	- 16	1600	Normal		Lo
	- 10		DUA DA	in	war brozher	.000	INK	<u>ON</u>	0.001	- 40	155	10	10	1000	14CEBB66	*	R
	92		13 Heat Pump M14	Out	Heat Peeup			ON	1dbag		-				Normal		
10	62			Out				ON	1ding						Normal		
	00		1B Int	In	Universal	7000	1B	ON	Cool	26	-25	16	16	1600	Normal	+	H

#### 10) System Time Setting

Time of day setting, for all controllers in a system, can be performed simultaneously.

#### 11) Software Version

The software version of units are acquired and displayed.

#### 12) Central Release

Limitations on individual indoor units can be released from the central controller (remote controller limit, temperature limit).

#### 13) Model Name Writer

A custom model name can be given for an indoor unit.

#### 14) Error Memory Reader

When an error occurs in an indoor unit, the system records the operation data before the error and saves to a CSV file.

Note: To perform "Error Memory Reading", the Service Tool must be connected directly to the corresponding outdoor unit. Refer to the Operation Manual of the Service Tool for detail.

#### 15) Time Guard Information

Data for determining maintenance schedule (integrated time for compressor, fan, etc.) for the indoor and outdoor units can be output to a CSV file.

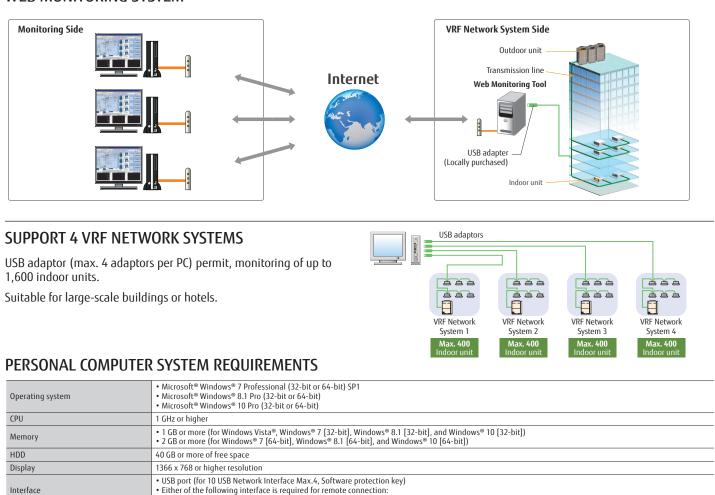
## Web Monitoring Tool

#### UTY-AMGXZ1 Software

Product features

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet.
- Requires a dedicated internet connection.
- Determination of an error occurrence can be made through error warnings and equipment status information obtained from a remote location.
- The monitoring data can be downloaded and displayed offline in the service tool.
- No special software needed to view data remotely, requires only general web browser.

#### WEB MONITORING SYSTEM



#### SUPPORT 4 VRF NETWORK SYSTEMS

1,600 indoor units.

Suitable for large-scale buildings or hotels.

## PERSONAL COMPUTER SYSTEM REQUIREMENTS

Operating system		<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Professional (32-bit or 64- Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 10 Pro (32-bit or 64-bit)</li> </ul>			
CPU		1 GHz or higher			
Memory		<ul> <li>1 GB or more (for Windows Vista<sup>®</sup>, Windows<sup>®</sup> 7 [32]</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup></li> </ul>			
HDD		40 GB or more of free space			
Display		1366 x 768 or higher resolution			
Interface		<ul> <li>USB port (for 10 USB Network Interface Max.4, Sof</li> <li>Either of the following interface is required for ren         <ul> <li>Internet using LAN: Ethement port is required</li> </ul> </li> </ul>			
Software		Internet Explorer® 11 or Microsoft Edge / Adobe® Re			
Packing list Quantity		Application			
WHITE-USB-KEY (Software protection key)		Software protection key to be connected to USB por These products runs only on a PC with WibuKey.			

Personal computer that satisfies the following system requirements
 Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)



eader® 9.0 or later

rt on the Service Tool-installed PC.

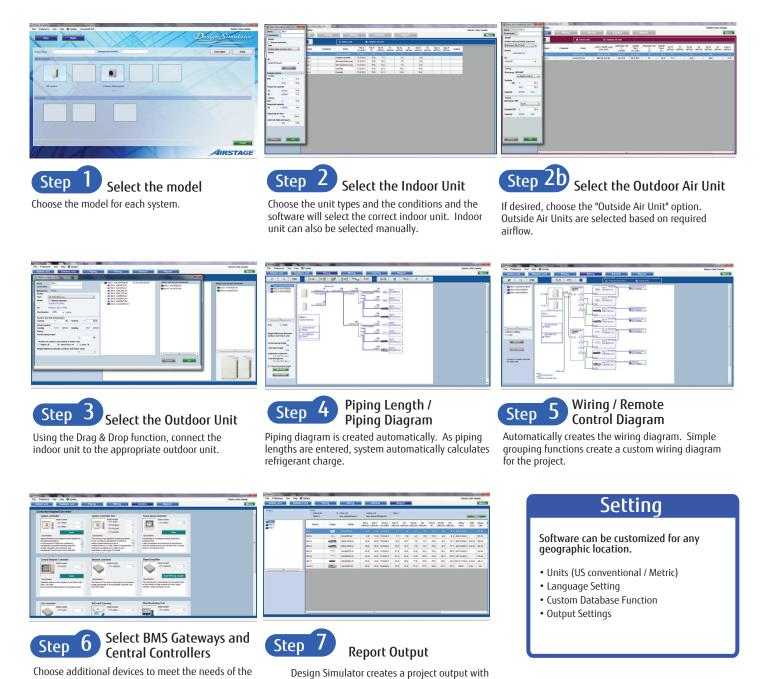


# 

## **Design Simulator**

## EASY EQUIPMENT SELECTION, COMPLETE SELECTION OUTPUT, RELIABLE PROJECT MANAGEMENT

Design Simulator makes it easy to design and select equipment for complex building HVAC systems. The software output contains all important design data including: Equipment Schedule, Piping and Wiring Layout, etc. (all of the documentation needed to estimate a project.) Design Simulator simplifies the design process. To design a system, just select the indoor unit types for each system, and the software will automatically select the outdoor unit and create the piping and wiring diagram. Design Simulator also checks all of the equipment information to ensure proper installation.



all of the project schedules and schematic drawings.

## SOFTWARE REQUIREMENTS

Software	Design Simu	ılator
Operating System	Microsoft Wi	ndows Vista / 7 / 8
		CPU: Intel® Co
	Hardware	Memory: 2GB
System Dequirements		4GB or more (
System Requirements	Display	1024 x 768 do
		Internet Explo
	Software	Acrobat Reade
		Microsoft Word

	Output					
Equipment selectio standard industry fi	ns and schedules can b le formats.	e output in				
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<ul> <li>Word format</li> </ul>	<ul> <li>Excel format</li> </ul>	<ul> <li>Auto CAD format</li> </ul>				
• 2D Data	• 3D Data (RevitMe	ep data)				
Wiring and piping schematic drawings						

# **Building Information Modeling (BIM)**

Fujitsu provides the Building Information Modeling (BIM) object models and contents for our VRF system to the architect, designer and contractor using Autodesk<sup>®</sup> Revit<sup>®</sup> technology.

#### **REQUIRED SOFTWARE**

Autodesk<sup>®</sup> Revit<sup>®</sup> series software

Data format • RFA

- Autodesk<sup>®</sup> Revit<sup>®</sup> Architecture Autodesk<sup>®</sup> Revit<sup>®</sup> MEP
- Autodesk<sup>®</sup> Revit<sup>®</sup> Structure

88

project.

ore™ i3 Processor 2GHz or higher

3 or more (Windows® XP, Windows Vista®, Windows® 7 32-bit)

(Windows<sup>®</sup> 7 64-bit). HDD: 10GB or more of free space

ots or more

orer 7.0 or later

er 9.0 or later

rd 2003 / 2007 / 2010

## Auto Update

Software updates automatically with the latest product data.



Request for update

Latest information is transmitted

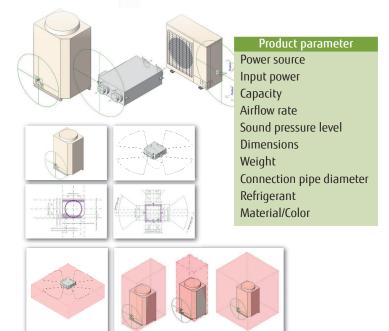
FTP server side (PC)

Updates product information



• Maintains software integrity

Maintains software history





## **DESIGN TOOLS**

FUJITSU

## **DESIGN TOOLS**

## Cypetherm Fujitsu with EnergyPlus™

## Intuitive Airstage Energy Modeling

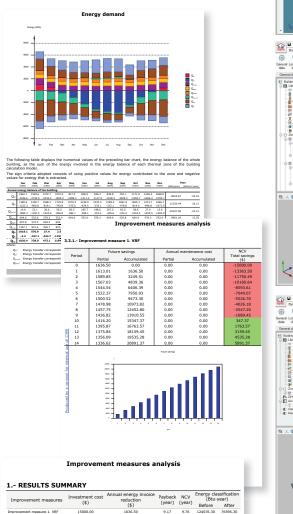
This software allows you to model and simulate HVAC energy demand and consumption in the building with Airstage and compare with other commonly used HVAC equipment. Estimate potential energy savings and ROI values.

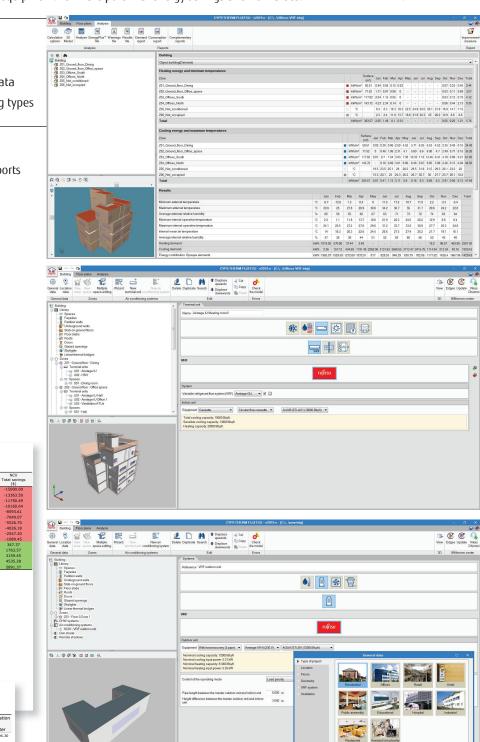
## EASY MODELING

- Easy Wizard for Modeling •
- 200 plus US cities included for weather data
- Default values selected based on building types

## SIMPLE REPORTS

- Simple Energy Demand/Consumption reports
- Comparison with existing HVAC system
- ROI, NCV number





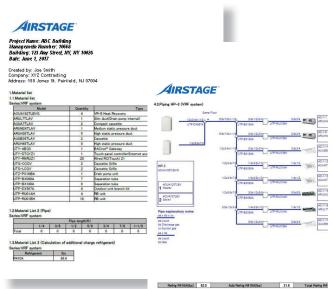
# Airstage Project Manager (APM)

## For Distributors and Reps APPLIES TECHNOLOGY TO SIMPLIFY PROJECT MANAGEMENT AND ENSURE A SUCCESSFUL VRF INSTALLATION.

- Central Project Host for Sales Team
- Track all project status
- Upload project files and equipment list
- Automated quotes and Submittal packages creation
- Get price support and place orders
- Upload Commissioning documents
- Print Extended Warranty

### THE APM INTEGRATES WITH THE DESIGN SIMULATOR

- Project users can generate Engineering Submittal Packages using only a few mouse clicks.
- Users can use this integration to create numerous customizable quotes.
- Purchasing can be easily managed through the quoting system.



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ratege Project Information	Project Status	
roject Name: ddress:	Project Status: D Sale Probability:	None - Extended Warranty Approved 100%
roject Type: ource of Lead:	Web Orders: 145205 - 03/06/21 145212 - 03/06/21 145213 - 03/05/21 Rebate	013
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## **AIRSTAGE**

	UTP-RUDIEH	AC-5-1 ARUH4STLAV
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	UTP-RUDIEH	AC-16 ARUHestLav
	UTE-RUDIEH	0.02 0.254
		AC-1-11 AC-1-11 AUUBSETLAV
HP-3 AOUA1927LBVD	0.02	L1.1.2 0.25A
	UTP.RUDIAH	AC-1-12 AUUATTLAV
ADUA120TLBV 1 Master U1223	0.02	L1.12 0.254
SPitalea, 2001, 60H2	UTRAUDIAH	AC-1-13 ADUATTLAY
ADUATZTLEV 2 Slave1 2 ct 1213	11.12	L1.12 0.25A
5Prane, 2001, 60H2	UTP-RUDIAH	AC-5-14 ARUMONTLAV
Pour ine	11.12	L11.2 0.25A
Outdoor	UTP-RUDIAN	AC-1-16 ARULTILAV
Breaker MCA Diameter	1112	11.12
Indoor, RB unit	UTP-RUOISH	
MCA Diameter	UTP-AUSTINA	AC-1-17 AUUESETLAV
Total power line Braskar	U1.12	L1.12 2,754





## Piping Accessories

## SEPARATION TUBES

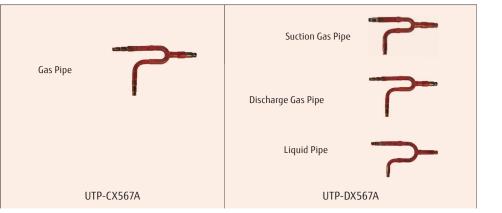
Gas Pipe	Gas Pipe	Gas Pipe
Liquid Pipe	Liquid Pipe	Liquid Pipe
011-470304	017-4X100A	011-4730/7
Suction Gas Pipe	Suction Gas Pipe	Suction Gas Pipe
Discharge Gas Pipe	Discharge Gas Pipe	Discharge Gas Pipe
Liquid Pipe	Liquid Pipe	Liquid Pipe
UTP-BX090A	UTP-BX180A	UTP-BX567A

## SPECIFICATIONS

#### Separation Tube

Model name	UTP-AX054A	UTP-AX090A	UTP-AX180A	UTP-AX567A	
Total cooling capacity of indoor unit (X)(kBTUh)	X < 66.0 X < 96.5		$96.5 \le X < 193$	193 ≤ X	
Model name	_	UTP-BX090A	UTP-BX180A	UTP-BX567A	
Total cooling capacity of indoor unit (X)(kBTUh)	-	X < 96.5	96.5 ≦ X < 193	193 ≦ X	

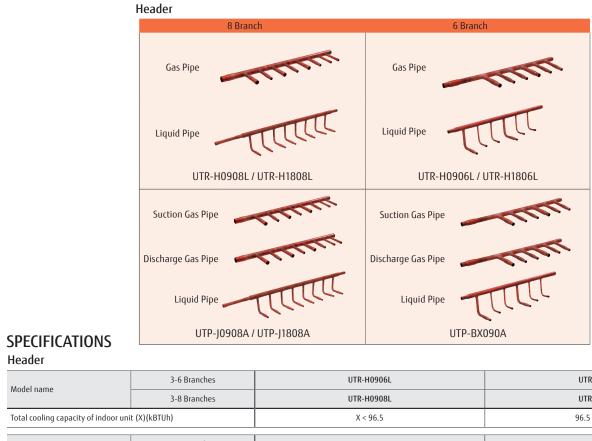
#### Outdoor Unit Branch Kit



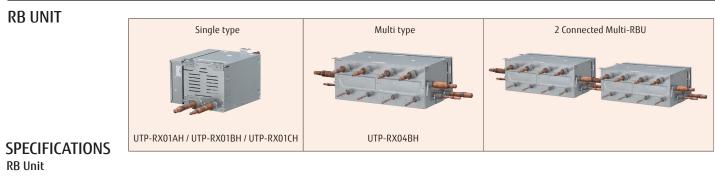
## SPECIFICATIONS

Outdoor Unit Branch kit

Model name		UTP-CX567A (for V-II)	UTP-DX567A (for VR-II)
Number of Outdoor unit	2 outdoor units	1	
	3 outdoor units	2	



Model name	3-6 Branches	UTR-H0906L	UTR-H1806L
	3-8 Branches	UTR-H0908L	UTR-H1808L
Total cooling capacity of indoor unit (X)(kBTUh)		X < 96.5	96.5 ≤ X < 193
Model name	3-6 Branches	UTP-J0906A	UTP-J1806A
	3-8 Branches	UTP-J0908A	UTP-J1808A
Total cooling capacity of indoor unit (X)(kBTUh)		X < 96.5	96.5 ≤ X < 193



Туре			Multi type		
Model name		RU01AH	RU01BH	RU01CH	RU04BH
Power source			Single phase	230V, 50Hz	
Input power	W	28	28	41	110
Number of branches		1	1	1	4
Maximum capacity of connectable indoor units (Q)	kBTUh	Q ≦ 28	Q ≦ 60	Q ≤ 96	Q ≦ 191*1
Maximum capacity of connectable indoor units per branch (Q)	kBTUh	Q ≦ 27	Q ≦ 60	Q ≦ 96	Q ≦ 96
Maximum number of connectable indoor units per br	anch	3	8	8	8
Dimensions (H×W×D)	in.(mm)	7-13/	7-13/16 × 11-3/4 × 10-9/16 (198 × 298 × 268)		

\*1: In case of two RB units connected in series ( total 8-branches ), maximum capacity of connectable indoor units is up to 191kBTUh

Header



## **Optional Parts Overview**

## **Optional Parts** For Cassette

UTG-LCGV 📼

UTG-LCGVCW

UTG-LCGVCB

For Cassette



UTG-CCGVG

For Compact Cassette

UTG-CCGV

For Cassette

For Compact

Cassette

Human Sensor Kit The room temperature can be controlled by detecting the temperature accurately from the built-in sensor

#### **Cassette Grille**

Cassette grille lineup matching the various interior is available. In addition, grid ceiling type cassette grille is also added to the lineup.

For Circular Flow Cassette

## UTZ-VXRA UTZ-VXAA

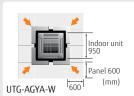
Fresh Air Intake Kit Fresh air can be taken in by a fan which can be connected using external control unit.

UTZ-KXGA for Cassette AUUB30,36 UTZ-KXGB for Cassette AUUB18,24 UTZ-KXGC for Compact Cassette AUUA7 thur AUUA24

Insulation for High Humidity Insulation for High Humidity is used when the installation location is in the high humidity environment.



UTR-YDZB For Cassette



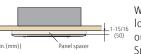
UTG-BGYA-W

Air Outlet Shutter Plate According to the installation site, the number of outlet directions can be changed to 3 directions by Air Outlet Shutter Plate.

## Wide Panel

When the cassette type is installed at the narrow space above ceiling, the space can be filled in by Wide Panel.

#### Panel Spacer



When the space above the ceiling is low and the main body is projected out of the ceiling surface, Panel Spacer can be used as decoration



## **Optional Parts** For Floor



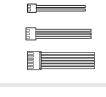
Half Concealed Kit This kit is used to half conceal floor type indoor unit into the wall.



VRF COMMUNICATION CABLE
For VRF Communication
LonWorks <sup>®</sup> Cable
K00250LW
K00500LW

## **Optional Parts** For Duct & Ceiling

UTD-GXSA-W / UTD-GXTA-W UTD-GXTB-W (see pg 96 for details)	Auto Louver Grille Kit Simple flat Auto louver will provide comfort airflow and harmonize with luxury Interior
UTY-XSZX	<b>Remote Sensor Unit</b> New amenity space can be offered by installing the Remote sensor.
UTD-LF25NA UTD-LF60KA	Long Life Filter Grit and dust can be caught sufficiently. In consideration of running cost, long-life design is achieved.
UTD-SF045T	<b>Flange</b> Flange is used for Medium Static Pressure Duct type and Ceiling type to connect between pipes.
UTZ-PX1NBA UTR-DPB24T	<b>Drain Pump Unit</b> This device can drain the collected water during operation.



## External Connect Kit & Set

These wires can connect between the product PCB and external device.



#### **Connection Units**

Connection units are provided to separate the pipes at the connection of multiple indoor units in Multi type or VRF system.



# Auto Louver Grille Kit (Option)

Models UTD-GXSA-W / UTD-GXTA-W UTD-GXSB-W

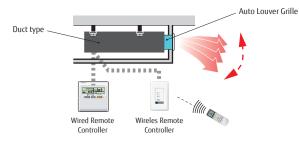
Available for Mini and Slim Ducted Indoor Units (page 34)



Feature

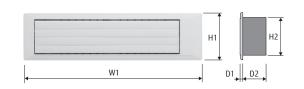
#### **Flexible Control**

- Operation with indoor unit
- Auto Louver can be controlled by remote controller of indoor unit. • UP and Down auto swing
- Fixed airflow or auto swing
- 4 angle settings
- Auto-closing louver
- When operation of indoor unit is stopped, the louver will automatically close.









						Unit: In.
Model Name	W1	W2	H1	H2	D1	D2
UTD-GXSA-W / UTD-GXTA-W	26-7/8	25-3/8	7-1/16	5-13/16	3/8	3-5/16
UTD-GXSB-W	34-3/4	33-1/4	7-1/10	J-13/10	0/6	01/10

#### Specifications

Model name			UTD-GXSA-W / UTD-GXTA-W	UTD-GXSB-W		
Applicable Inde	oor Unit		UTD-GXSA-W: ARUL7/9/12/14TLAV   UTD-GXTA-W: ARUL4TLAV1 ARUL18TLAV			
Power Supply			Connecting with Control box of indoor unit			
Fixing of Auto	Louver Grille		Screw fixing to Fla	nge or Square Duct		
Extension Squa	are Duct Limit		39-3/8" (Max. duct length be	etween indoor unit and grille)		
Net Dimension (H x W x D)		inch (mm)	7-1/16x26-7/8x(3-5/16+3/8) [180x683x(84+9)]	7-1/16x34-3/4x(3-5/16+3/8) [180x883x(84+9)]		
Weight	Net	lb.	4.4 (2.0)	5.6 (2.5)		
weight	Gross	(kg)	6.7 (3.0)	7.8 (3.5)		
Color			White			
Louver Motor			Stepping Motor			
Accessories			Fitting Flame, etc.			
a	Cooling	64 to 90 (18 to 32)		(18 to 32)		
Operation range	Cooning	% RH	80%	or less		
lange	Heating	°F (°C)	50 to 86	(10 to 30)		



## AIRSTAGE WEBSITE (for building owners) www.fujitsugeneral.com

#### A place to learn the basics

Go to the Commercial portion of our web site to learn more about Fujitsu's Airstage VRF products and programs such as:



Case Studies

- Basic Product Overview
- Specifications & Downloads
- Service & Support
- Locate a Contractor or Distributor
- AIRSTAGE PORTAL (for Engineers and Contractors) https://portal.fujitsugeneral.com

#### A central place for project stakeholders to coordinate

The Airstage Portal provides a single source for all information for Fujitsu Airstage VRF Systems. From the Airstage Portal, all registered users have access to a wealth of information including manuals, technical information, diagrams, online training and more.

### TOOLS FOR ENGINEERS AND CONTRACTORS

#### **INFORMATION & DOWNLOADS**

- Access to literature online
- Access to all manuals
- Download Design Simulator

#### **TECHNICAL INFORMATION**

- Troubleshooting Guides
- Instructional Videos
- Frequently Asked Questions

#### TRAINING

- Designing Airstage Systems
- Reinforce Information covered in on-site training classes
- Learn about new and advanced Airstage features

## PARTS

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## • Parts Identification Diagrams

## AIRSTAGE PROJECT MANAGER (APM) on the Fujitsu Portal (for Reps and Distributors)

- Manage your Fujitsu Airstage projects large and small.
- Create a project and track its progress from the design stage, to quote generation, order processing and deliverytracking to submittal and commissioning.
- Import equipment schedules from the Fujitsu Design Simulator as well as piping and wiring diagrams.
- Request and manage job pricing.

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Who has access to the Portal?

- Engineers
- Contractors
- Fujitsu Distributors/Personnel
- Independent Airstage Sales Reps



• To create a Portal account, go to: http://portal.fujitsugeneral.com and click on "Register Now".

## WHAT'S ON THE PORTAL?

## TOOLS FOR FUJITSU PARTNERS



#### MAINTAIN PROJECTS

- Upload Design Simulator files
- Track project status

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#### SUBMITTALS & CLOSEOUT DOCUMENTATION

- Automatically generate submittals & closeout documents
- Commissioning Report and closeout documents are archived for future reference

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#### WARRANTY & COMMISSIONING

- Process warranty claims
- Submit Commissioning Report
- Print Extended Warranty Certificate



## **Applications**

There are many applications for Airstage VRF systems including such markets as education, healthcare, hospitality, utilities, office buildings, apartment buildings, condominiums, and restaurants. Note: VRF Heat Recovery system provides simultaneous Heating and Cooling.

## MEDICAL AND HEALTHCARE FACILITIES

VRF gives each patient individual control of their room temperature. Central control ensures that air conditioning is only delivered to rooms that are occupied.

### INDIVIDUAL CONTROL

VRF systems give each patient or each room individual control of their room temperature.

### MAINTENANCE

Since each refrigerant circuit has the ability to operate independently, a properly designed VRF system can add a layer of security to a HVAC system. If an individual unit needs to be shut down for repairs, the rest of the system can operate normally.







## CENTRAL CONTROL

Powerful central control ensures that heating and cooling are delivered to rooms that are occupied. This provides enormous savings for facilities with revolving occupancy.

## **CLEAN AIR**

VRF systems can use ductless indoor units reducing the time and expense of maintaining a HVAC system and eliminating the risk of duct-borne molds and bacteria.

## HEALTHIER FACILITY

VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the occupants. VRF provides the most comfortable environment for all occupants.

## **OPTIONAL**

Building Management System (BMS) using BACnet, LonWorks or Modbus.

See Airstage VRF case studies on our site at http://www.fujitsugeneral.com/us/commercial/benefits/ app-and-solutions.html or on our You Tube channel FujitsuGeneral\_USA

## EDUCATIONAL AND RELIGIOUS FACILITIES

In a school, an investment in VRF is an investment in your community. VRF is more efficient than conventional systems, providing financial savings to the school for many years. Also, a quiet VRF system creates a much better learning environment for students.

### HEALTHIER FACILITY

VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the teachers and students.

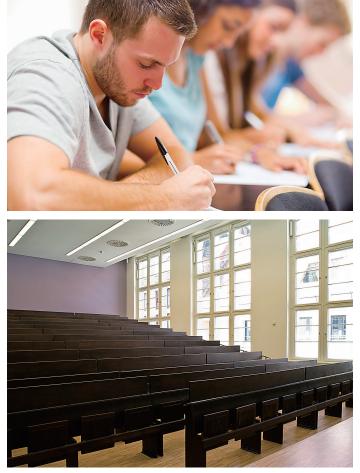
## **CENTRAL CONTROL**

Powerful central control can monitor and control individual schools, or an entire college campus, from a single location.









## ZONING

Save energy by heating and cooling only the classrooms that are occupied. Set temperature can be pre-programmed to meet the energy budget for the school district.



## COMFORT

VRF helps achieve a healthier, quieter, more comfortable and productive learning environment.

## OPTIONAL

Build Management System (BMS) using BACnet, LonWorks or Modbus. Subtenant billing and Energy Charge apportionment.

> See Airstage VRF case studies on our site at http://www.fujitsugeneral.com/us/commercial/benefits/ app-and-solutions.html or on our You Tube channel FujitsuGeneral\_USA



## **OFFICE BUILDINGS AND RETAIL SPACES**

VRF provides a comfortable work environment for all employees. Zoning ensures that energy is only used to cool/heat occupied offices. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.

### **FLEXIBLE**

As tenants and office configurations change, VRF system configurations can also be modified (within original design constraints) to meet the needs of new tenants.

### ZONING

Save energy by only heating and cooling occupied offices. No more hot/cold calls since each zone or tenant has individual control of the set temperature.





### EASE OF INSTALLATION

Can be installed in occupied office spaces with minimal disruption to occupants. Can even be installed without disrupting the existing HVAC system.

## QUIET

Indoor units and outdoor units creates a pleasant work environment and reduces noise complaints.

## CONTROL

Powerful controls options can manage and monitor entire building from a single location.

## COMFORT

VRF provides a comfortable work environment for all employees. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.

## **OPTIONAL**

Building Management System (BMS) using BACnet, LonWorks or Modbus. Subtenant billing and Energy Charge apportionment.

See Airstage VRF case studies on our site at http://www.fujitsugeneral.com/us/commercial/benefits/ app-and-solutions.html or on our You Tube channel FujitsuGeneral\_USA

## MULTI-TENANT DWELLINGS

VRF improves the quality of multi-tenant buildings while reducing tenant complaints. High quality VRF systems let owners save on energy costs and reduced maintenance costs. With VRF, each tenant has individual control over the temperature setting for the comfort of their home.

#### QUALITY

By delivering quiet, efficient heating and cooling, VRF improves the quality of multitenant buildings and reduces tenant complaints.

#### **ENERGY SAVINGS**

Efficient VRF systems reduce the total energy costs for buildings over most other options. High quality systems reduce maintenance and service costs.





## INDIVIDUAL BILLING

Using the Energy Charge Apportionment feature, landlords can easily bill each tenant for the percentage of total energy the individual tenant consumes.

## INDIVIDUAL COMFORT

With VRF, each tenant can have their own controller to set their room temperature for their maximum comfort.

## CONVENIENT CENTRAL CONTROL

Landlord can monitor and control all indoor units from a central location. Landlord can even troubleshoot or solve tenant complaints remotely.

## QUIET

Indoor units ensures a quiet, comfortable living environment for all tenants.

## **OPTIONAL**

Subtenant billing and Energy Charge apportionment.



See Airstage VRF case studies on our site at http://www.fujitsugeneral.com/us/commercial/benefits/ app-and-solutions.html or on our You Tube channel FujitsuGeneral\_USA

## FUJITSU COMMERCIAL FINANCING

For any commercial HVAC installation, you can turn to Fujitsu with confidence for equipment that's not only readily available, but also thoughtfully engineered to install with ease and save energy on utility bills.

THE FUJITSU COMMERCIAL FINANCING PROGRAM IS JUST AS EFFICIENT AND SMART:

## QUICK, EFFICIENT APPROVAL PROCESS

- No cost, recourse or credit check for contractors
- End user credit approvals in 2 6 hours
- Contractor paid within 24 48 hours of install
- Single point of contact, from beginning to end

## SOLUTIONS AVAILABLE FOR MOST PROJECTS

- · Commercial units eligible, as well as controls and installation
- Churches, nonprofits and non-building owners qualify

## TAKE ADVANTAGE OF CONVENIENT QUOTE OPTIONS:

FujitsuGeneralFinancing.com

"Horizon Keystone Calculator" app for Android or iOS

1-800-606-0049

## FOR MORE INFORMATION:

Horizon Keystone Financial 800-606-0049 Fujitsu@horizonkeystone.com



For residential installations, please inquire with your Distributor or Fujitsu Sales Engineer about consumer financing options.



## THINGS TO KNOW BEFORE YOU BUY A FUIITSU SYSTEM

#### COMPLETE SYSTEM WARRANTY

Standard warranties vary depending on model:



All Fujitsu Airstage systems come standard with a 2-Year Compressor/1-Year Parts warranty.



Fujitsu Airstage systems that have been properly commissioned have a warranty of 10-Year Parts/10-Year Compressor. For more details, see Airstage Warranty Statement.

For full details, see Airstage Warranty Statement.

## THINGS TO KNOW BEFORE YOU INSTALL A FUIITSU SYSTEM

#### WARNING

Always use a licensed installer or contractor to install this product. Do not try to install your contractor before choosing a heat pump as your only source of heat. the product yourself. Improper installation can result in water or refrigerant leakage, Systems will maintain temperature up to +/-4 degrees relative to set temperature. To electrical shock, fire or explosion. Use only parts and accessories supplied or specified by increase energy efficiency on multi-type systems, you should turn off the evaporators Fujitsu. Ask a licensed contractor to install parts and accessories. Use of unauthorized when heating or cooling is not needed or improper installation of parts and accessories can result in injury or property damage. Read the installation manual carefully before using this product. The installation DISCLAIMER manual provides important safety instructions and warnings which should be followed Fujitsu's products are subject to continuous improvements. Fujitsu reserves the right to closely. For any questions or concerns, please contact Fujitsu General America, Inc. modify product design, specifications and information in this brochure without notice Proper sizing and installation of equipment is critical to achieve optimal performance. and without incurring any obligations.

## HEAT PUMP DISCLAIMER

In most climates a heat pump will handle all of your heating needs. However, this system sometimes requires some other additional source of heat to satisfy heating requirements in the coldest environments. All of Fujitsu's heat pumps use inverter technology and as such offer a wider operating range and more heat capacity than

## CERTIFICATIONS

## ISO

ISO14001 is the standard defined by the International Organization for Standardization (ISO) related to environmental management systems. Fujitsu General America, Inc. has been acknowledged by an internationally accredited compliance organization as having an appropriate program of environmental protection procedures and activities to meet the requirements of ISO14001. The air conditioners manufactured by Fujitsu have received ISO9001 series certification for • ISO9001 quality assurance.



• ISO14001

AHRI ENERGY GUIDE® PROGRAM (U.S.)

To view AHRI numbers or Energy Guide labels, please go to www.ahridirectory.org.





· Specifications and design are subject to change without notice for future improvement. For further details, please check with an authorized distributor.

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Note: Condensing units come pre-charged from factory. Additional refrigerant may be required, be sure to check installation manual for more details.

a standard heat pump but will not provide adequate heating if improperly sized or operated outside of its operating range. Specifications vary by model; please consult

## ASTM

Our outdoor units shall withstand 1,000 hours of salt spray tested per procedure ASTM B117.

## **ROHS COMPLIANT**

Fujitsu participates in the RoHS Directive, which is the Restriction of Hazardous

Substances in electrical and electronic equipment. It is an EU directive intended to protect the environment by forcing manufacturers to eliminate or severely curtail the use of cadmium, hexavalent chromium, and lead in all products from automobiles to consumer electronics.



## HRAI ENERGUIDE<sup>®</sup> PROGRAM (CANADA)

Canadä
ENERGUIDE
Seasonal Energy Efficiency Ratio (SEER) Ductless heat pump
THIS MODEL
13.0 — Uses least energy → 33.0



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