



# AIRSTAGE



# Creation of Comfort

Fujitsu General have been developing and manufacturing high quality and energy efficient products for more than 35 years. Using the latest Japanese technology and state of the art expertise, our products have been designed in accordance with our policy to "create the most comfortable environment" possible.

Simultaneous Heating and Cooling System for Large Capacities

8HP-48HP

 $34_{\text{model}}$ 

Space saving combination 8HP to 48HP / 21 models

Energy efficiency combination 16HP to 44HP / 13 models



AIRSTAGE VR-II

P34

Heating or Cooling System for Large Capacities

8HP-54HP

39 models

Space saving combination 8HP to 54HP / 24 models

Energy efficiency combination 16HP to 46HP / 15 models



AIRSTAGE V-III

P42

Heating or Cooling System for Large Capacities

8HP-54HP

39 models

Space saving combination 8HP to 54HP / 24 models

Energy efficiency combination 16HP to 46HP / 15 models



AIRSTAGE V-III

TROPICAL series
Production by order

Heating or Cooling System for Large Capacities

8HP-48HP

33 models

Space saving combination 8HP to 48HP / 21 models

Energy efficiency combinatio 16HP to 44HP / 12 models



AIRSTAGE V-II

P54

Heat Pump Design for Small Capacities

4HP, 5HP, 6HP



AIRSTAGE J- III

P60

Heat Pump Design for Small Capacities

4HP, 5HP, 6HP

RELIABILITY

INSTALLATION

The AIRSTAGE™ series provides high energy savings, comfort, and reliability to the end user. The design, installation, and servicing were developed based on the concepts of high flexibility and simplicity. We offer an abundant VRF system lineup to match regional and customer needs by providing the best combination from low to high capacities and from giving priority to conserving installation space to giving priority to

& MAINTENANCE

high efficiency.

**EFFICIENCY** 

DESIGN

FLEXIBILITY

COMFORT & CONVENIENCE



AIRSTAGE J-[[S

P64

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# Our History

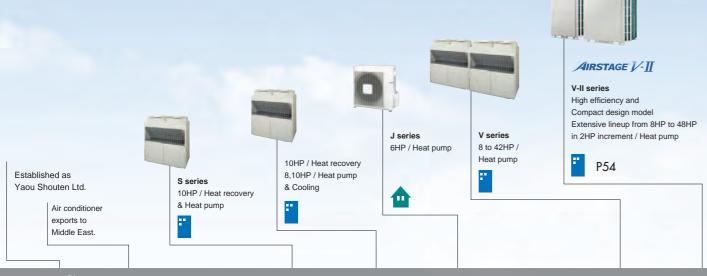
Overseas Air Conditioning Business since 1971 VRF Business since 2001

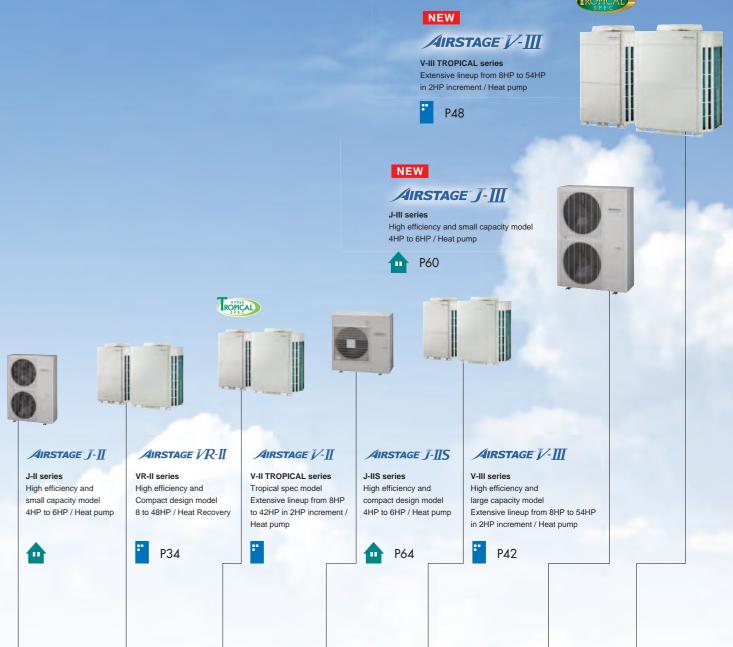
FUJITSU GENERAL's VRF AIRSTAGE™ Series has been developed based on our long-term air-conditioning technology know-how and was first provided 14 years ago. We have offered a series of products from large homes to large-scale buildings to meet the various market needs.

For Commercial Use



For Residential & Light Commercial Use





AIRSTAGE™ History

2009 2007 2001 2003 2004 2006 2016

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.

Fujitsu introduced inverter technology which used R410A refrigerant.



Restriction of Hazardous Substances (ROHS) is an EU directive on the restriction of the use of certain hazardous substances in all consumer electrical and



**DC Inverter Compressors** Use of 100% inverter driven DC compressors



# High Quality Development & Pr oduction Facilities



# AIRSTAGE New Products

### **New Small VRF Series**

- 4/5/6 HP class Single phase / 3 phase 6 models
- High efficiency





### **New Tropical VRF Series (Production by order)**

- 2HP to 54HP 39 models
- Tropical VRF is designed for tropical weather.
- Possibe to operate cooling up to 52°C ambient temperature.
- Heavy anti-corrosion treatment design





### **Mini Duct**

- 7 to 24 class 6 models
- Compact design of Depth 450mm and Height 198mm
- Installation is possible even in narrow ceiling space
- In spite of compact model, V-shaped heat exchanger, large fan casing, and optimized airflow path achieve significant low noise.

### Models: ARXK07/09/12/14/18/24GCLH (With drain pump) NEW



ARXK07/09/12/14



ARXK24

### **High Static Pressure Duct**

- 96 class high energy efficiency
- Wide static pressure range of 0 to 300Pa
- 5 static pressures selection

### Model: ARXC96GATH NEW

These indoor units allow for high airflow quantities



### Controllers

- Supported languages are increased for Wired Remote Controller (Touch Panel)
- New function (option) is added for Touch Panel Controller

### Wired Remote Controller (Touch Panel)

UTY-RNRYZ1 NEW

Corresponds to 12 different languages



### **Touch Panel Controller**

UTY-DTGYZ1 NEW

Electricity charge apportionment function added (option)



### Convertors

- Network Convertor can be connected to single split 2 types of DC power supply type and AC power supply type are available
- Modbus convertor can be connected to Modbus network

### Network Convertor:

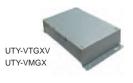
UTY-VTGX (DC power supply type) NEW UTY-VTGXV (AC power supply type) NEW

Network Convertors offer total solutions for multiple air-conditioning systems control.



MODBUS® Convertor
UTY-VMGX NEW

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



# AIRSTAGE Line-up

Fujitsu General provides multi air conditioning systems for buildings AIRSTAGE Series matched to the size and application of the property.



Heat Recovery type for simultaneous heating and cooling operation

- Systems compatible with individual operation mode control, as well as large offices, hotels, and large composite facilities
- Extensive lineup from 8HP to 48HP increment connectable indoor unit capacity ratio up to 150%.
- Space saving and Energy efficiecy combinations 34models lineup.

# AIRSTAGE V-III 39 models

Heat Pump type for heating or cooling operation

- Systems for large offices, hotels, and large composite facilities
- Extensive lineup from 8HP to 54HP increment connectable indoor unit capacity ratio up to 150%
- Space saving and Energy efficiecy combinations 39 models lineup

# AIRSTAGE V-III 39 models

Heat Pump type for heating or cooling operation

- Systems for large offices, hotels, and large composite facilities
- Extensive lineup from 8HP to 54HP increment connectable indoor unit capacity ratio up to 150%
- Space saving and Energy efficiecy combinations 39

  models lineup.

# AIRSTAGE V-II 33 models

Heat Pump type for heating or cooling operation

- Systems for large offices, hotels, and large composite facilities
- Extensive lineup from 8HP to 48HP increment connectable indoor unit capacity ratio up to 150%
- Space saving and Energy efficiecy combinations 33 models lineup

# AIRSTAGE J-III 6HP. 5HP. 6HP

Heat Pump type for

heating or cooling operation

• Energy efficiency 3models lineup

- Systems for large homes to medium sized offices, shops
- Small capacity range from 4HP to 6HP connectable indoor unit capacity ratio up to 130%.

AIRSTAGE J-[[S

4HP, 5HP, 6 3 model

Heat Pump type for heating or cooling operation

- Systems for large homes to medium sized offices,
- shops
- Small capacity range from 4HP to 6HP connectable indoor unit capacity ratio up to 130%
- Space saving design 3 models lineup

### Outdoor units range

HP		4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
kW class		12.1	14.0	15.5	22.4	28.0	33.5	40.0	45.0	50.4	55.9	61.5	67.0	73.5	78.5	85.0	90.0	95.0	100.5	107.0	112.0	118.5	123.5	130.0	135.0	139.0	143.0	147.0
AIRSTAGE VR-II	Space saving				AJYA72GALH	AJYA90GALH	AJY108GALH	AJY126GALF	H AJY144GALH	AJY162GALH	AJY180GALH	H AJY198GALI	H AJY216GALH	AJY234GALI	H AJY252GALH			AJY306GALH					AJY396GALH	AJY414GALH	AJY432GALH			
Heat Recovery	High Efficiency								AJY144GALHH			AJY198GALH	HH AJY216GALHH	AJY234GALF				H AJY306GALHH					AJY396GALHH					
AIRSTAGE V-III Heat Pump	Space saving				AJY072LALBH	AJY090LALBH	AJY108LALBH	I AJY126LALBI	H AJY144LALBH	AJY162LALBH	AJY180LALB	H AJY198LALB	H AJY216LALBH	AJY234LALB	H AJY252LALBI			AJY306LALBH				I AJY378LALBH	AJY396LALBH	AJY414LALBH	AJY432LALBH	AJY450LALBH	AJY468LALBH	AJY486LALBH
neat Pullip	High Efficiency								AJY144LALBHH	AJY162LALBHH	AJY180LALBH	н	AJY216LALBHH	AJY234LALBH	H AJY252LALBHF	AJY270LALBHH	AJY288LALBHH	I AJY306LALBHH	AJY324LALBHH	AJY342LALBHH	AJY360LALBHH	AJY378LALBHH	AJY396LALBHH	AJY414LALBHH				
NEW  AIRSTAGE V-III  TROPICAL series	Space saving				AJY072LNLBH	AJY090LNLBH	AJY108LNLB	AJY126LNLB	H AJY144LNLBH	AJY162LNLBH	AJY180LNLB	H AJY198LNLB	BH AJY216LNLBH	AJY234LNLB	H AJY252LNLBH	I AJY270LNLBH	AJY288LNLBH	AJY306LNLBH	AJY324LNLBH	AJY342LNLBH	AJY360LNLBH	I AJY378LNLBH	AJY396LNLBH	AJY414LNLBH	AJY432LNLBH	AJY450LNLBH	AJY468LNLBH	AJY486LNLBH
Heat Pump  Production by order	High Efficiency								AJY144LNLBHH	AJY162LNLBHH	AJY180LNLBH	н	AJY216LNLBHH	AJY234LNLBH	H AJY252LNLBH	AJY270LNLBHH	H AJY288LNLBHH	H AJY306LNLBHH	AJY324LNLBHH	AJY342LNLBHH	AJY360LNLBHH	I AJY378LNLBHH	AJY396LNLBHH	AJY414LNLBHF				
AIRSTAGE V-II	Space saving				AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALI	AJY144LALH	AJY162LALH	AJY180LALH	d AJY198LALI	H AJY216LALH	AJY234LALF	H AJY252LALH	AJY270LALH	AJY288LALH	AJY306LALH	AJY324LALH	AJY342LALH	AJY360LALH	AJY378LALH	AJY396LALH	AJY414LALH	AJY432LALH			
Heat Pump	High Efficiency								AJY144LALHH			AJY198LALH	IH AJY216LALHH	AJY234LALH	H AJY252LALHI	AJY270LALHH	AJY288LALHH	AJY306LALHH	AJY324LALHH		AJY360LALHH	I AJY378LALHH	AJY396LALHH					
NEW AIRSTAGE J-III	High Efficiency (Single phase)	AJY040LBLAH	AJY045LBLAH AJY0	/054LBLAH																								
Heat Pump	High Efficiency (3 phase)	AJY040LELAH	AJY045LELAH AJY0	/050LELAH																								
AIRSTAGE J-IIS Heat Pump	Space saving	AJY040LCLAH	AJY045LCLAH AJY0	/054LCLAH																								

### Indoor units range

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs. 12 types, 66 models, Capacity range from 1.1kW to 28.0kW

Model code		4	7	9	12	14	18	24	30	34	36	45	54	60	72	90	96
Capacity range (k\	W)	1.1	2.2	2.8	3.6	4.5	5.6	7.1	9.0	10.0	11.2	12.5	14.0	18.0	22.4	25.0	28.0
	Compact Cassette	AUXB04GALH	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH									
Cassette	Cassette (Slim type)						AUXD18GALH	AUXD24GALH									
	Cassette (Large type)																
	Mini Duct NEW (With drain pump)			ADVICABOON			AUXA18GALH		AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH				
	Slim Duct (With drain pump)	ARXD04GALH	ARXK07GCLH  ARXD07GALH	ARXK09GCLH  ARXD09GALH		ARXK14GCLH  ARXD14GALH	ARXK18GCLH  ARXD18GALH	ARXK24GCLH  ARXD24GALH									
Duct	Medium Static Pressure Duct							ARXA24GBLH	ARXA30GBLH		ARXA36GBLH	ARXA45GBLH					
	High Static Pressure Duct										ARXC36GBTH			ARXC60GATH*1	ARXC72GBTH*1	ARXC90GBTH*1	ARXC96GATH*1
	Large Airflow Duct						ARXN18GATH*2	ARXN24GATH*2	ARXN30GATH*2	ARXN34GATH*2							
	Floor (Same as Ceiling models)				ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH									
Floor	Slim Concealed Floor (Same as Slim Duct models)	ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH		ARXD24GALH									
Ceiling	Ceiling	7.10.00107.2.1	7.11.0.20.0.12.1	71107.00007.211					ARVASOCATU		ADVASCATU	ADVAMECATU	ADVAEACATH				
	Wall Mounted	100000000	A0VA070 A0U	ACVARGACIA		ABYA14GATH		ABYA24GATH			ADIAGONIA	ABYA45GATH	ADIAJ4GAIR				
Wall Mounted	Wall Mounted (EEV external)			ASYA09GACH  ASYE09GACH			ASYA18GACH  With this model, connection of EV kit is necessary.	ASYA24GACH	ASYA30GACH								

### 

## Energy Recovery Ventilator range

Airflow rate (m <sup>3</sup> /h)	250	350	500	800	1000
Model code	025	035	050	080	100
Energy Recovery Ventilator	501	0		000	00
		The second secon			

## Outdoor Air Unit range

Airflow rate (m <sup>3</sup> /h)	1080	1680	2100
Model code	054	072	096
Outdoor Air Unit	-		7
	ARXH054GTAH	ARXH072GTAH	ARXH096GTAH

# AIRSTAGE Support

Fujitsu General provides a variety of product and technology information to engineers and consultants and also conducts new product research and design support activities.

We provide a wide range of support to maintain high quality from design to installation.



### **Product information**

New product information is provided in the form of documents and movies for each model to match the release timing. These can be downloaded from a special website, so please contact our dealer nearest you.

### **Features**

- Product News
- Brochures & All Manuals
- Feature Promotion Movie

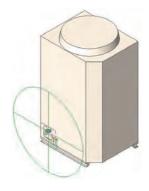


### **Technical Information**

We provide information helpful for design. We also provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make it easy to select models and create estimates.

### Features

- Design & Technical Manual
- Model Selection & Estimation
- Certificate Data
- 2D/3D CAD Data





### **Training**

Fujitsu General has built the training facilities in many locations around the world that regularly engage in specialized product, technology, and servicing training. These research facilities also support the development of people with high technical capability.

### Features

- Designing Airstage Systems
- Control System on-site training



Training for installer



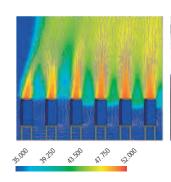
Presentation & training for dealers 2

### **Technical Support**

Technological support is provided at every stage from design to installation to maintain the necessary reliability. We cooperate with you to build a better quality air conditioning environment.

### **Features**

- CFD Simulation
- Guide line
- Commissioning Support





# Design Support Tool

# **Design Simulator**

Put the charts and pens away and design your projects on your computer with ease using the Design Simulator. Everything from selecting indoor and outdoor units, allocating controls and optional parts to designing the piping and wiring systems is made easier using the program's built-in features. Once your project is designed take advantage of the Export functions to easily get materials lists, product specifications, refrigerant calculations and more - it'll even export to Word or Excel formats, and group the relevant CAD data for your project.

### Automatically create model selection information

- Each unit can be automatically set by entering the required performance, type, and temperature conditions for each indoor unit and then dragging and dropping into the outdoor unit.
- Piping and wiring diagrams can be created automatically and it is easy to set branches, grouping, and options.
- The additional refrigerant charging amount is automatically calculated when the pipe length is entered.
- It is also easy to set the remote controller groups, central controller and converters.
- The equipment list including the equipment information is created

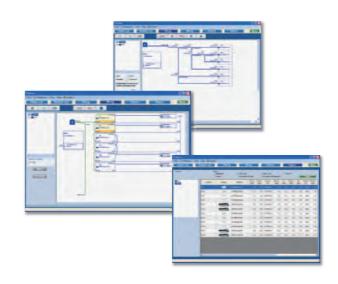
### Output the format that matches the application

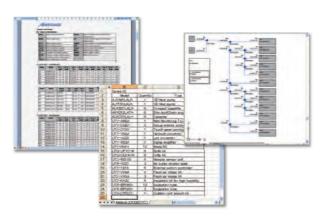
The information specific to your project can be exported in a number of industry standard file formats.

- Word format (rtf)
- Excel format (csv)
- Auto CAD format (DXF)
- 2D Data (DXF)
- 3D Data (RFA)

### **Update your Design Simulator**

Database can be easily updated online using AutoUpdate function through FTP.







Information on the latest istory update is demanded Information on the latest



# Building Information Modeling (BIM)

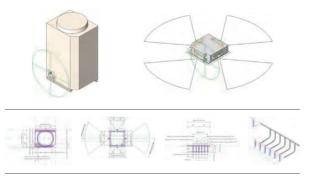
FUJITSU GENENRAL provides the Building Information Modeling (BIM) object models and contents for our VRF system and some products to the architect, designer and contractor using Autodesk® Revit® technology from our Website and Autodesk® Seek Website, etc.



### 3D and 2D product data

We provide 3D data that closely resemble the actual product appearance. 2D CAD design operations are supported and 2D display is also provided.

The data can also be output in other formats, such as DXF and DWG, which are used by other design CAD.



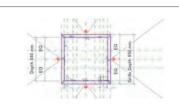
### Installation limitation

The equipment installation limitation range is shown. Installation requirements, such as distance from the wall, is automatically displayed to make it easy to produce highly reliable layout designs.



### **Installation information**

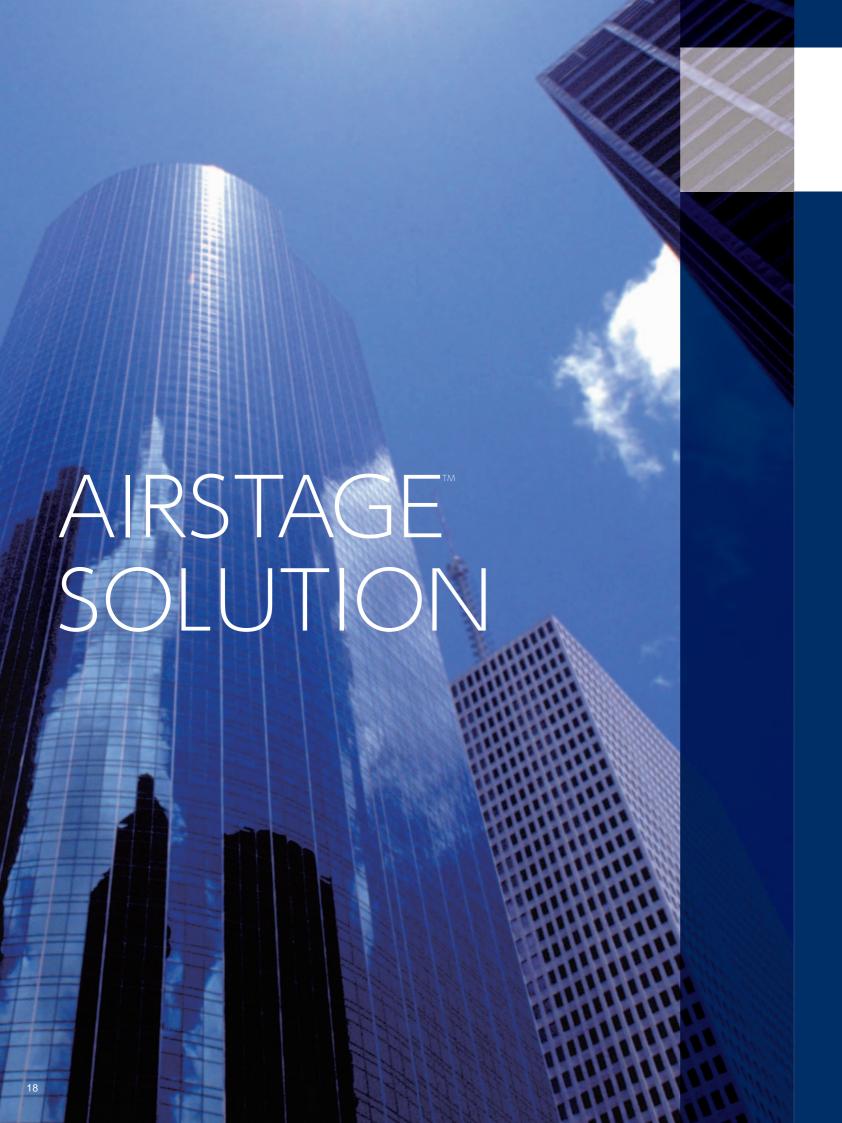
Other information, such as symbols showing the airflow direction that are required for installation drawings, is built in and can be automatically reflected in 2D drawings. Installation drawings can be created easily.



### **Product specifications & Link information**

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate.

These data can be procured from the Fujitsu General Website, Design Simulator, and Autodesk® Seek Website.



AIRSTAGE™ VRF SYSTEMS CAN BE DESIGNED TO CREATE AN AIR CONDITIONING SOLUTION TO SUIT MOST BUILDINGS REQUIREMENTS.

Airstage VRF Systems can be designed to effectively provide an air conditioning solution from a large domestic residence through to a large scale commercial building.

HIGH ENERGY EFFICIENCY

MORE COMFORT

**HIGH RELIABILITY** 

**DESIGN FLEXIBILITY** 

**EASY INSTALLATION** 

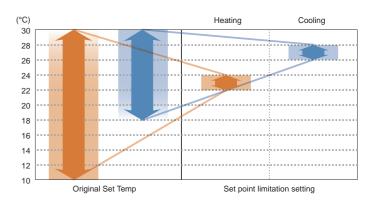
**EASY SERVICE & MAINTENANCE** 



# Operation Performance is Effectively Controlled.

# Room temperature set point limitation

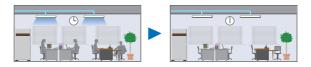
The minimum and maximum temperature ranges can be limited, which provide further energy saving while maintaining the comfort of the occupants.

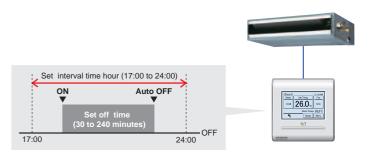


### **Auto-off timer**

New wired remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents waste of energy.

Furthermore a new wired remote controller can set up the interval of time in case operation stops.

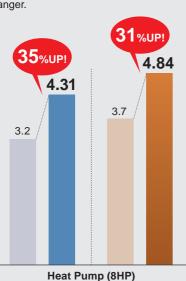


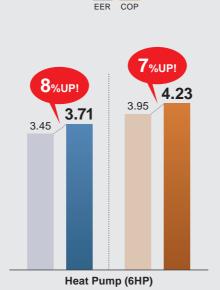


### **Highly Energy Efficiency**

Efficiency is improved significantly by using DC twin rotary compressor, inverter technology, and large heat exchanger.





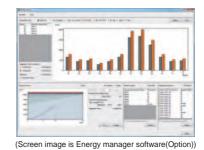


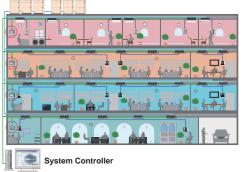
Previous model

### **Energy saving management**

A variety energy saving operations can be set and managed depending on the season, weather, and time period.

Excellent energy saving operation is performed by using System Controller.

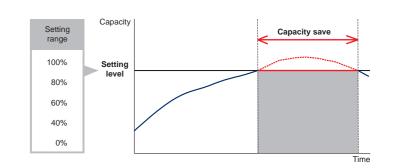




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### Capacity save operation

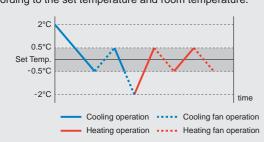
Operation capacity can be set in 5 steps for rated capability. The power consumption at peak is cut down and the maximum load is suppressed.



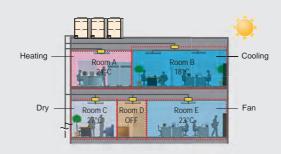


### **Auto changeover function**

At Auto setting, the cooling/heating mode is automatically switched according to the set temperature and room temperature.



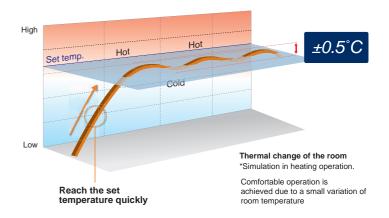
Auto changeover setting allows for the product to easily switch between cooling and heating modes regardless of the operation mode of other indoor units. This can be done via specific indoor unit with wired remote controller. This ensures comfortable operation all year round. Automatic cooling / heating operation for each room is possible





### Precision refrigerant flow control

Precise and smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows high precision comfortable temperature control of ±0.5°C.



### Low sound level design

when low mode heating operation.

Small capacity indoor units respond for the demands of several applications.

These models will be able to offer greater audibility comfort by operating at super low sound levels. Especially, Wall mounted (EEV external) type is 19dB(A)

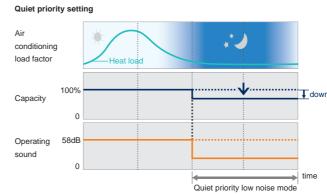


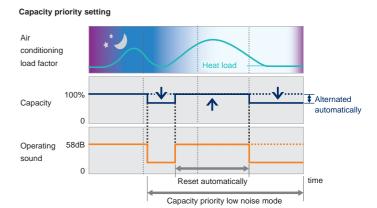
Small capacity indoor unit

### **Quiet operation**

### Low noise mode

Two low noise modes can be selected automatically by quiet priority setting and capacity priority setting depending on the indoor environment and outside temperature load. This feature can be controlled via outdoor unit external input and/or system controller.

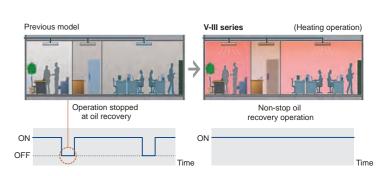




### Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.

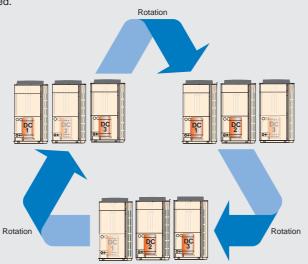
\*: AIRSTAGE VR-II series is not available.





# Outdoor unit rotational operation

The compressor starting order is rotated so that the running time is shared.

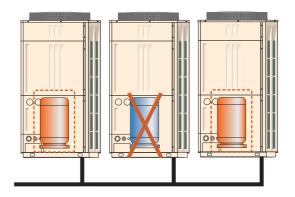


Note: Rotational operation is alternated by the start / stop timing of the compressor.

### **Backup operation**

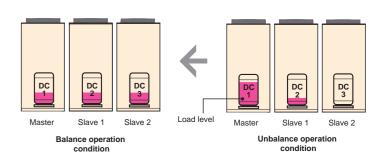
If one compressor fails, backup operation will be performed by the remaining compressors\*.

 $\ensuremath{^{\star}}\xspace$  Note: Backup operation may not be possible depending on the trouble state.



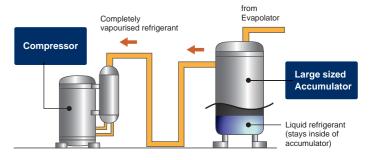
### Advanced refrigerant control

Innovative compressor control logic has been introduced in order to balance the refrigerant mass flow rate of each outdoor unit by controlling the inverter speed.



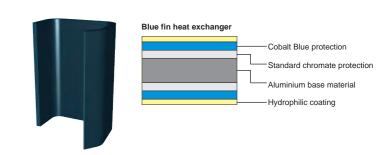
### Liquid flow back protection

By adopting a large sized accumulator, the not completely vapourised refrigerant stays inside of the accumulator to ensure no liquid refrigerant is being fed into the compressor.



### Adoption of blue fin heat exchanger

Corrosion resistant of the heat exchanger has been improved by the introduction of blue fin treatment to the outdoor unit's heat exchanger.



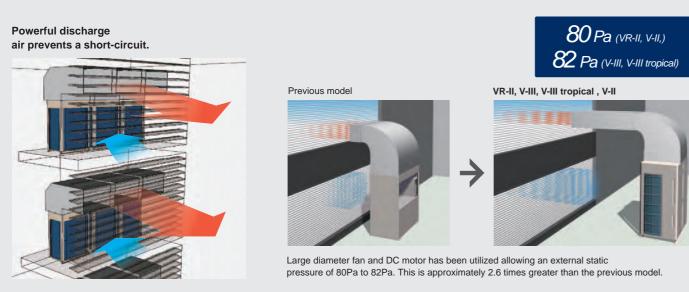
25

# **DESIGN FLEXIBILITY**

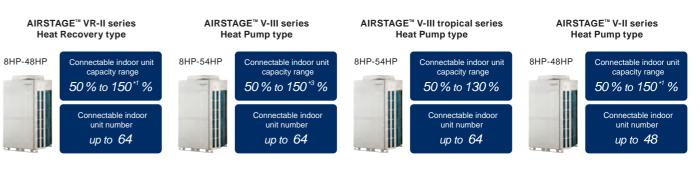


### **High static pressure**

The outdoor unit can have a condenser hood easily connected with a static pressure of 80Pa to 82Pa. This allows outdoor units to be installed within plant rooms in high rise buildings.



### High capacity connection



- \*1. Conditions of maximum connectable indoor unit capacity ratio is as the chart below.
  \*2. Only 4HP is 46%
- \*3. Max. capacities in the combinations including the 18HP outdoor unit fall below 150%

Series	Maximum connectable i	ndoor unit capacity ratio
Octics	Without 1.1kW models	With 1.1kW models*4
V-II/VR-II	150%	130%
V-III tropical	130%	_
J-III	150%	150%
J-IIS	130%	117%

\*4. In the case of connectable indoor units, 1.1 kW models and Cassette and / or Duct type of 9.0 kW class or more, maximum connectable indoor unit capacity ratio is 110%.

### Wide operating range

AIRSTAGE™ J-III series

Connectable indoor uni

50 % to 150\*1 %

Connectable indoor

up to 13

4HP-6HP

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

AIRSTAGE™ J-IIS series

**Heat Pump type** 

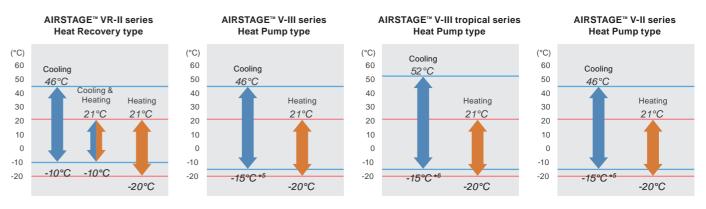
Connectable indoor unit capacity range

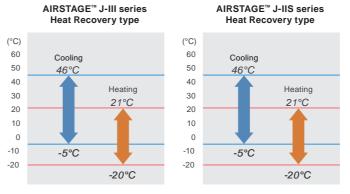
50\*2 % to 130\*1 %

Connectable indoor

up to 8

4HP-6HP



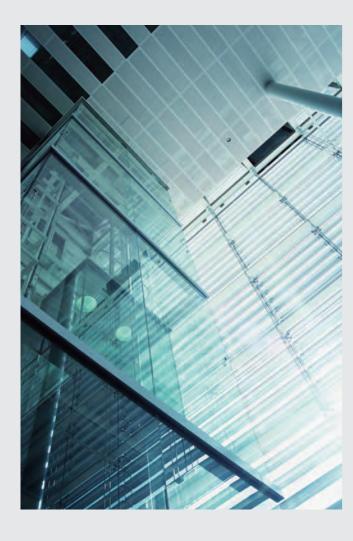


\*5. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 46°C in cooling.

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\*6. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 52°C in cooling.

# **EASY INSTALLATION**



### **Easily transported**

Easily craned using lifting belt hooks

Design of outdoor unit allows for lifting straps to be used



### Transporting by forklift

Transport with forklift is possible.



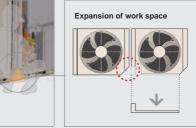
Can be transported in a small elevator



### Easy access

By adopting a L-Shape front panel that can be removed, the work space for installation and service has been significantly expanded by this new design. For multiple installations, work is performed easily and efficiently even in a narrow space.



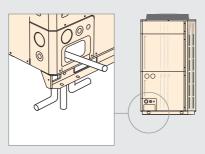


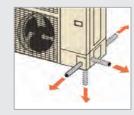


Reduced installation intervals by front access

### Flexible piping connection

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

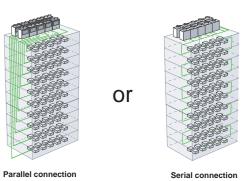




Flexible installation by 4 way pipe direction

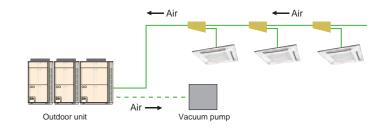
### Simple wiring work

Installation of the wiring systems is made easier as the communication wiring can be installed continuously between the indoor, outdoor and RB units.



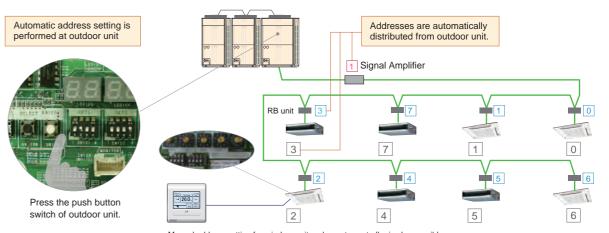
### Easy evacuation - using vacuum mode function

The vacuum mode function enables all expansion valves of indoor units to be fully opened, making it easy to evacuate all the air inside pipe lines and indoor units.



### **Automatic address setting**

The address of the indoor unit, RB unit and signal amplifier can be set through the automatic function setting on the outdoor unit PCB.



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

### **Easy commissioning by Service Tool**

Service tools can be used to check the refrigerant temperature, pressure, and the operating status of the electronic expansion valve, making it easy to determine whether the units are connected properly.



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# **EASY SERVICE & MAINTENANCE**



### **Design for Easy Maintenance**

7 segment LED is used to make it easy to check the details about the function setting status, refrigerant temperature, pressure, compressor operation time, and other factors for each model to make it easy to perform self-diagnostics.



Easy to read 7-segment LED: Confirm detailed operational and error status without using any specific equipment.



7-segment LED

- Operation mode status
- Discharge temperature/Pressure status
- Compressor operation indication
- Address/type/number of outdoor unit

### Mobile trouble shooting tool for iPhone

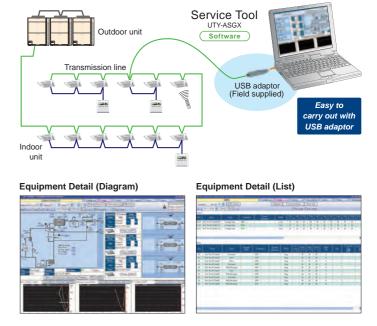
We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products.

This application is a troubleshooting tool for FUJITSU GENERAL air conditioner (RAC / PAC, VRF) It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.



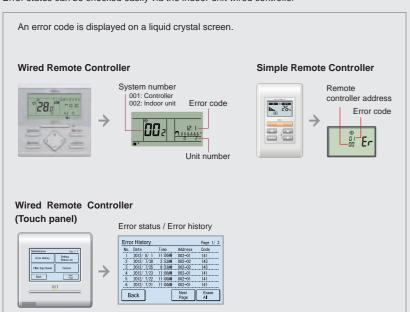
### **Error diagnosis by Service Tool**

Necessary maintenance can be carried out after analysing the operation data. The service tool can be connected anywhere in the VRF network.



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### Error status can be checked easily via the indoor unit wired controller

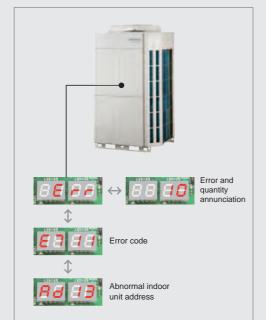


### Error status can be cheked easily by outdoor unit display

Movable PCB panel

Easier for maintenance

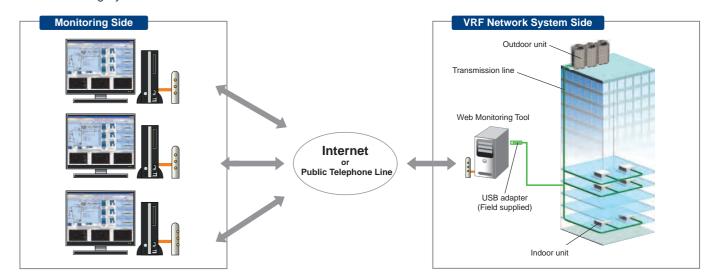
work behind the PCB



### **Remote monitoring**

The Web Monitoring system allows you to view system operation anytime over the internet, ensuring issue free operation.

Web Monitoring System





AIRSTA

SERIES

The AIRSTAGE 6 Series has a total of 154 models to meet the environmental and building size requirements.



structural designs and advanced inverter technology to provide higher efficiency.

High durability technology has also been incorporated to

High durability technology has also been incorporated to ensure long-term use.

The AIRSTAGE series outdoor units were developed with

HEAT RECOVERY TYPE AIRSTAGE VR-II

**HEAT PUMP TYPE AIRSTAGE V-III** 

HEAT PUMP TYPE AIRSTAGE V-III TROPICAL Series

**HEAT PUMP TYPE AIRSTAGE V-II** 

HEAT PUMP TYPE AIRSTAGE J-III

**HEAT PUMP TYPE AIRSTAGE J-IIS** 



# HEAT RECOVERY TYPE

AIRSTAGE VR-II series

Smart and cutting edge design
Extensive lineup from 8HP to 48HP in 2HP increment
Connectable indoor unit capacity ratio up to 150%

### System Outline



## 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.



### Annual cooling operation

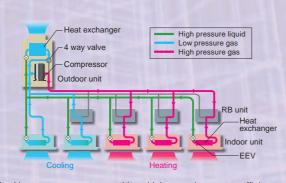
Use annual cooling operation for the rooms and other spaces that require constant temperature control throughout the year.



### Handles changes in the temperature difference

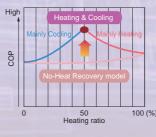
The operation mode can be freely changed when there are large temperature differences during the day, such as between seasons.





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 saving of the operating systems has been approved as heating and cooling modes can be operated at the same time on the same air conditioning piping system.

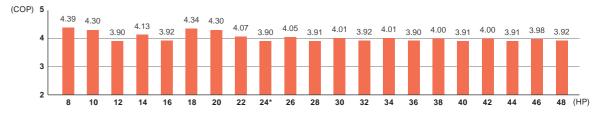


### **Features**

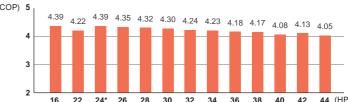
### Efficiency in actual operation

Top class high COP is achieved for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and our own technologies.





Energy efficiency combination





### Energy saving technology that boosted 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 construction.



### Sine-wave DC inverter control

High efficiency is realized by adoption of reduced switching loss IPM.



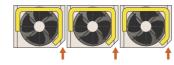
### High efficient compressor Large capacity DC inverter compressor

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.





### Front intake port

(corner cut air inhaling structure)

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



### All inverter compressor

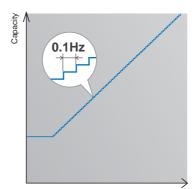
### Large capacity DC inverter compressor

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



# High efficient compressor speed control

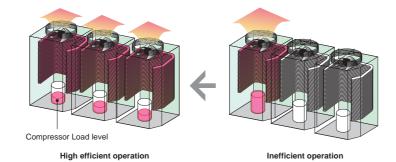
Comfortable space with small room temperature changes and little energy loss is created by 0.1Hz steps compressor speed control.



Inverter frequency

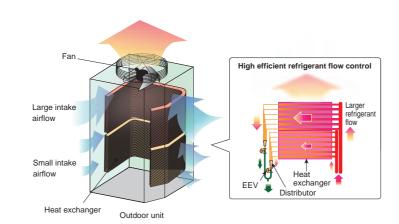
### Multiple outdoor operation control

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.



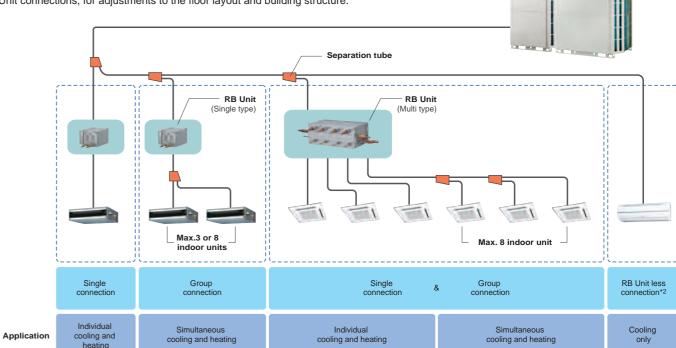
### Heat exchanger refrigerant control

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.



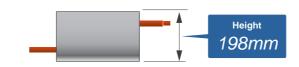
### Flexible piping connection

A more flexible refrigerant piping work is possible by the use of various piping and RB Unit connections, for adjustments to the floor layout and building structure.

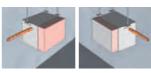


- The RB unit can be freely positioned between the first branch and the indoor unit.
- $\bullet$  The maximum height difference between RB units is 15 m.
- \*2. RB Unit is not necessary for cooling only use.

### Flexible installation of RB unit



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

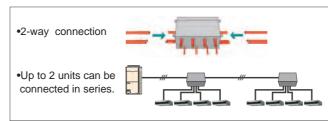


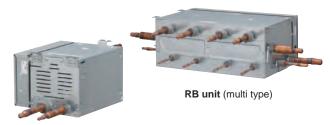
Installation possible from either side for freedom of the control box



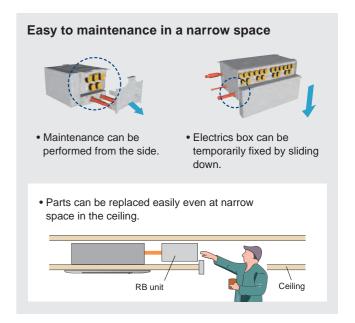
Installation possible on the upper-side for use in narrow space

- Small design saves space
- A drain pipe is not required
- Simple installation series connection design



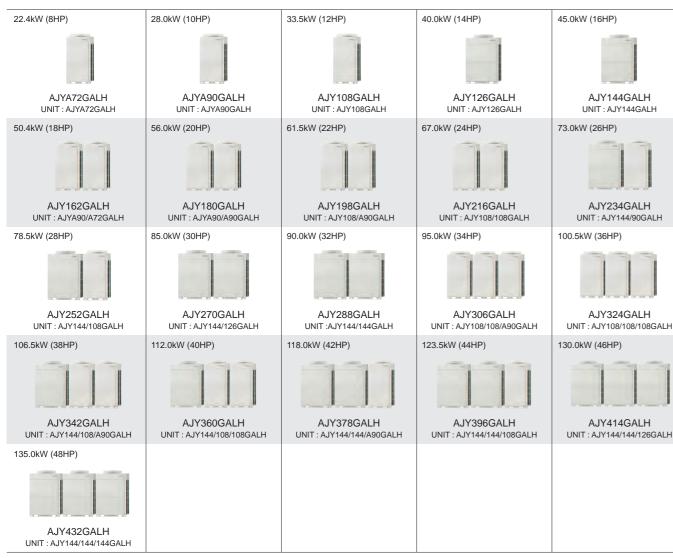


RB unit (single type)



• Combinations other than the followings are not recommended.

### **Space saving combination**

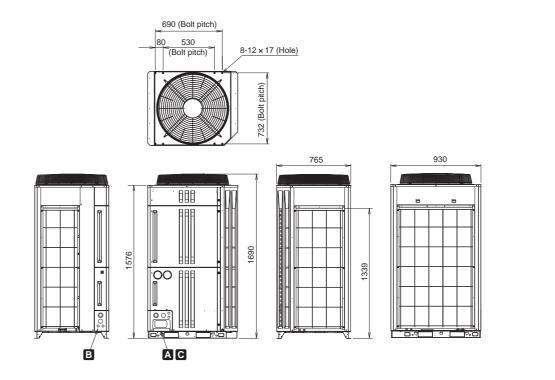


### **Energy efficiency combination**



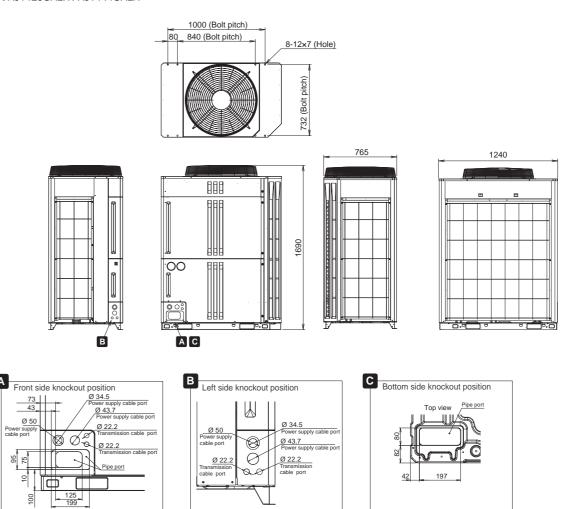
### **Dimensions**

8,10,12HP: AJYA72GALH / AJYA90GALH / AJY108GALH



(Unit:mm)

**14,16HP**: AJY126GALH / AJY144GALH (Unit: m



### **Space Saving Combination**

					1	1		1															
Rating Capacity ran	ge	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Model name			AJYA72GALI	AJYA90GALI	AJY108GALH	AJY126GALH	AJY144GALH	AJY162GALH	AJY180GALH	AJY198GALH	AJY216GALH	AJY234GALH	AJY252GALH	AJY270GALH	AJY288GALH	AJY306GALH	AJY324GALH	AJY342GALH	AJY360GALH	AJY378GALH	AJY396GALH	AJY414GALH	AJY432GALH
Unit 1 Unit 2 Unit 3			AJYA72GALI	AJYA90GALF	AJY108GALH	AJY126GALH	AJY144GALH		AJYA90GALH AJYA90GALH		AJY108GALH AJY108GALH	AJY144GALH AJYA90GALH		AJY144GALH AJY126GALH		AJY108GALH AJY108GALH AJYA90GALH	AJY108GALH AJY108GALH AJY108GALH		AJY108GALH	AJY144GALH	AJY144GALH AJY144GALH AJY108GALH	AJY144GALH	AJY144GALH AJY144GALH AJY144GALH
Maximum Connecta	able Indoor	Unit*1	15	16	17	21	24	32	30	32	35	39	42	45	48	50	53	57	60	63	64	64	64
Indoor unit connectable	capacity	Cooling kV	V 11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-84.0	30.8-92.2	33.5-100.5	36.5-109.5	39.3-117.7	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.7	53.3-159.7	56.0-168.0	59.0-177.0	61.8-185.2	65.0-195.0	67.5-202.5
Power source						3-pha	ase 4 wire, 400 \	/, 50Hz									3-phase 4 wire	e, 400 V, 50Hz					
Capacity		Cooling	22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.0	73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.0	123.5	130.0	135.0
		Heating	25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	75.0	81.5	87.5	95.0	100.0	106.5	112.5	119.0	125.0	131.5	137.5	145.0	150.0
Input power		Cooling	5.45	7.11	9.75	11.34	13.61	12.56	14.22	16.86	19.50	20.72	23.36	24.95	27.22	26.61	29.25	30.47	33.11	34.33	36.97	38.56	40.83
		Heating	5.70	7.33	9.62	10.90	12.77	13.03	14.66	16.95	19.24	20.10	22.39	23.67	25.54	26.57	28.86	29.72	32.01	32.87	35.16	36.44	38.31
EER		Cooling W/	W 4.11	3.94	3.44	3.53	3.31	4.01	3.94	3.65	3.44	3.52	3.36	3.41	3.31	3.57	3.44	3.50	3.38	3.44	3.34	3.37	3.31
COP		Heating	4.39	4.30	3.90	4.13	3.92	4.34	4.30	4.07	3.90	4.05	3.91	4.01	3.92	4.01	3.90	4.00	3.91	4.00	3.91	3.98	3.92
Air flow rate		High m <sup>3</sup> /	,	11,100	11,100	13,000	13,000	11,100×2	11,100×2	11,100×2	11,100×2	13,000+11,100	13,000+11,100	13,000×2	13,000×2	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3
Sound pressure lev		Cooling de	\ <del></del>	58 / 79	59 / 80	60 / 81	61 / 82	60 / 81	61 / 82	62 / 83	62 / 83	63 / 84	63 / 84	64 / 84.5	64 / 85	63 / 85	64 / 85	64 / 85	65 / 85.5	65 / 86	65 / 86	65 / 86	66 / 87
Power level		ricating (	, 30 / 00	59 / 81	61 / 83	61 / 83	61 / 83 80	62 / 84	62 / 84	63 / 85	64 / 86	63 / 85 80	64 / 86	64 / 86	64 / 86	65 / 87.2 80	65 / 87	65 / 87	66 / 87.7	65 / 87	66 / 88 80	66 / 88 80	66 / 88
Maximum external station		Pa kW	7.5	7.5	7.5	80 11.0	11.0	80 7.5×2	80 7.5×2	80 7.5×2	80 7.5×2	11.0+7.5	80 11.0+7.5	80 11.0×2	80 11.0×2	7.5x3	80 7.5×3	80 11.0+7.5×2	80 11.0+7.5×2	80 11.0×2+7.5	11.0×2+7.5	11.0×3	80 11.0×3
Compressor motor Heat exchanger fin	υπιρατ	KVV	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Tieat exchanger hin		Height mr		1.690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1.690	1,690	1.690	1,690	1,690	1,690	1,690	1.690	1,690	1,690	1,690	1,690
Dimensions		Width mr		930	930	1,240	1,240	930×2	930×2	930×2	930×2	1,240+930	1.240+930	1,240×2	1,240×2	930×3	930×3	1.240+930×2	1.240+930×2	1,240×2+930	1.240×2+930	1.240×3	1,240×3
Billionolono	-	Depth mr		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		ko		262	262	286	286	262×2	262×2	262×2	262×2	286+262	286+262	286×2	286×2	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×3	286×3
Defricement	Type (Global	Warming Potentia	l) R410A (2,088	R410A (2,088	) R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Refrigerant	Charge	kç	11.8	11.8	11.8	11.8	11.8	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
0		Liquid	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe diameter		Discharge Gas mr	n 15.88	19.05	19.05	22.22	22.22	22.22	22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92
Pipe diameter		Suction Gas	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation		Cooling	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46
Operation range	L	Heating °C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
		Cooling/Heating	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21

### **Energy Efficiency Combination**

Rating Capacity ra	nge <b>HP</b>	16	22	24	26	28	30	32	34	36	38	40	42	44
						11			11					
Model name		AJY144GALHH	AJY198GALHH	AJY216GALHH	AJY234GALHH	AJY252GALHH	AJY270GALHH	AJY288GALHH	AJY306GALHH	AJY324GALHH	AJY342GALHH	AJY360GALHH	AJY378GALHH	AJY396GALHH
Unit 1 Unit 2 Unit 3		AJYA72GALH AJYA72GALH	AJY126GALH AJYA72GALH	AJYA72GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA90GALH	AJY126GALH AJYA90GALH AJYA72GALH	AJY126GALH AJYA90GALH AJYA90GALH	AJY126GALH AJY126GALH AJYA72GALH	AJY126GALH AJY126GALH AJYA90GALH	AJY144GALH AJY126GALH AJYA90GALH	AJY126GALH AJY126GALH AJY126GALH	AJY144GALH AJY126GALH AJY126GALH
Maximum Connec	table Indoor Unit*1	24	33	36	39	42	45	48	51	54	57	60	64	64
Indoor unit connecta	ble capacity Cooling kV	/ 22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.6	42.4-126.0	45.2-135.6	48.0-144.0	51.2-153.6	54.0-162.0	56.5-169.5	60.0-180.0	62.5-187.5
Power source				3-phase 4 wire	e, 400 V, 50Hz					3-phase 4 wire	e, 400 V, 50Hz			
Oit	Cooling	, 44.8	62.4	67.2	72.8	78.4	78.4	90.4	90.4	102.4	108.0	113.0	120.0	125.0
Capacity	Heating	50.0	70.0	75.0	81.5	88.0	88.0	101.5	101.5	115.0	121.5	126.5	135.0	140.0
	Cooling	, 10.90	16.79	16.35	18.01	19.67	19.67	23.90	23.90	28.13	29.79	32.06	34.02	36.29
Input power	Heating	11.40	16.60	17.10	18.73	20.36	20.36	23.93	23.93	27.50	29.13	31.00	32.70	34.57
EER	Cooling W/	4.11	3.72	4.11	4.04	3.99	3.99	3.78	3.78	3.64	3.63	3.52	3.53	3.44
COP	Heating	4.39	4.22	4.39	4.35	4.32	4.32	4.24	4.24	4.18	4.17	4.08	4.13	4.05
Air flow rate	High m <sup>3</sup> /	h 11,100×2	13,000+11,100	11,100×3	11,100×3	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3
Sound pressure le	vel*2 / Cooling dE	59 / 80	61 / 82	61 / 82	62 / 83	62 / 83	63 / 84	63 / 84	64 / 85	64 / 85	64 / 86	65 / 86	65 / 86	65 / 86
Power level	Heating (A	61 / 83	63 / 85	63 / 85	63 / 85	63 / 85	64 / 86	64 / 86	65 / 87	65 / 87	65 / 87	65 / 87	66 / 88	66 / 88
Maximum external st	atic pressure Pa	80	80	80	80	80	80	80	80	80	80	80	80	80
Compressor moto	r output kW	7.5×2	11.0+7.5	7.5×3	7.5x3	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3
Heat exchanger fir	1	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	Height mr	n 1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	Width mr	n 930×2	1,240+930	930×3	930×3	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3
	Depth mr	n 765	765	765	765	765	765	765	765	765	765	765	765	765
Weight	kç	262×2	286+262	262×3	262×3	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×2+262	286×3	286×3
Refrigerant	Type (Global Warming Potentia	l) R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Reingerani	Charge kg	11.8×2	11.8×2	11.8x3	11.8×3	11.8×3	11.8×3	11.8x3	11.8x3	11.8×3	11.8×3	11.8x3	11.8×3	11.8×3
Connection	Liquid	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05
pipe diameter	Discharge Gas mr	n 22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92
p.po didifictor	Suction Gas	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27
	Cooling	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46
Operation	Heating °C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
range	Cooling/Heating	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

\*1 Minimum connectable indoor unit number is 2.

\*2 The noise value is the value when measured in an anechoic room. When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

# HEAT PUMP TYPE AIRSTAGE V-III series

Smart and cutting edge design
Extensive lineup from 8HP to 54HP in 2HP increment
Connectable indoor unit capacity ratio up to 150%

### System Outline



### **Excellent energy saving**

Heat pump inverter type realizes the highly energy saving air conditioning for individual cooling and heating operation by all inverter technology for seasonal efficiency.



# High design flexibility for various building air conditioning

High design flexibly meets the various needs of high-rise building air conditioning such as outdoor unit roof top concentrated installation and each floor installation by large capacity combination, sufficient connection capacity, and high static pressure design.



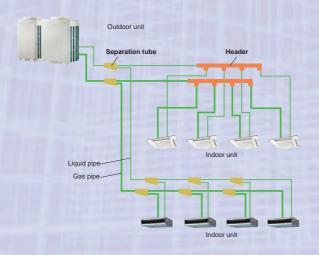
### Easy installation and maintenance

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



### System configuration example

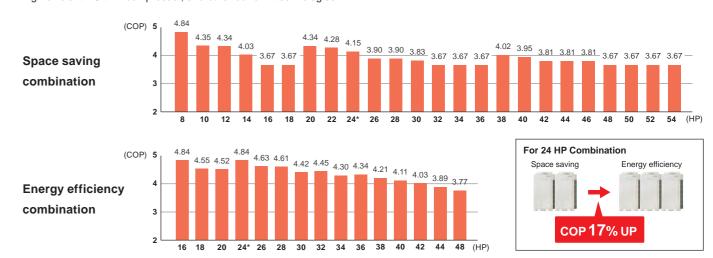
- This system is used for medium-sized and large buildings.
   Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers



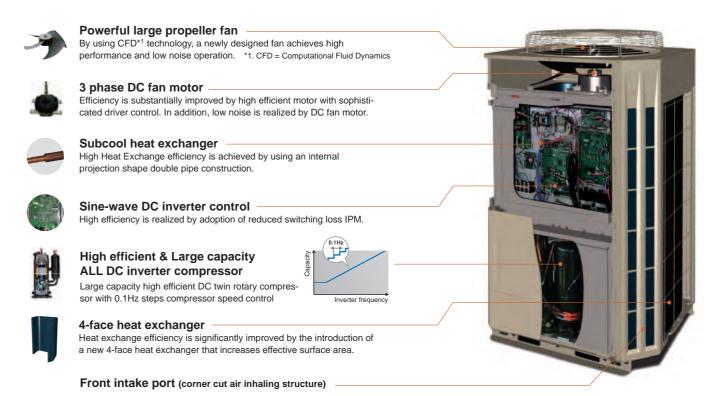
### **Features**

### Efficiency in actual operation

Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.



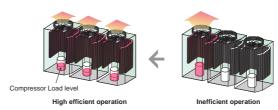
### Energy saving technology that boosted operation efficiency



### Advanced energy saving control

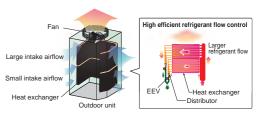
### Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.



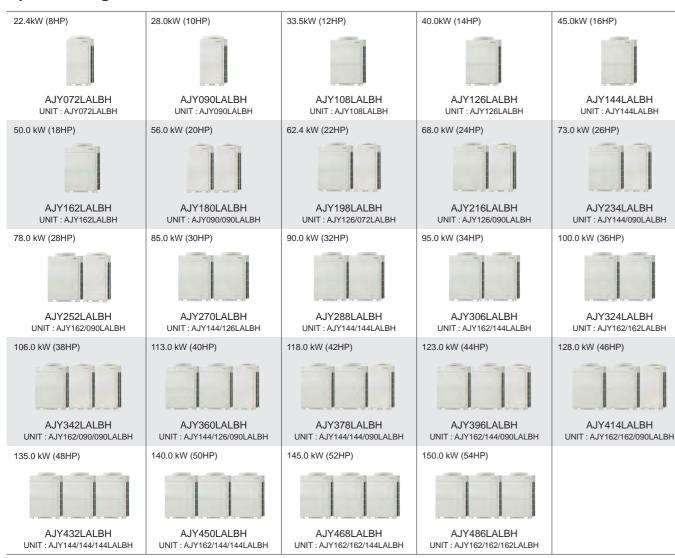
### Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.



• Combinations other than the followings are not recommended.

### **Space saving combination**

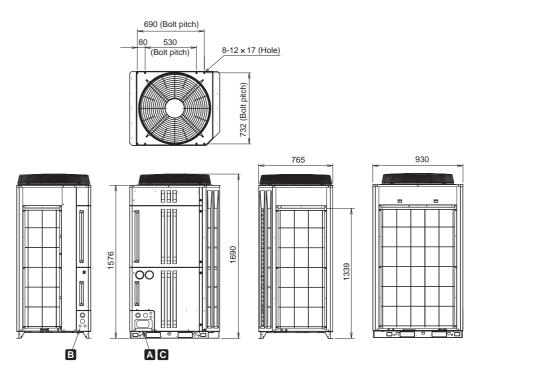


### **Energy efficiency combination**

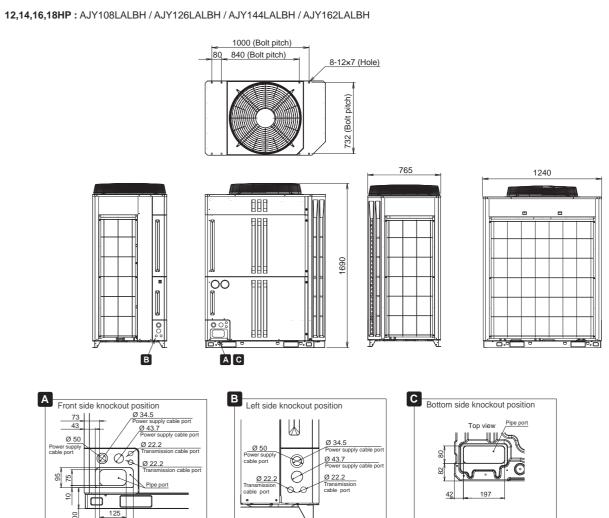


### **Dimensions**

8,10HP: AJY072LALBH / AJY090LALBH



(Unit:mm)



### **Space Saving Combination**

Rating Capacity ran	ge	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Model name			AJY072LALBI	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY162LALBH	AJY180LALBH	AJY198LALBH	AJY216LALBH	AJY234LALBH	AJY252LALBH	AJY270LALBI	AJY288LALBH	AJY306LALBH	AJY324LALBH	AJY342LALBH	AJY360LALBH	AJY378LALBH	AJY396LALBH	AJY414LALBH	AJY432LALBH	AJY450LALBH	AJY468LALBH	AJY486LALBH
Unit 1 Unit 2 Unit 3			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY162LALBH	AJY090LALBH AJY090LALBH	AJY126LALBH AJY072LALBH	AJY126LALBH AJY090LALBH	AJY144LALBH AJY090ALBH	AJY162LALBH AJY090LALBH	AJY144LALBH AJY126LALBH	AJY144LALBH AJY144LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY162LALBH	AJY162LALBH AJY090LALBH AJY090LALBH	AJY144LALBH AJY126LALBH AJY090LALBH	AJY144LALBH AJY144LALBH AJY090LALBH	AJY162LALBH AJY144LALBH AJY090LALBH	AJY162LALBH AJY162LALBH AJY090LALBH	AJY144LALBH AJY144LALBH AJY144LALBH	AJY162LALBH AJY144LALBH AJY144LALBH	AJY162LALBH AJY162LALBH AJY144LALBH	AJY162LALBH AJY162LALBH AJY162LALBH
Maximum Connect	able Indoor Ur	it*1	17	21	26	30	34	39	43	47	52	56	60	64	64	64	64	64	64	64	64	64	64	64	64	64
Indoor unit connectable	capacity C	ooling kV	V 11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.0-67.5	28.0-84.0	31.2-93.6	34.0-102.0	36.5-109.5	39.0-109.5	42.5-127.5	45.0-135.0	47.5-135.0	50.0-135.0	53.0-151.5	56.5-169.5	59.0-177.0	61.5-177.0	64.0-177.0	67.5-202.5	70.0-202.5	72.5-202.5	75.0-202.5
Power source							3-ph	ase 4 wire, 400 V,	50Hz										3-pl	nase 4 wire, 400 V, 5	0Hz					
Capacity	С	ooling	y 22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
		eating	25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	131.5	150.0	150.0	150.0	150.0
Input power		ooling	V 5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
		eating "	5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
EER		ooling W/	N 4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.55	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
COP Air flow rate		eating	4.84 /h 11.100	4.35	4.34	4.03	3.67	3.67	4.34 11.100×2	4.28 13.000+11.100	4.15 13.000+11.100	3.90 13.000+11.100	3.90 13.700+11.100	3.83 13.700+13.00	3.67 13.700×2	3.67 13.700×2	3.67 13.700×2	4.02 13.700+11.100×2	3.95 13.700+13.000+11.100	3.81 13.700×2+11.100	3.81 13.700x2+11.100	3.81 13.700×2+11.100	3.67 13.700×3	3.67 13.700×3	3.67 13.700x3	3.67 13.700x3
		gh m³/ poling de	7.11	11,100 58 / 79	13,000 57 / 78	13,000	13,700 62 / 83	13,700 63 / 84	61 / 82	61 / 82	62 / 83	63 / 84	64 / 85	13,700+13,00	65 / 88	13,700x2 66 / 87	13,700X2 66 / 87	65 / 86	65 / 86	66 / 87	66 / 87	67 / 87	67 / 88	67 / 88	67 / 88	68 / 89
Sound pressure level		eating (A		59 / 81	60 / 83	62 / 84	64 / 86	64 / 86	62 / 84	63 / 85	64/86	65 / 87	65 / 87	66 / 88	67/89	67 / 89	67 / 89	66/88	67/89	68 / 90	68/90	68/90	69 / 91	69 / 91	69 / 91	69 / 91
Maximum external station		Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor	·	kW	7.5	7.5	11.0	11.0	11.0	11.0	7.5x2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0x2	11.0x2	11.0x2	11.0×2	11.0+7.5x2	11.0×2+7.5	11.0x2+7.5	11.0×2+7.5	11.0×2+7.5	11.0x3	11.0x3	11.0x3	11.0x3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	H	eight mr	n 1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	V	idth mr	n 930	930	1,240	1,240	1,240	1,240	930×2	1,240+930	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3
		epth mr	n 765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kç	, 202	252	275	275	275	275	252×2	275+252	275+252	275+252	275+252	275×2	275×2	275×2	275×2	275+252×2	275×2+252	275×2+252	275×2+252	275×2+252	275×3	275x3	275x3	275x3
Refrigerant	Type (Global War	<u> </u>	, . ( ,)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
	Charge	kį	,	11.7	11.8	11.8	11.8	11.8	11.7x2	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7	11.8x2	11.8x2	11.8x2	11.8x2	11.8+11.7×2	11.8x2+11.7	11.8×2+11.7	11.8×2+11.7	11.8x2+11.7	11.8x3	11.8x3	11.8x3	11.8x3
Connection		quid mr	n 12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
pipe diameter	G		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation		ooling	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
range	Н	eating	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

### **Energy Efficiency Combination**

Rating Capacity ra	nge	HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
									33								
Model name			AJY144LALBHH	AJY162LALBHH	AJY180LALBHH	AJY216LALBHH	AJY234LALBHH	AJY252LALBHH	AJY270LALBHH	AJY288LALBHH	AJY306LALBHH	AJY324LALBHH	AJY342LALBHH	AJY360LALBHH	AJY378LALBHH	AJY396LALBHH	AJY414LALBHH
Unit 1			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY108LALBH	AJY126LALBH	AJY108LALBH	AJY126LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH	AJY144LALBH
Unit 2			AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY126LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH
Unit 3						AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY126LALBH	AJY126LALBH	AJY126LALBH
Maximum Connec	table Indoor U	Jnit*1	34	39	43	52	56	60	64	64	64			64	64	64	64
Indoor unit connecta	ble capacity (	Cooling kW	22.4-67.2	25.2-75.6	28.0-83.8	33.6-100.8	36.4-109.2	39.2-117.4	42.4-127.2	44.7-134.1	48.0-143.8	50.3-150.7	53.5-160.5	56.8-170.2	60.0-180.0	62.5-187.5	65.0-195.0
Power source					3-ph	nase 4 wire, 400 V, 5	0Hz						3-phase 4 wire	e, 400 V, 50Hz			
Canacity	(	Cooling kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	125.0	130.0
Capacity		Heating	50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0
Innert a series	(	Cooling kW	10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
Input power	ŀ	Heating	10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
EER	(	Cooling W/W	4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52
COP	H	Heating VV/VV	4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
Air flow rate	H	High m³/h	11,100×2	11,100×2	13,000+11,100	11,100×3	11,000×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3	13,000×3	13,000×3	13,700+13,000×2	13,700×2+13,000
Sound pressure le	vel*2 /	Cooling dB	59 / 80	60 / 81	60 / 81	61 / 82	62 / 83	61 / 82	63 / 84	61 / 82	63 / 84	63 / 83	64 / 84	64 / 85	65 / 88	66 / 87	66 / 87
Power level	ŀ	Heating (A)	61 / 83	62 / 84	62 / 85	63 / 85	63 / 85	64 / 86	65 / 87	64 / 87	65 / 88	65 / 88	65 / 88	66 / 88	67 / 89	68 / 90	68 / 90
Maximum external st	atic pressure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor moto	r output	kW	7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fi			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	١	Width mm	930×2	930×2	1,240+930	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3
		Depth mm	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	252×2	252×2	275+252	252×3	252×3	275+252×2	275+252×2	275×2+252	275×2+252	275×3	275×3	275×3	275×3	275×3	275×3
Refrigerant	71 \	arming Potential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
	Charge	kg	11.7×2	11.7×2	11.8+11.7	11.7×3	11.7x3	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
Connection		Liquid mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
pipe diameter		Gas	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
Operation		Cooling	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
range	l l	Heating	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

\*1 Minimum connectable indoor unit number is 2. However ARXC72 and ARXC90 can be used signal connection.

\*2 The noise value is the value when measured in an anechoic room. When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

# **HEAT PUMP TYPE**





Fujitsu General tropical VRF is designed for tropical weather. Extensive lineup from 8HP to 54HP in 2HP increment Connectable indoor unit capacity ratio up to 130%

### System Outline



### High ambient operation design

Possible to operate cooling up to 52°C outdoor temperature



### Powerful cooling capacity design

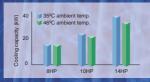
Keeping high cooling power at even high ambient temperature



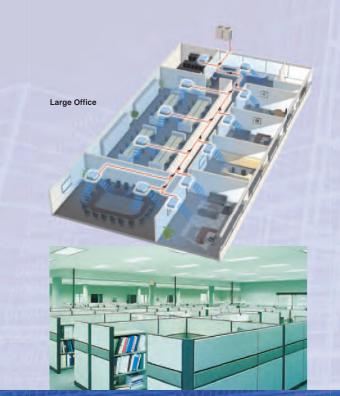
### **Anti-corrosion** treatment design

All metalic and PCB components are protected against corrosion



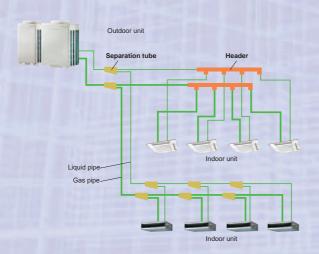






### System configuration example

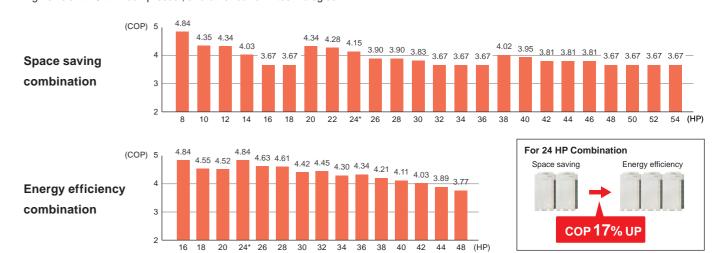
- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers



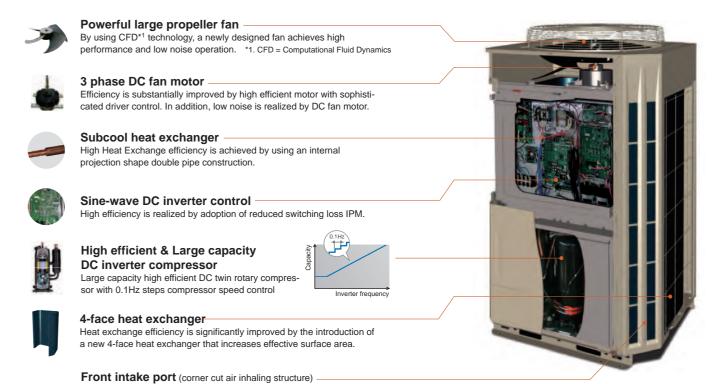
### **Features**

### Efficiency in actual operation

Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.



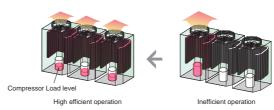
### Energy saving technology that boosted operation efficiency



### Advanced energy saving control

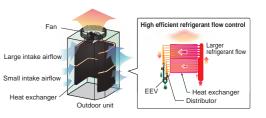
### Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.



### Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.



• Combinations other than the followings are not recommended.

### **Space saving combination**

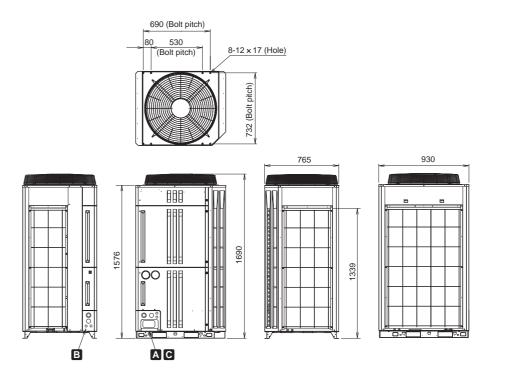


### **Energy efficiency combination**

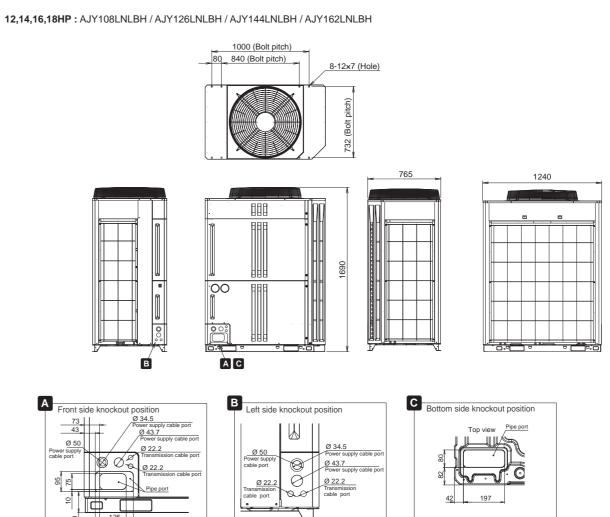


### **Dimensions**

8,10HP: AJY072LNLBH/AJY090LNLBH



(Unit:mm)



### **Space Saving Combination**

Rating Capacity range	HP		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
	'										8						33									
Model name			AJY072LNLBH	AJY090LNLBH	AJY108LNLBH	AJY126LNLBH	AJY144LNLBH	AJY162LNLBH	AJY180LNLBH	AJY198LNLBH	AJY216LNLBH	AJY234LNLBH	AJY252LNLBH	AJY270LNLBH	AJY288LNLBH	AJY306LNLBH	AJY324LNLBH	AJY342LNLBH	AJY360LNLBH	AJY378LNLBH	AJY396LNLBH	AJY414LNLBH	AJY432LNLBH	AJY450LNLBH	AJY468LNLBH	AJY486LNLBH
Unit 1 Unit 2 Unit 3		,	AJY072LNLBH	AJY090LNLBH	AJY108LNLBH	AJY126LNLBH	AJY144LNLBH	AJY162LNLBH			AJY126LNLBH AJY090LNLBH			AJY144LNLBH AJY126LNLBH	AJY144LNLBH AJY144LNLBH	AJY162LNLBH AJY144LNLBH	AJY162LNLBH AJY162LNLBH	AJY162LNLBH AJY090LNLBH AJY090LNLBH	AJY144LNLBH AJY126LNLBH AJY090LNLBH	AJY144LNLBH AJY144LNLBH AJY090LNLBH	AJY162LNLBH AJY144LNLBH AJY090LNLBH	AJY162LNLBH AJY162LNLBH AJY090LNLBH	AJY144LNLBH AJY144LNLBH AJY144LNLBH	AJY162LNLBH AJY144LNLBH AJY144LNLBH	AJY162LNLBH AJY162LNLBH AJY144LNLBH	AJY162LNLBH AJY162LNLBH AJY162LNLBH
Maximum Connectable Ind	loor Unit		13	16	19	23	26	29	33	36	40	43	46	50	53	55	55	55	55	55	55	55	55	55	55	55
Indoor unit connectable capac	city	kW	11.2-29.1	14-36.4	16.8-43.5	20-52	22.5-58.5	25-65	28-72.8	31.2-81.1	34-88.4	36.5-94.9	39-101.4	42.5-110.5	45-117	47.5-123.5	50-130	53-137.8	56.5-146.9	59-153.4	61.5-159.9	64-166.4	67.5-175.5	70-182	72.5-188.5	75-195
Power source							3N ~ 400	V, 50/60Hz											;	3N ~ 400V, 50/60H	z					
	Cooling	k\//	22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
Capacity	Heating	KVV	25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	131.5	150.0	150.0	150.0	150.0
Capacity	Cooling	Rtu/h	76400	95500	114300	136500	153500	170600	191000	212900	232000	249000	266100	290000	307000	324100	341200	361600	385500	402500	419600	436700	460500	477600	494700	511800
	Heating	Diani	85300	107500	128000	153500	170600	170600	215000	238800	261000	278100	278100	324100	341200	341200	341200	385600	431600	448700	448700	448700	511800	511800	511800	511800
_ Input power	Cooling	kW	5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
T1	Heating		5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
condition Current	Cooling	_ A	9.2	12.0	15.0	17.7	20.7	26.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
550	Heating		9.2	12.2	14.6	18.2	21.5	21.5	-	-		-	-	-	- 0.40	-	-		-	-	-	- 0.47	- 0.40	-	-	-
COP	Cooling	- w/w	4.31	3.85	3.74 4.34	3.65 4.03	3.46	3.02	3.85 4.34	3.86	3.73 4.15	3.60	3.27	3.55 3.83	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
EER	Heating Cooling		4.84 14.7	4.35	12.8	12.5	11.8	3.67 10.3	13.1	4.28 13.2	12.7	12.3	3.90 11.2	3.83	11.8	11.0	10.3	4.02 11.6	12.3	3.81 12.1	11.4	10.8	11.8	11.2	10.7	10.3
COP	Heating	Btu/h/W	16.5	14.8	14.8	13.7	12.5	12.5	14.8	14.6	14.2	13.3	13.3	13.1	12.5	12.5	12.5	13.7	13.5	13.0	13.0	13.0	12.5	12.5	12.5	12.5
	ricating	kW	20.2	25.2	28.5	32	35.1	35.2	50.4	52.2	57.2	60.3	60.4	67.1	70.2	70.3	70.4	85.6	92.3	95.4	95.5	95.6	105.3	105.4	105.5	105.6
Capacity		Btu/h	68900	86000	97200	109200	119800	120100	172000	178100	195200	205800	206100	229000	239600	239900	240200	292100	315000	325600	325900	326200	359400	359700	360000	360300
T3 Input power	Cooling	kW	6.73	9.20	9.34	10.70	11.82	12.35	18.39	17.44	19.90	21.02	21.55	22.52	23.64	24.17	24.70	30.75	31.72	32.83	33.37	33.90	35.45	35.99	36.52	37.05
condition Current		A	10.8	14.5	14.7	16.9	18.6	19.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FFR	Cooling	W/W	3.00	2.74	3.05	2.99	2.97	2.85	2.74	2.99	2.87	2.87	2.80	2.98	2.97	2.91	2.85	2.78	2.91	2.91	2.86	2.82	2.97	2.93	2.89	2.85
EER	Cooling	Btu/h/W	10.23	9.35	10.40	10.20	10.14	9.72	9.35	10.21	9.81	9.79	9.56	10.17	10.14	9.93	9.72	9.50	9.93	9.92	9.77	9.62	10.14	10.00	9.86	9.72
Power factor		%	90	92	92	92	92	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Airflow rate	High	m³/h	11100	11100	13000	13000	13700	13700	11100×2	13000+11100	13000+11100	13700+11100	13700+11100	13700+13000	13700×2	13700×2	13700×2	13700+11100×2	13700+13000+11100	13700×2+11100	13700×2+11100	13700×2+11100	13700×3	13700×3	13700×3	13700×3
Sound pressure level /	Cooling	dB	56 / 77	58 / 79	57 / 78	60 / 81	62 / 83	63 / 84	61 / 82	61 / 82	62 / 83	63 / 84	64 / 85	64 / 85	65 / 88	66 / 87	66 / 87	65 / 86	65 / 86	66 / 87	66 / 87	67 / 87	67 / 88	67 / 88	67 / 88	68 / 89
Power level	Heating	(A)	58 / 80	59 / 81	60 / 83	62 / 84	64 / 86	64 / 86	62 / 84	63 / 85	64 / 86	65 / 87	65 / 87	66 / 88	67 / 89	67 / 89	67 / 89	66 / 88	67 / 89	68 / 90	68 / 90	68 / 90	69 / 91	69 / 91	69 / 91	69 / 91
External static pressure (Ma	ax)	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	7.5	7.5	11	11	11	11	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	Height	<b>⊣</b> ⊦	1690	1690	1690	1690	1690	1690	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3
Dimensions	Width	mm	930	930	1240	1240	1240	1240	930×2	1240+930	1240+930	1240+930	1240+930	1240×2	1240×2	1240×2	1240×2	1240+930×2	1240×2+930	1240×2+930	1240×2+930	1240×2+930	1240×3	1240×3	1240×3	1240×3
W-1-14	Depth	lua .	765	765	765	765	765	765	765×2	765x2	765×2	765x2	765×2	765×2	765×2	765×2	765×2	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3
Weight	T	kg	255 R410A	255 R410A	279	279 R410A	279 R410A	279	255×2 R410A	279+255 R410A	279+255 R410A	279+255 R410A	279+255 R410A	279×2 R410A	279x2	279×2 R410A	279×2 R410A	279+255×2 R410A	279×2+255 R410A	279×2+255 R410A	279×2+255 R410A	279×2+255 R410A	279×3 R410A	279×3 R410A	279×3 R410A	279×3 R410A
Refrigerant	Type	ount ka	11.7	11.7	R410A 11.8	11.8	11.8	R410A 11.8	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	R410A 11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8x3	11.8×3	11.8×3
	Factory charged amo	ount Kg	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe diameter	Gas	- mm	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
	Cooling		-15 to 52	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
Operation range	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
	1 ricating		201021	201021	201021	1 20 10 21	201021	201021	201021	201021	20 10 21	201021	201021	20 10 21	201021	201021	1 201021	20.021	20 10 21	201021	201021	20 10 21	20.021	201021	201021	1 20 10 21

### **Energy Efficiency Combination**

Rating Capacity range	ige	HP		16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
												333						
Model name				AJY144LNLBHH	AJY162LNLBHH	AJY180LNLBHH	AJY216LNLBHH	AJY234LNLBHH	AJY252LNLBHH	AJY270LNLBHH	AJY288LNLBHH	AJY306LNLBHH	AJY324LNLBHH	AJY342LNLBHH	AJY360LNLBHH	AJY378LNLBHH	AJY396LNLBHH	AJY414LNLBHH
Unit 1				AJY072LNLBH	AJY090LNLBH	AJY108LNLBH	AJY072LNLBH	AJY090LNLBH	AJY108LNLBH	AJY126LNLBH	AJY108LNLBH	AJY126LNLBH	AJY108LNLBH	AJY126LNLBH	AJY126LNLBH	AJY126LNLBH	AJY144LNLBH	AJY144LNLBH
Unit 2 Unit 3				AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY108LNLBH	AJY108LNLBH	AJY108LNLBH	AJY108LNLBH	AJY126LNLBH	AJY126LNLBH	AJY126LNLBH	AJY144LNLBH
				20	20		AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY072LNLBH	AJY108LNLBH	AJY108LNLBH	AJY108LNLBH	AJY126LNLBH	AJY126LNLBH	AJY126LNLBH
Maximum Connecta Indoor unit connectabl		ıt	kW	26 22.4-58.2	29 25.2-65.5	33 28-72.6	39 33.6-87.3	43 36.4-94.6	46 39.2-101.7	50 42.4-110.2	52 44.7-116.2	55 48-124.6	55 50.3-130.6	55 53.5-139.1	55 56.8-147.5	55 60-156	55 62.5-162.5	55 65-169
	ie capacity		KVV	22.4-58.2	25.2-65.5	28-72.0			39.2-101.7	42.4-110.2	44.7-110.2	48-124.0	50.3-130.0	53.5-139.1		00-100	02.5-102.5	60-169
Power source							3N ~ 400\								3N ~ 400V, 50/60Hz			
		Cooling	kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	125.0	130.0
Capacit	ty 📙	Heating		50.0	56.5 171900	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0
	$\vdash$	Cooling Heating	Btu/h	152800 170600	171900	190700 213300	229200 255900	248300 278100	267100 298600	289300 324100	305000 341300	327200 366800	342900 384000	365100 409500	387300 435000	409500 460500	426500 477600	443500 494700
		Cooling		10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
T1 Input po	ower	Heating	kW	10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
condition		Cooling		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current	t	Heating	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EER		Cooling	14/04/	4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52
COP		Heating	W/W	4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
EER		Cooling	Dtr/b/M	14.7	13.8	13.5	14.7	14.0	13.8	13.5	13.2	13.0	12.8	12.6	12.5	12.5	12.2	12.0
COP		Heating	DIU/II/VV	16.5	15.5	15.4	16.5	15.8	15.7	15.1	15.2	14.7	14.8	14.4	14.0	13.7	13.3	12.9
Capacit	ty		kW	40.4	45.4	48.7	60.6	65.6	68.9	72.4	77.2	80.7	85.5	89.0	92.5	96.0	99.1	102.2
		Cooling	Btu/h	137800	154900	166100	206700	223800	235000	247000	263300	275300	291600	303600	315600	327600	338200	348800
T3 Input po			kW	13.47	15.93	16.08	20.20	22.66	22.81	24.17	25.42	26.78	28.03	29.39	30.75	32.11	33.22	34.34
condition Current	t		A	2.00	2.85	- 2.02	- 2.00	- 2.00	2.02	2.00	- 204	3.01	2.05	2.02	3.01	2.00	- 2.00	2.98
EER		Cooling	W/W Btu/h/W	3.00 10.23	9.72	3.03 10.33	3.00 10.23	2.89 9.87	3.02 10.30	3.00 10.22	3.04 10.36	10.28	3.05 10.40	3.03 10.33	10.26	2.99	2.98 10.18	10.16
Power factor			%	10.23	9.72	10.33	10.23	9.07	10.30	10.22	10.36	10.20	10.40	10.55	10.20	10.20	10.16	10.16
Airflow rate		High	m³/h	11100×2	11100×2	13000+11100	11100×3	11100×3	13000+11100×2	13000+11100×2	13000×2+11100	13000×2+11100	13000×3	13000×3	13000×3	13000×3	13700+13000×2	13700×2+13000
Sound pressure leve	al /	Cooling	dB	59 / 80	60 / 81	60 / 81	61 / 82	62 / 83	61 / 82	63 / 84	61 / 82	63 / 84	63 / 83	64 / 84	64 / 85	65 / 88	66 / 87	66 / 87
Power level	~·	Heating	(A)	61 / 83	62 / 84	62 / 85	63 / 85	63 / 85	64 / 86	65 / 87	64 / 87	65 / 88	65 / 88	65 / 88	66 / 88	67 / 89	68 / 90	68 / 90
External static press	ure (Max)	<u> </u>	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor o	output		kW	7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin				Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height		1690×2	1690×2	1690×2	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3
Dimensions		Width	mm	1240×2	1240×2	1240+930	930×3	930×3	1240+930×2	1240+930×2	1240×2+930	1240×2+930	1240×3	1240×3	1240×3	1240×3	1240×3	1240×3
		Depth		765×2	765×2	765×2	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3
Weight			kg	279×2	279×2	279+255	255×3	255×3	279+255×2	279+255×2	279×2+255	279×2+255	279×3	279×3	279×3	279×3	279×3	279×3
Refrigerant		Туре		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Fact	tory charged amount	t kg	11.7×2	11.7×2	11.8+11.7	11.7×3	11.7×3	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8x3	11.8×3	11.8x3	11.8×3	11.8×3
Connection pipe diar	meter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
		Gas		28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
Operation range	<u> </u>	Cooling	°CDB	-5 to 46	-5 to 46 -20 to 21	-5 to 46	-5 to 46	-5 to 46	-5 to 46									
		Heating		-20 to 21	-20 10 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note: Specifications are based on the following conditions.

Cooling(T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB

Cooling(T3): Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°CDB / 24°CWB

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5m. Height difference between outdoor and indoor unit: 0m.

# **HEAT PUMP TYPE**

**AIRSTAGE V**-**I** series

Smart and cutting edge design
Extensive lineup from 8HP to 48HP in 2HP increment
Connectable indoor unit capacity ratio up to 150%

### System Outline



### **Excellent energy savings**

Heat pump type inverter control is used to achieve economic cooling and heating operation for individual air conditioning to entire air conditioning.



# High design flexibility for various building air conditioning

The high static pressure design flexibly meets the needs of high rise buildings including easy installation on each floor.



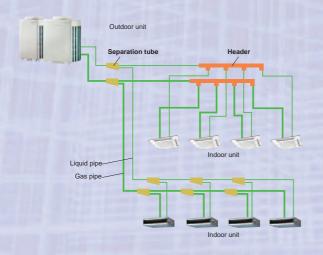
### Easy installation and maintenance

The flexible communication method and piping connections makes installation and maintenance easy



### System configuration example

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

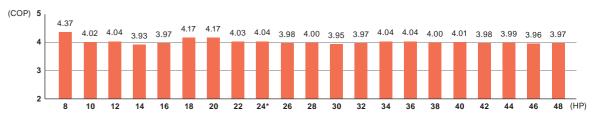


### **Features**

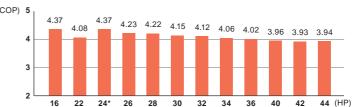
### Efficiency in actual operation

Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.





Energy efficiency combination





### Energy saving technology that boosted 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



### DC fan motor

Power consumption has been reduced by 25% compared to previous models by using a compact and high performance DC fan motor.



### Subcool heat exchanger

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construc-



### Sine-wave DC inverter control

High efficiency operation is realized by using a sine wave DC inverter control.



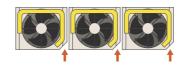
### DC twin rotary compressor

Significantly greater efficiency is realized by use of a large capacity DC twin rotary compressor with substantially increased refrigerant intake and compression efficiency.



### 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.





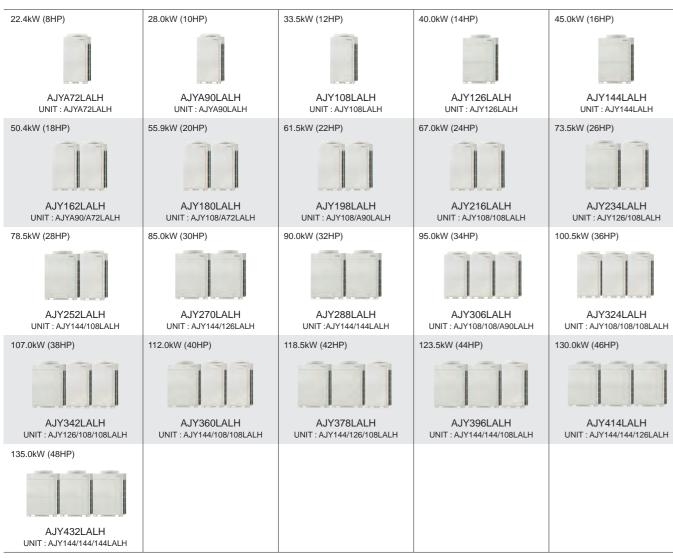
### Front intake port

(Corner cut air inhaling structure)

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

• Combinations other than the followings are not recommended.

### **Space saving combination**

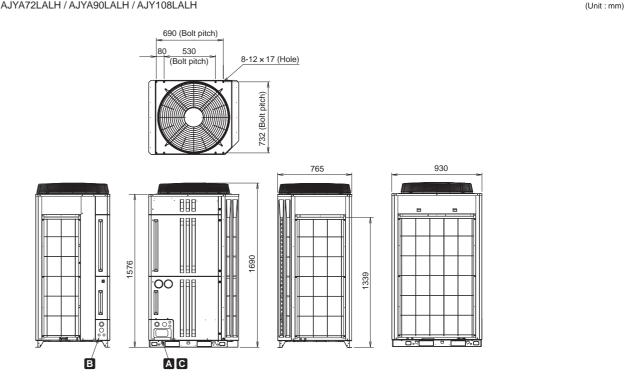


### **Energy efficiency combination**

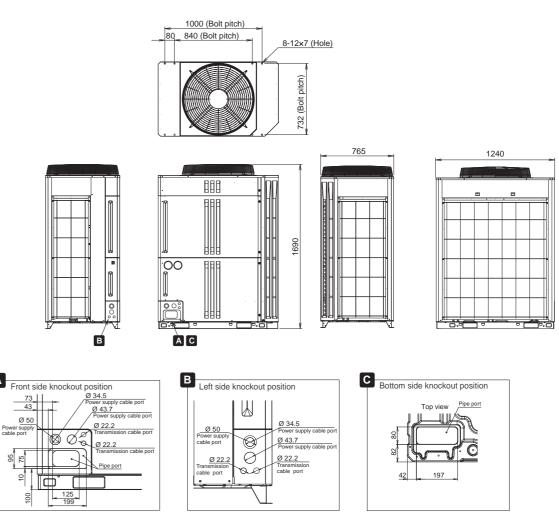


### **Dimensions**

8,10,12HP: AJYA72LALH / AJYA90LALH / AJY108LALH



14,16HP: AJY126LALH / AJY144LALH



### **Space Saving Combination**

Rating Capacity ran	nge	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
	·															1							
Model name			AJYA72LALH	I AJYA90LALH	I AJY108LALH	AJY126LALH	AJY144LALH	AJY162LALH	AJY180LALH	AJY198LALH	AJY216LALH	AJY234LALH	AJY252LALH	AJY270LALH	AJY288LALH	AJY306LALH	AJY324LALH	AJY342LALH	AJY360LALH	AJY378LALH	AJY396LALH	AJY414LALH	I AJY432LALH
Unit 1 Unit 2 Unit 3			AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY144LALH		AJY108LALH AJYA72LALH	AJY108LALH AJYA90LALH	AJY108LALH AJY108LALH	AJY126LALH AJY108LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH	AJY144LALH AJY144LALH	AJY108LALH AJY108LALH AJYA90LALH	AJY108LALH AJY108LALH AJY108LALH	AJY126LALH AJY108LALH AJY108LALH	AJY108LALH	AJY144LALH AJY126LALH AJY108LALH	AJY144LALH AJY144LALH AJY108LALH	AJY144LALH AJY144LALH AJY126LALH	AJY144LALH
Maximum Connect	table Indoor U	Jnit*1	15	16	17	21	24	32	32	32	35	39	42	45	48	48	48	48	48	48	48	48	48
Indoor unit connectable	e capacity (	Cooling kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-83.8	30.8-92.2	33.5-100.5	36.8-110.2	39.3-117.7	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.7	53.5-160.5	56.0-168.0	59.3-177.7	61.8-185.2	65.0-195.0	67.5-202.5
Power source						3-pha	se 4 wire, 400 V	/, 50Hz									3-phase 4 wir	e, 400 V, 50Hz					
Capacity	(	Cooling kW	22.4	28.0	33.5	40.0	45.0	50.4	55.9	61.5	67.0	73.5	78.5	85.0	90.0	95.0	100.5	107.0	112.0	118.5	123.5	130.0	135.0
	ŀ	Heating KW	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0	82.5	87.5	95.0	100.0	106.5	112.5	120.0	125.0	132.5	137.5	145.0	150.0
Input power	(	Cooling	5.51	7.73	9.62	11.53	14.17	13.24	15.13	17.35	19.24	21.15	23.79	25.70	28.34	26.97	28.86	30.77	33.41	35.32	37.96	39.87	42.51
		Heating KW	5.72	7.83	9.28	11.45	12.60	13.55	15.00	17.11	18.56	20.73	21.88	24.05	25.20	26.39	27.84	30.01	31.16	33.33	34.48	36.65	37.80
EER		Cooling W/W	4.07	3.62	3.48	3.47	3.18	3.81	3.69	3.54	3.48	3.48	3.30	3.31	3.18	3.52	3.48	3.48	3.35	3.36	3.25	3.26	3.18
COP		Heating	4.37	4.02	4.04	3.93	3.97	4.17	4.17	4.03	4.04	3.98	4.00	3.95	3.97	4.04	4.04	4.00	4.01	3.98	3.99	3.96	3.97
Air flow rate		High m³/h	11,100	11,100	11,100	13,000	13,000	11,100 x 2	11,100 x 2	11,100 x 2	11,100 x 2	13,000 + 11,100	.,	13,000 x 2	13,000 x 2	11,100 x 3	11,100 x 3	13,000 + 11,100 × 2	, , , , ,		13,000 × 2 + 11,100	13,000 x 3	13,000 x 3
Sound		Cooling dB	56	58	58	60	61	60	60	61	61	62	63	64	64	63	63	64	64	65	65	65	66
pressure level*2		Heating (A)	58	59	60	61	61	62	62	63	63	64	64	64	64	64	65	65	65	65	65	66	66
Maximum external station		Pa	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Compressor motor		kW	3.9	3.9	3.9 + 4.5	3.9 + 4.5	3.9 + 4.5	3.9 x 2	3.9 x 2 + 4.5		3.9 x 2 + 4.5 x 2												3 3.9 x 3 + 4.5 x 3
Heat exchanger fin		Height mm	Blue fin 1.690	Blue fin 1.690	Blue fin	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin 1.690	Blue fin
Dimensions		Width mm	,	930	1,690 930	1,090	1,090	930 x 2	930 x 2	930 x 2	930 x 2	930 + 1,240	930 + 1.240	1,690 1.240 x 2	1,090 1,240 x 2	930 x 3	930 x 3	930 x 2 + 1.240	,	930 + 1,240 x 2	,	1,090 1,240 x 3	1,690 1.240 x 3
Dimensions	_	Depth mm	930 765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		ka ka	220	220	275	303	303	220 + 220	275 + 220	275 + 220	275 + 275	303 + 275	303 + 275	303 + 303									3 303 + 303 + 303
	Type (Global Wa	/arming Potential)	R410A (2.088)	R410A (2,088)	) R410A (2,088)	R410A (2,088)	R410A (2.088)	R410A (2,088)	R410A (2.088)	R410A (2.088)	R410A (2,088)	R410A (2.088)		R410A (2.088)		R410A (2,088)							
Refrigerant	Charge	ka	11.2	11.2	11.8	11.8	11.8	11.2 x 2	11.8 + 11.2	11.8 + 11.2	11.8 x 2	11.8 x 2 + 11.2	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3				
Connection		Liquid	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
pipe diameter		Gas	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation		Cooling	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
range	H	Heating	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

### **Energy Efficiency Combination**

Rating Capacity ra	ange	HP		16	22	24	26	28	30	32	34	36	40	42	44
Model name				AJY144LALHH	AJY198LALHH	AJY216LALHH	AJY234LALHH	AJY252LALHH	AJY270LALHH	AJY288LALHH	AJY306LALHH	AJY324LALHH	AJY360LALHH	AJY378LALHH	AJY396LALHH
Unit 1				AJYA72LALH	AJY126LALH	AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY108LALH	AJY126LALH	AJY126LALH	AJY126LALH	AJY126LALH	AJY144LALH
Unit 2				AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJY108LALH	AJY108LALH	AJY126LALH	AJY126LALH	AJY126LALH	AJY126LALH
Unit 3						AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJY108LALH	AJY126LALH	AJY126LALH
Maximum Conne	ctable Indoor	Unit*1		30	33	36	39	42	45	48	48	48	48	48	48
Indoor unit connect	able capacity	Cooling	kW	22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.4	42.4-127.2	44.7-134.1	48.0-143.8	51.2-153.6	56.8-170.2	60.0-180.0	62.5-187.5
Power source			Т			3-phase 4 wire	e, 400 V, 50Hz					3-phase 4 wire	e, 400 V, 50Hz		
0		Cooling	kW	44.8	62.4	67.2	72.8	78.3	84.8	89.4	95.9	102.4	113.5	120.0	125.0
Capacity		Heating	KVV –	50.0	70.0	75.0	81.5	87.5	95.0	100.0	107.5	115.0	127.5	135.0	140.0
In most or more		Cooling	kW -	11.02	17.04	16.53	18.75	20.64	22.55	24.75	26.66	28.57	32.68	34.59	37.23
Input power	Γ	Heating	KVV –	11.44	17.17	17.16	19.27	20.72	22.89	24.28	26.45	28.62	32.18	34.35	35.50
EER		Cooling	v/w	4.07	3.66	4.07	3.88	3.79	3.76	3.61	3.60	3.58	3.47	3.47	3.36
COP		Heating	V/ V V	4.37	4.08	4.37	4.23	4.22	4.15	4.12	4.06	4.02	3.96	3.93	3.94
Air flow rate		High r	n³/h	11,100 x 2	13,000 + 11,100	11,100 x 3	11,100 x 3	11,100 x 3	13,000 + 11,000 x 2	11,100 x 3	13,000 + 11,100 x 2	13,000 x 2 + 11,100	13,000 x 2 + 11,100	13,000 x 3	13,000 x 3
Sound			dB	59	61	61	62	62	63	62	63	64	64	65	65
pressure level*2		Heating	(A)	59	62	61	62	63	63	64	64	65	65	66	66
Maximum external s	static pressure	Pa		80	80	80	80	80	80	80	80	80	80	80	80
Compressor moto	or output	kW		3.9 x 2	3.9 x 2 + 4.5	3.9 x 3	3.9 x 3	3.9 x 3 + 4.5	3.9 x 3 + 4.5	$3.9 \times 3 + 4.5 \times 2$	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3
Heat exchanger f				Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	_	- 3	mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	<u> </u>		nm	930 x 2	930 + 1,240	930 x 3	930 x 3	930 x 3	930 x 2 + 1,240	930 × 3	930 x 2 + 1,240	930 + 1,240 x 2	930 + 1,240 x 2	1,240 x 3	1,240 x 3
		Depth I	mm	765	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	220 + 220	303 + 220	220 + 220 + 220	220 + 220 + 220	275 + 220 + 220	303 + 220 + 220	275 + 275 + 220	303 + 275 + 220	303 + 303 + 220	303 + 303 + 275	303 + 303 + 303	303 + 303 + 303
Refrigerant	Type (Global \			R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)
Tromgorant	Charge		kg	11.2 x 2	11.8 + 11.2	11.2 x 3	11.2 x 3	11.8 + 11.2 x 2	11.8 + 11.2 x 2	11.8 × 2 + 11.2	11.8 x 2 + 11.2	11.8 x 2 + 11.2	11.8 x 3	11.8 x 3	11.8 x 3
Connection	L	Liquid	mm –	12.70	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05
pipe diameter		Gas		28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27
Operation	_	Cooling	°C _	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
range		Heating	~	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

\*1 Minimum connectable indoor unit number is 2. However ARXC72 and ARXC90 can be used signal connection.

\*2 The noise value is the value when measured in an anechoic room. When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

# **HEAT PUMP TYPE**

NEW AIRSTAGE J- I series

Fujitsu General provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

### System Outline



### High Energy Efficiency

Heat pump inverter control is used to achieve an efficient cooling and heating operation in any indoor unit combination.



# Flexible systems for small- and medium-size buildings air conditioning

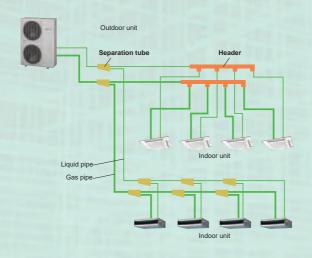
Space saving design and long piping design allow for flexible installation on the roofs or balconies of small-and medium-size buildings.

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



### System configuration example

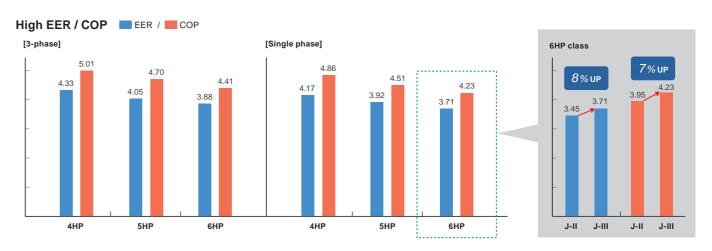
- This system is used for small and medium-sized buildings.
- 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers.



### **Features**

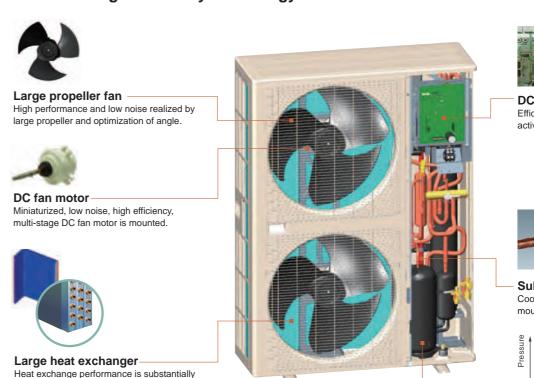
### Efficiency in actual operation

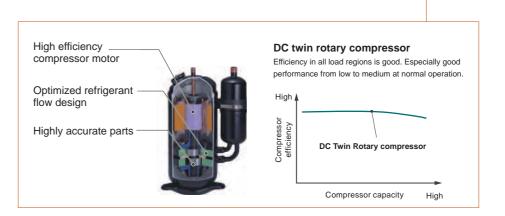
Top class high COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.



### Advanced high efficiency technology

improved by mounting of 3-row large heat







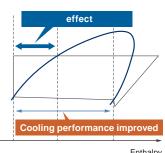
### DC inverter control

Efficiency is improved by mounting of new active filter module.



### Subcool heat exchanger

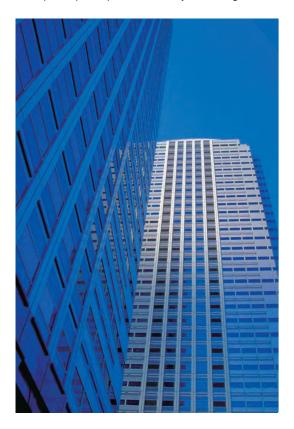
Cooling performance is improved by mounting of dual tube heat exchanger.

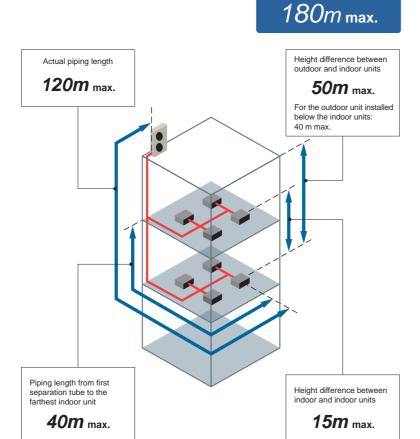


Enthalp

### Long piping capability

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 180m. This opens up new possibilities in system design.

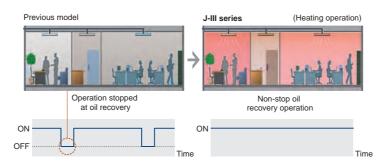




Total pipe length

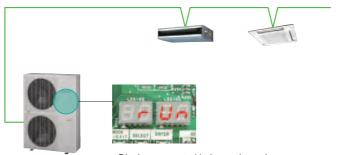
### Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.



### **Easier Installation**

Connection check function: Possible to confirm whether wiring connection and address setting are correct by a quick check run function.



• Display connected indoor unit numbers

### **Specifications**

Rating Capacity range H		HP		4	5	6	4	5	6	
Model name				AJY040LBLAH	AJY045LBLAH	AJY054LBLAH	AJY040LELAH	AJY045LELAH	AJY054LELAH	
Maximum Conne	ctable Indo	or Unit		1-9	1-10	1-13	1-9	1-10	1-13	
Power source				S	ingle-phase, ~230V, 50H	łz		3-phase, ~400V, 50Hz		
Capacity		Cooling	kW	12.1	14.0	15.5	12.1	14.0	15.5	
Сараспу		Heating	KVV	13.6	16.0	18.0	13.6	16.0	18.0	
		Cooling	kW	2.90	3.57	4.18	2.79	3.46	3.99	
Input power		Heating		2.80	3.55	4.26	2.71	3.40	4.08	
EER		Cooling		4.17	3.92	3.71	4.33	4.05	3.88	
COP		Heating	W/W	4.86	4.51	4.23	5.01	4.70	4.41	
Air flow rate		m³/h	6,200	6,400	6,900	6,200	6,400	6,900		
Sound pressure	level /	Cooling Heating		50 / 66	51 / 67	53 / 69	50 / 66	51 / 67	53 / 69	
Power level				52 / 68	2/68 53/69 55/71 5		52 / 68	53 / 69	55 / 71	
Heat exchanger	i i i i i i i i i i i i i i i i i i i			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	
		Height	1,334 mm 970		1,334	1,334	1,334	1,334	1,334	
Net Dimensions		Width			970	970	970	970	970	
		Depth	1	370	370	370	370	370	370	
Weight			kg	117	117	119	119	119	119	
Define	Type (Globa	Warming Po	tential)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	R410A (2,088)	
Refrigerant	Charge		kg	4.8	5.3	5.3	4.8	5.3	5.3	
Connection		Liquid		9.52	9.52	9.52	9.52	9.52	9.52	
pipe diameter		Gas	mm	15.88	15.88	19.05	15.88	15.88	19.05	
Total pipe length				180	180	180	180	180	180	
Max. Height diffe	rence		m	50/40	Outdoor unit: Upper/Lo	ower)	50/4	O (Outdoor unit: Upper/Lo	ower)	
Operation		Cooling	°C	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	
range		Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	

Note: Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

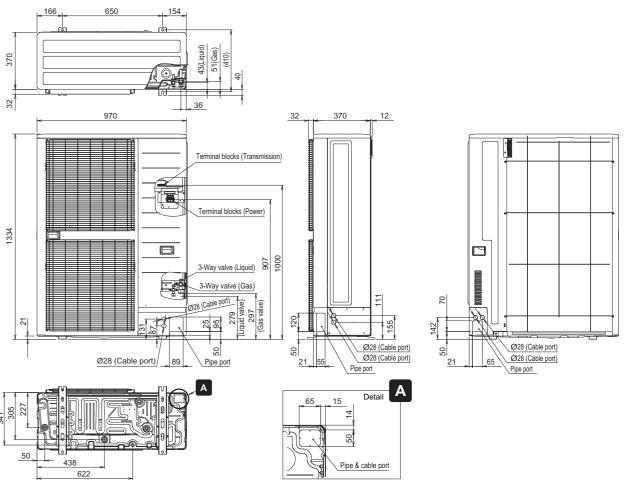
Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

The protective function may work when using it outside the operation range.

### **Dimensions**

 $\textbf{Model:} \ A \texttt{JY040LBLAH/AJY045LBLAH/AJY054LBLAH/AJY040LELAH/AJY045LELAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY054LEAH/AJY05AUTAH/AJY05AUTAH/AJY05AUTAH/AJY05AUTAH/AJY05AUTAH/AJY05AUTAH/AJY05AU$ 

(Unit:mm)



<sup>•</sup> Duplicately set address number of indoor unit can be displayed

Fujitsu General provides air conditioning systems for a wide range of applications from small office buildings and stores to large houses.

### System Outline



### Space saving and low sound level design

Economical individual air conditioning is realized by ALL-DC technology, large capacity DC twin rotary compressor, and 3-row heat exchanger though the size

### Flexible systems for homes, shops, small-size buildingss air conditioning

Due to compact size design and flexible piping design, J-IIS series can be installed easily at the place where the installation space is limited such as homes, shops, and small offices. Multiple indoor units of various capacities and types can be connected.

# System configuration example Large Homes Liquid pipe

### **Features**

### It Can be Easily Carried and **Installed Obscure Place**



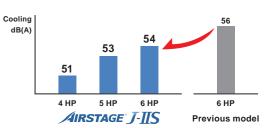
### Small and light weight outdoor unit

This model is much more compact than conventional 6HP comparable outdoor units. Even when installed on the balcony it fits within the height of the fence. The compact size with a height of less than 1 m allows it to be installed under windows and in tight spaces



### Low sound level design

Significantly low sound level is improved by using DC twin rotary compressor, inverter technology, and advanced airflow structure design.



### Advanced high efficiency technology



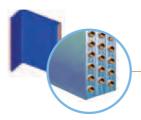
### Large propeller fan

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



### DC fan motor

Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.



### Large heat exchanger

Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.



High heat transfer copper tube (Improved



Smooth airflow grille

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

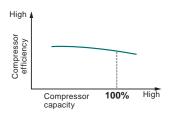
### DC inverter control

Efficiency is improved by mounting of new active filter module.



### Compact and high performance DC twin rotary compressor

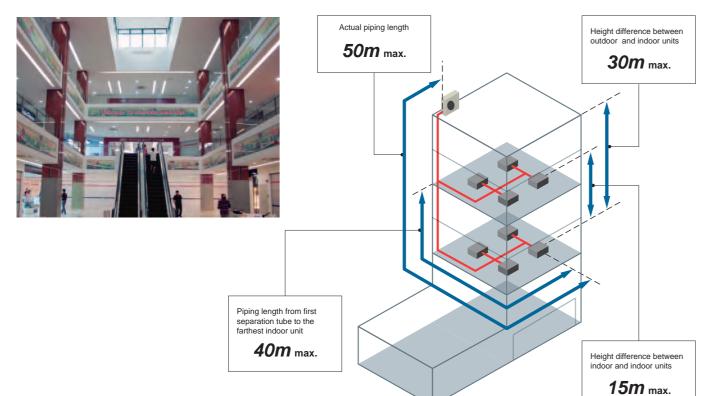
Efficiency in all load regions is good. Especially good performance from low to medium at normal operation.



### **Long Piping Length**

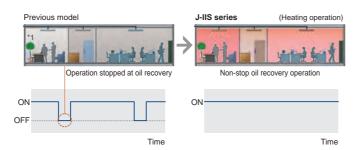
Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 80 m. This opens up new possibilities in system design.





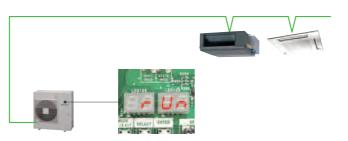
### Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.



### **Easier Installation**

Connection check function: Possible to confirm whether wiring connection and address setting are correct by a quick check run function.



- Display connected indoor unit numbers
- Duplicately set address number of indoor unit can be displayed

### **Specifications**

Rating capacity range		HP		4	5	6		
Model name				AJY040LCLAH	AJY045LCLAH	AJY054LCLAH		
Maximum conne	ectable indoo	r unit		7	8	8		
Power source		V/Ø/Hz	<u>z</u>	Single-phase, ~230V, 50Hz	Single-phase, ~230V, 50Hz	Single-phase, ~230V, 50Hz		
Consoity		Cooling	kW	12.1	14.0	15.1		
Capacity		Heating	KVV	13.6	16.0	16.5		
Input power		Cooling	kW	3.44	4.43	5.03		
iriput power		Heating	KVV	3.09	3.93	4.11		
EER		Cooling	w/w	3.52	3.16	3.00		
COP		Heating		4.40	4.07	4.01		
Airflow rate			m³/h	4,040	4,200	4,200		
Sound Pressure level /		Cooling	dB	51 / 67	53 / 69	54 / 70		
Power level		Heating (A)		54 / 68	55 / 69	56 / 70		
Heat exchanger	exchanger fin			Blue fin	Blue fin	Blue fin		
	Heig		mm	998	998	998		
Dimensions		Width n		970	970	970		
		Depth	mm	370	370	370		
Weight			kg	86	86	87		
Refrigerant	Type (Global	Warming Po	otential)	R410A (2,088)	R410A (2,088)	R410A (2,088)		
Remgerani	Charge		kg	4.0	4.0	4.0		
Connection		Liquid	mm	9.52	9.52	9.52		
Pipe diameter		Gas	1	15.88	15.88	15.88		
Total pipe length	otal pipe length			80	80	80		
Max. Height diff	erence		m	30	30	30		
Operation		Cooling	°C	-5 to 46	-5 to 46	-5 to 46		
Range		Heating		-20 to 21	-20 to 21	-20 to 21		

Note: Specifications are based on the following conditions.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

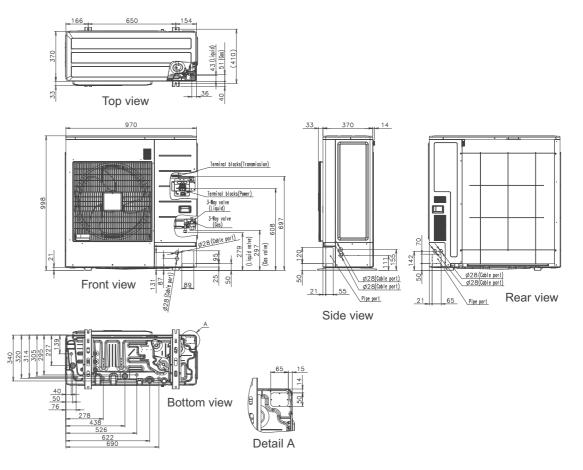
Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

The protective function may work when using it outside the operation range.

### **Dimensions**

Model: AJY040LCLAH / AJY045LCLAH / AJY054LCLAH

(Unit:mm)





12 Types and 66 models available to meet the requirements of any building design.

The AIRSTAGE indoor units were developed to be highly efficient, compact, low noise and to have user friendly operation. With a variety of indoor units and capacities available, Fujitsu General has an indoor unit to match any requirement which is easy to install and maintain.

Further, a variety of options are available to achieve an air conditioning environment that is more desirable from the user's perspective.

**Compact Cassette** 

Cassette

Mini Duct

Slim Duct / Slim Concealed Floor

**Medium Static Pressure Duct** 

**High Static Pressure Duct** 

**Large Airflow Duct** 

Floor / Ceiling

Ceiling

Wall mounted (EEV Internal / external )

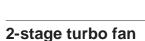
# **Compact Cassette**

Models

AUXB04GALH AUXB07GALH AUXB09GALH AUXB12GALH AUXB14GALH AUXB18GALH



that fits standard ceiling panel (600x600mm)



Compact size panel design

### High efficiency design by 2 stage structure

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



Previous turbo fan

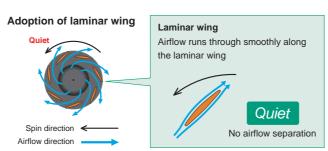
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.



### Quiet quality

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

Designed by CFD-analysis (fluid) simulations



### Improvement of the airflow distribution



Maintenance of fan motor and fan Maintenance of the fan motor and fan can be done easily after taking off the panel as the bell mouth of the fan can be removed easily.

A : Fan motor B : 2-stage turbo fan C : Bell-mouth D : Panel

2 Air filter : standard equipment

3 Adaptation of transparent drainage parts

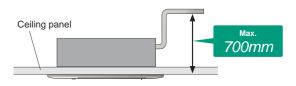
During installation, maintenance and operation,
the drain pump and kit can be checked easily.

### Compact design

Worlds first 24,000Btu model in the compact cassette category (Easy installation by taking off ceiling panel of 600 x 600 size)



### High lift drain pump



### High ceiling mode

The compact cassette can be installed up to a height of 3.0m (12/14/18/24).

	The merining beink!	iron floor to polling (m)
Model code	The maximum neight i	rom floor to ceiling (m)
Model code	Standard mode	High ceiling mode
04	2.7	_
07	2.7	_
09	2.7	_
12	2.7	3.0
14	2.7	3.0
18	2.7	3.0
24	2.7	3.0

### Optional parts

Air Outlet Shutter Plate : UTR-YDZB Insulation Kit for High Humidity : UTZ-KXGC Fresh Air Intake Kit : UTZ-VXAA

### **Specifications**

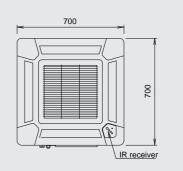
Model name				AUXB04GALH	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH			
Power source				230V ~, 50Hz									
Capacity		Cooling		1.1	2.2	2.8	3.6	4.5	5.6	7.1			
		Heating	kW	1.3	2.8	3.2	4.1	5.0	6.3	8.0			
Input power			W	23	25	25	29	35	36	84			
Airflow rate		High		530	540	550	600	680	710	1,030			
			m³/h	420/450*1	450	450	530	590	580	830			
				300/350*1	350	350	390	390	400	450			
Sound pressu	Sound pressure level			34	34	35	37	38	41	50			
			dB(A)	28/30*1	30	30	34	34	35	44			
		Low		21/25*1	25	25	27	27	27	30			
Dimensions (H	1 x W x D		mm	245 x 570 x 570									
Weight			kg	15 17									
Connection		Liquid (Flare)				ø9.52							
pipe diameter	Gas (Flare)		mm			ø15.88							
		Drain			ø25 (I.D) ; ø32 (O.D.)								
Cassette	Model n	ame		UTG-UFYC-W									
Grille	Dimensi	ons (H x W x D)	mm	50 x 700 x 700									
	Weight kg				2.6								

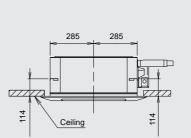
Note: Specifications are based on the following condition

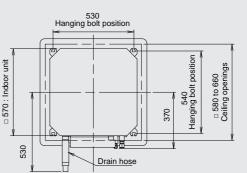
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].
\*1: This value is under cooling operation.

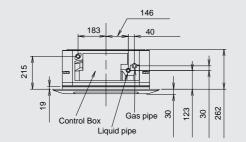
### Dimensions (Unit:mm)

Models: AUXB04 / AUXB07 / AUXB09 / AUXB12 / AUXB14 / AUXB18 / AUXB24









# Cassette

Models (Slim type)
AUXD18GALH
AUXD24GALH



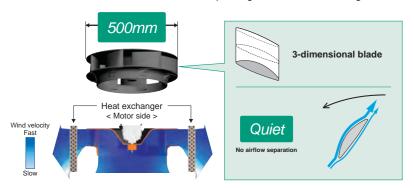
Models (Large type)
AUXA18GALH
AUXA24GALH
AUXA30GALH
AUXA34GALH
AUXA36GALH
AUXA45GALH
AUXA45GALH

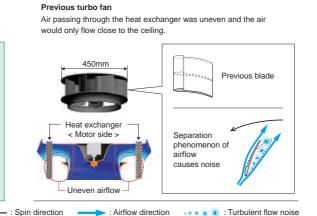


Powerful, wide airflow and quiet operation

### High efficiency turbo fan with 3-dimensional blade

High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.





### **Specifications**

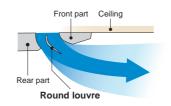
Model name				AUXD18GALH	AUXD24GALH	AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH	
Power source	е							230V ~, 50Hz					
Capacity		Cooling	1.14/	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0	
		Heating	kW	6.3	8.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0	
Input power			W	39	46	51	51	59	77	80	99	119	
Airflow rate		High		1,150	1,280	1,420	1,420	1,600	1,750	1,800	1,900	2,000	
		Med	m³/h	940	1,040	1,230	1,230	1,300	1,300	1,300	1,370	1,370	
		Low		870	870	1,100/1,000*1	1,100/1,000*1	1,100	1,100	1,100	1,100	1,100	
Sound pressure level		High		36	38	40	40	40	43	44	46	47	
		Med	dB(A)	30	33	36	36	38	38	38	39	39	
		Low		29	29	33/31*1	33/31*1	33	33	33	33	33	
Dimensions (	(H x W x D	)	mm	246 x 840 x 840					288 x 840 x 840				
Weight			kg	2	2				27				
Connection		Liquid (Flare)						ø9.52					
pipe diamete	er	Gas (Flare)	mm		ø15.88						ø19.05		
		Drain					ø25	(I.D.) ; ø32 (C	).D.)				
Cassette	Model n	ame		UTG-UGYA-W									
Grille	Dimensi	ons (H x W x D)	mm		50 x 950 x 950								
	Weight		kg					5.5					

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V]. \*1: This value is "cooling operation / heating operation".

### Improvement of the airflow distribution

The louvre design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.



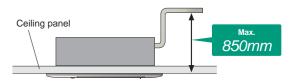


Much less temperature irregularity happens by spreading airflow widely

# Adjustment of hanger position is possible after installation



### High lift drain pump

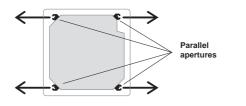


### High ceiling mode

This cassette can be installed up to a height of 4.2m (36/45/54).

	The maximum height from floor to ceiling (m)								
Model code	Standard mode	High ceiling mode							
18	3.0	3.5							
24	3.0	3.5							
30	3.2	3.6							
34	3.2	3.6							
36	3.2	4.2							
45	3.2	4.2							
54	3.2	4.2							

### One way aperture installation



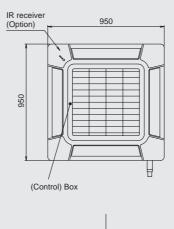
### Optional parts

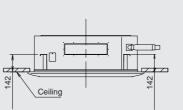
IR Receiver Unit: UTY-LRHYB1
Air Outlet Shutter Plate: UTR-YDZK
Panel Spacer: UTG-BKXA-W
Insulation Kit for High Humidity: UTZ-KXRA
Wide Panel: UTG-AKXA-W
Fresh Air Intake Kit: UTZ-VXRA

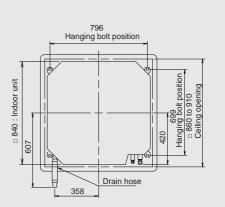
Dimensions (Unit:mm) ( ):AUXD18/AUXD24

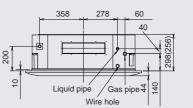
Models: AUXD18 / AUXD24 (Slim type)

AUXA18 / AUXA24 / AUXA30 / AUXA34 / AUXA36 / AUXA45 / AUXA54 (Large type)









# Mini Duct

Models (With drain pump)

ARXK07GCLH NEW **ARXK09GCLH NEW ARXK12GCLH NEW ARXK14GCLH NEW ARXK18GCLH NEW ARXK24GCLH NEW** 

Compact & Slim Duct indoor unit for creating comfortable living space



# Optimum design in harmony with interior decoration Thin and short-depth body makes the clipped ceiling design simple.

### **Specifications**

Model name			ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH			
Power source			230V ~, 50Hz								
Composite.	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1			
Capacity	Heating	KVV	2.8	3.2	4.0	5.0	6.3	8.0			
Input power		W	28	28	35	66	73	80			
	High		460	460	550	760	930	1,160			
Airflow rate	Me-Hi		440	440	520	660	840	1,060			
	Med	m³/h	420	420	480	560	740	960			
Airliow rate	Lo-Hi		400	400	450	490	640	860			
	Low		370	370	410	410	540	750			
	Quiet		340	340	340	340	470	610			
Static pressure range			0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50			
Standard static pressur	e	Pa	10	10	10	15	15	15			
	High		26	26	29	34	33	32			
	Me-Hi		25	25	27	31	30	30			
0	Med	15.4	24	24	26	28	28	28			
Sound pressure level	Lo-Hi	dB(A)	23	23	25	26	26	27			
	Low		22	22	24	24	24	25			
	Quiet		21	21	22	22	22	22			
Dimensions (H x W x D	)	mm		198 x 7	00 x 450		198 x 900 x 450	198 x 1,100 x 450			
Weight		kg	15	5.5	1	6	19	22.5			
Connection	Liquid (Flare)			ø6	5.35		ø9	1.52			
pipe diameter	Gas (Flare)	mm		ø1:		ø15.88					
	Drain				ø25 (I.D.) ;	ø32 (O.D.)					

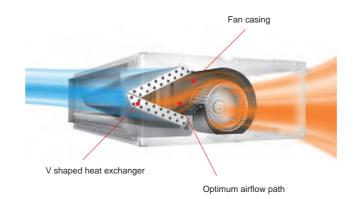
Note: Specifications are based on the following conditions.

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Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

### High performance & Low noise design

Drastic low noise operation and high performance can be achieved by V-shaped heat exchanger structure and optimum airflow design.



### 6-speed control\*

Multistep airflow speed control allows this model to install in a quiet location.



6-Step Speed



\* Compatible Remote Controller is as follows: UTY-RNRYZ1/UTY-RLRY/UTY-DCGY/UTY-DTGYZ1/UTY-ALGX/UTY-APGX

### Easy drain design even at narrow ceiling

Drainage to the distant drain port is possible.

### Drain pump built-in



Drain design is easy even at narrow ceiling.

### **Optional parts**

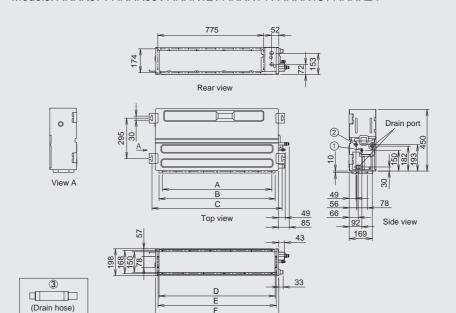
Remote Sensor Unit: UTY-XSZX IR Receiver Unit: UTB-YWC

Auto Louver Grille Kit: UTD-GXTA-W (for ARXK07/09/12/14GCLH)

UTD-GXTB-W (for ARXK18GCLH) UTD-GXTC-W (for ARXK24GCLH)

### Dimensions (Unit:mm)

Models: ARXK07 / ARXK09 / ARXK12 / ARXK14 / ARXK18 / ARXK24



Front view

- ① Refrigerant pipe flare connection (Liquid)
- ② Refrigerant pipe flare connection (Gas)
- 3 Drain hose connection

	ARXK07-14	ARXK18	ARXK24
Α	P100×6=600	P100×8=800	P100×10=1000
В	650	850	1050
С	752	952	1152
D	650	850	1050
Е	665	864	1064
F	700	900	1100

# Slim Duct / Slim Concealed Floor

Models (With drain pump)

ARXD04GALH ARXD07GALH ARXD09GALH ARXD12GALH ARXD14GALH ARXD18GALH ARXD24GALH

Slim design and wide range of static pressure for flexible installation.

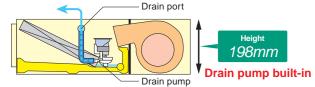






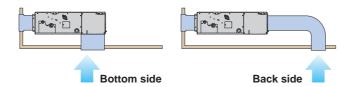
### Slim design

This model is slim design, it can install at the place where a ceiling is narrow.

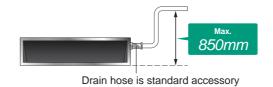


### Air-intake

Air intake direction can be selected to match the installation site.



### High lift drain pump



# Selectable with a wide range of static pressure

By using DC fan motor, it is possible to change of static pressure range 0 to 90Pa.

The change of static pressure range is possible by remote controller.



### Flexible installation

Ceiling concealed







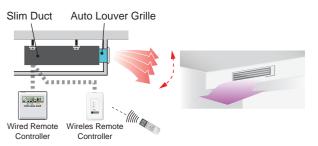




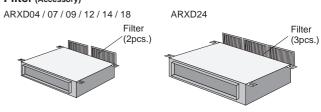


### **Auto Louver Grille Kit (Option)**

Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.



### Filter (Accessory)



### **Optional parts**

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

Auto Louver Grille Kit: UTD-GXTA-W (for ARXD04/07/09/12/14GALH)

UTD-GXTB-W (for ARXD18GALH) UTD-GXTC-W (for ARXD24GALH)

### **Specifications**

Model name			ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH		
Power source			230V ~, 50Hz								
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1		
	Heating	KVV	1.3	2.8	3.2	4.0	5.0	6.3	8.0		
Input power		W	38	44	50	54	92	83	122		
Airflow rate High			510	550	600	600	800	940	1,330		
	Med	m³/h	400/470*1	490	550	510	710	840	1,240		
Low			320/440*1	440	480	450	610	750	1,100		
Static pressure range	Static pressure range		0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50		
Standard static pressur	е	Pa	25	25	25	25	25	25	25		
Sound pressure level	High		26	28	29	30	34	34	35		
	Med	dB(A)	21/25*1	25	26	27	32	32	32		
	Low		20/22*1	22	24	24	28	28	29		
Dimensions (H x W x D	)	mm			198 x 700 x 620			198 x 900 x 620	198 x 1,100 x 620		
Weight	Weight			17		1	8	22	26		
Connection	Liquid (Flare)				ø6.35			ø9.52			
pipe diameter	Gas (Flare)	mm			ø12.70			ø15.88			
	Drain				Ø	25 (I.D.) ; ø32 (O.[	D.)				

Note: Specifications are based on the following conditions.

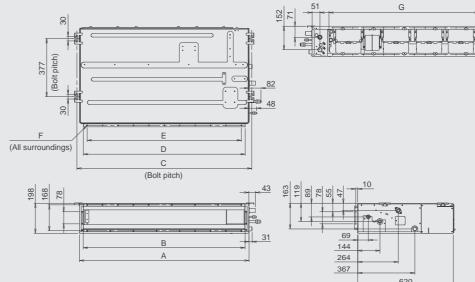
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V]. \*1: This value is under cooling operation.

### Dimensions (Unit:mm)

Models: ARXD04 / ARXD07 / ARXD09 / ARXD12 / ARXD14 / ARXD18 / ARXD24

\*Service accessibility must be allowed for when installing the product.

Please consult the installation manual for the necessary service access size.



	ARXD04-14	ARXD18	ARXD24
А	700	900	1100
В	650	850	1050
С	734	934	1134
D	650	850	1050
Е	P100x6=600	P100x8=800	P100x10=1000
F	18xØ5	22xØ5	26xØ5
G	574	774	974

# **Medium Static Pressure Duct**

Models

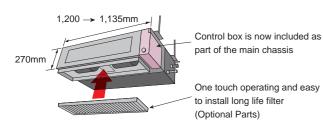
**ARXA24GBLH** ARXA30GBLH **ARXA36GBLH ARXA45GBLH** 

Low energy consumption by DC fan motor. Selectable with a wide range of static pressure.



### 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 up to 270mm, Further space savings have been achieved by mounting the electrical control box internally inside the chassis.



### Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.





24 model

30 / 36 / 45 model

### Selectable with a wide range of static pressure

It is possible to change of static pressure range 0 to 150Pa.



### Can be installed for various location

It can be installed in such locations as high-rise condominiums by low static pressure design.



It can also be installed in wide spade when high static pressure is required, such as for offices.



### Easy setting by using remote controller

The change of static pressure range is possible by remote controller

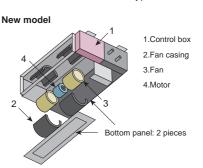


### Two-direction drain piping



### **Easy maintenance**

See below for the case of rear suction type

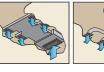


The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.

### Installation styles

### **Embedded in Ceiling**

### **Hanging from Ceiling**









### **Optional parts**

Remote Sensor Unit: UTY-XSZX Long Life Filter: UTD-LF25NA Flange (Square): UTD-SF045T

Flange (Round): UTD-RF204 IR Receiver Unit: UTB-YWC Drain Pump Unit: UTZ-PX1NBA

### **Specifications**

Model name			ARXA24GBLH	ARXA30GBLH	ARXA36GBLH	ARXA45GBLH				
Power source			230V ~, 50Hz							
Capacity	Cooling	kW	7.1 9.0		11.2	12.5				
	Heating	KVV	8.0	10.0	12.5	14.0				
Input power		W	94	108	194	240				
Airflow rate	High		1,280	1,410	1,840	1,970				
	Med	m³/h	990 1,280		1,600	1,860				
	Low		840 1,150 1,470		1,470	1,640				
Static pressure range		Pa	0 to 150	0 to 150	0 to 150	0 to 150				
Standard static pressur	е	Ра	40	50	50	60				
Sound pressure level	High		31	34	37	41				
	Med	dB(A)	27	32	35	38				
	Low		23	29	33	36				
Dimensions (H x W x D)		mm		270 x 1,1	35 x 700					
Weight		kg	36		40					
Connection	Liquid (Flare)			ø9.	.52					
pipe diameter	Gas (Flare)	mm	ø15	5.88	ø19.05					
	Drain			ø25 (I.D.) ;	ø32 (O.D.)					

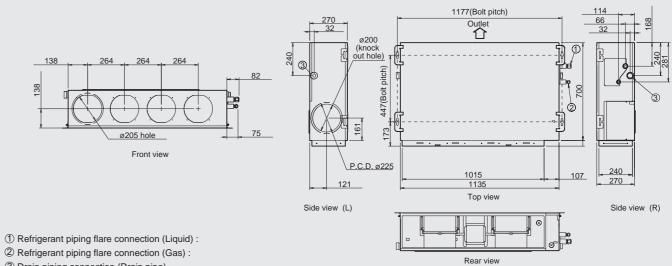
Note: Specifications are based on the following conditions.

Cooling : Indoor temperature of  $27^{\circ}CDB$  /  $19^{\circ}CWB$ , and outdoor temperature of  $35^{\circ}CDB$  /  $24^{\circ}CWB$ . Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

### Dimensions (Unit:mm)

Models: ARXA24 / ARXA30 / ARXA36 / ARXA45

\*Service accessibility must be allowed for when installing the product. Please consult the installation manual for the necessary service access size



3 Drain piping connection (Drain pipe)

# **High Static Pressure Duct**

Models

**ARXC36GBTH ARXC45GATH** ARXC60GATH



Models

ARXC72GBTH ARXC90GBTH



Models

**ARXC96GATH NEW** 

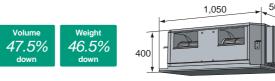
These indoor units allow for high airflow quantities



### Easy installation (Compact size & Lightweight)

Models: ARXC36

A compact size and lightweight indoor unit has been developed by reducing the basic chassis and the overall material weight.

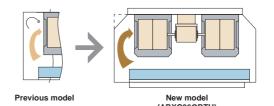


ARXC36GBTH: 40kg (unit: mm)

### Low noise

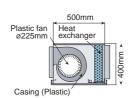
### Models: ARXC36 / ARXC45 / ARXC60

Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



### ARXC36GBTH: Plastic fan [42dB(A)]

(At 100Pa: Actual noise measurement value



### **Static pressure selection**

Models: ARXC36/ARXC72/ARXC90/ARXC96



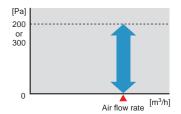








By using DC fan motor, it is possible to change static pressure range from 0 to 200Pa (ARXC36) / 300Pa (ARXC72 / 90 / 96).



### Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.



ARXC72 / 90 / 96

### **Optional parts**

Long-Life Filter : UTD-LF60KA (For ARXC36 / 45 / 60)

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

### **Specifications**

Model name			ARXC36GBTH	ARXC45GATH	ARXC60GATH*	ARXC72GBTH*	ARXC90GBTH*	ARXC96GATH*		
Power source			230V ~, 50Hz							
Capacity	Cooling	kW	11.2 12.5 18		18.0	22.4	25.0	28.0		
	Heating	KVV	12.5	14.0	20.0	25.0	28.0	31.5		
Input power		W	207	715	730	681	819	838		
Airflow rate	High		1,990	3,500	3,500	3,900	4,300	4,850		
	Med	m³/h	1,680	3,000	3,000	3,300	4,000	4,250		
	Low		1,330 2,460 2,460 3,000		3,500	3,600				
Static pressure range		- Pa	0 to 200	100 to 250	100 to 250	0 to 300	0 to 300	0 to 300		
Standard static pressure		Ра	100	100	100	150	150	150		
Sound pressure level	High		42	49	49	47	48	48		
	Med	dB(A)	36	45	45	43	46	45		
	Low		32	42	42	40	44	42		
Dimensions (H x W x D)		mm		400 x 1,050 x 500			450 x 1,587 x 700			
Weight		kg	40	4	16	84	84	105		
Connection	Liquid			ø9.52 (Flare)		ø12.70 (Brazing)				
pipe diameter	Gas	mm		ø19.05 (Flare)		ø22.22 (Brazing)				
	Drain				VP25 [ø25 (I.D	; ø32 (O.D.)]				

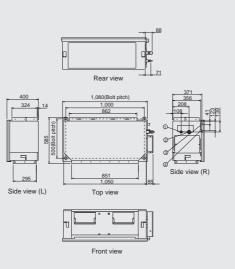
Note: Specifications are based on the following conditions.

\*: ARXC60/72/90/96G cannot be connected to J-III series.

Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

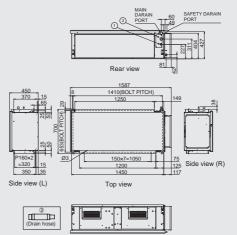
### Dimensions (Unit: mm)

### Models: ARXC36 / ARXC45 / ARXC60



- 1 Refrigerant piping flare connection (Liquid)
- ② Refrigerant piping flare connection (Gas)
- ③ Drain piping connection

Models: ARXC72 / ARXC90

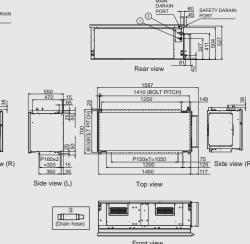


① Refrigerant pipe flare connection (Liquid)

② Refrigerant pipe flare connection (Gas)

3 Drain hose

Models: ARXC96



1 Refrigerant pipe flare connection (Liquid)

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- ② Refrigerant pipe flare connection (Gas)
- 3 Drain hose

# **Large Airflow Duct**

Models

ARXN18GATH ARXN24GATH ARXN30GATH ARXN34GATH

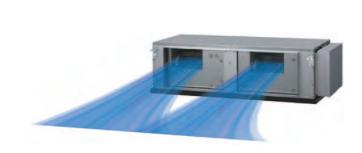
ARXN34GATH ARXN36GATH ARXN45GATH

These indoor units allow for high airflow quantities



### Large airflow volume

It can be installed in places such as early replacement of air required by large airflow volume.





# Selectable with a wide range of static pressure

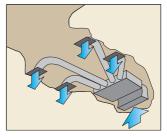


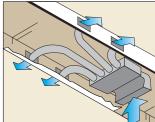
(30 / 34class)



(36 / 45class)

### Installation styles





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### **Optional parts**

Remote Sensor Unit : UTY-XSZX

### **Specifications**

Model name			ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH		
Power source			230V ~, 50Hz							
Capacity	Cooling	kW	5.6 7.1 9.0		10.0	11.2	12.5			
	Heating	NVV	6.3	8.0	10.0	11.2	12.5	14.0		
Input power		W	154	205	306	432	572	572		
Airflow rate	High		2,280	2,640	3,200	3,720	4,120	4,120		
	Med	m³/h	_	_	_	_	_	_		
	Low		_	_	_	_	_	_		
Static pressure range	Static pressure range		50 to 100	50 to 150	50 to 250	50 to 250	50 to 300	50 to 300		
Standard static pressure		- Pa	50	50	50	50	60	60		
Sound pressure level	High		35	37	40	43	45	45		
	Med	dB(A)	_	_	_	_	_	_		
	Low		_	_	_	_	_	_		
Dimensions (H x W x D)		mm			450 x 1,5	587 x 700				
Weight		kg			8	34				
Connection	Liquid				ø9.52	(Flare)				
pipe diameter	Gas	mm		ø15.88	(Flare)		ø19.05 (Flare)			
	Drain				VP25[ø25(I.[	D.); ø32(O.U.)]				

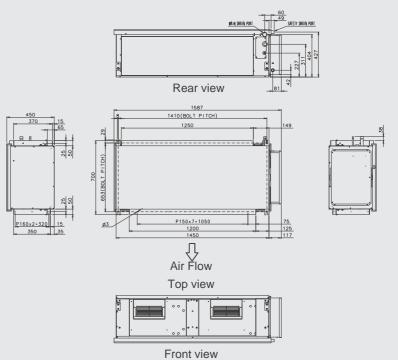
Note: Specifications are based on the following conditions.

Large Airflow Duct can be connected to V-III series only.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

### Dimensions (Unit:mm)

Models: ARXN18GATH / ARXN24GATH / ARXN30GATH / ARXN34GATH / ARXN36GATH / ARXN45GATH



82 Front view

# Floor / Ceiling

Models

ABYA12GATH ABYA14GATH ABYA18GATH ABYA24GATH

The slim and lightweight design allow the unit to be suspended from the ceiling or installed on the floor.

This type suits many room designs



Floor standing



### Flexible installation

### **Example for floor installation**

Floor console



### Example for ceiling installation

Under ceiling



### Double auto swing

A combination of up/down and right/left directional swing allows three-dimensional air direction control.

RIGHT and LEFT SWING UP and DOWN SWING

### High power DC fan motor

- High power
- Wide rotation range
- High efficiency



4 steps selectable

### Super vane

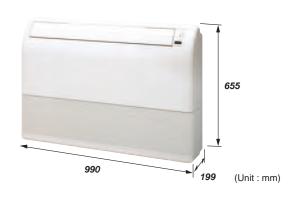
Double Louvre Super vane with newly developed special configuration boosts airflow sending cool air quickly to every corner of the room.

### **Auto-closing louvre**

When operation is stopped, the louvres will automatically close. (This function is available on all non-ducted models.)

### Compact design

Symmetrical, slim and compact design.



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### **Specifications**

Model name			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH				
Power source			230V ~, 50Hz							
Capacity	Cooling	kW	3.6	4.5	5.6	7.1				
	Heating	NVV	4.0	5.0	6.3	8.0				
Input power		W	30	42	74	99				
Airflow rate High			660	780	1,000	1,000				
	Med	m³/h	570	640	720	820 680				
	Low		490	550	580					
Sound pressure level	High		36	40	46	47				
	Med	dB(A)	32	36	39	42				
	Low		28	34	35	37				
Dimensions (H x W x D)		mm	199 x 990 x 655							
Weight		kg	25	26	26	27				
Connection	Liquid (Flare)		ø6	i.35	ø9.52					
pipe diameter	Gas (Flare)	mm	ø12	2.70	ø15.88					
	Drain			ø25 (I.D.) ;	ø25 (I.D.) ; ø32 (O.D.)					

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

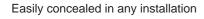
Voltage: 230 IVI.

# Dimensions (Unit: mm) Models: ABYA12 / ABYA14 / ABYA18 / ABYA24 1. Refrigerant piping flare connection (Liquid) 2. Refrigerant piping flare connection (Gas) 3. Drain piping connection

# Ceiling

Models

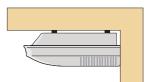
ABYA30GATH ABYA36GATH ABYA45GATH ABYA54GATH





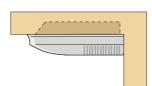
### Installation

### Open



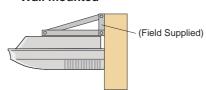
General installation pattern which suspends the indoor unit from the ceiling.

### Concealed



Installation pattern where part of the indoor unit is embedded into the ceiling.

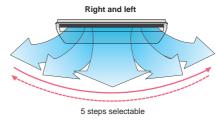
### Wall mounted

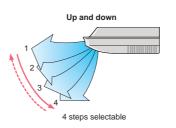


Installation which fixes the indoor unit to the wall by the use of wall brackets (Field supplied). This type of installation can be used when the ceiling space is insufficient.

### Double auto swing and wide airflow

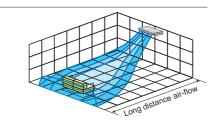
Auto airflow direction and auto swing





### Long airflow

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

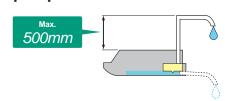


# Slim & Compact design

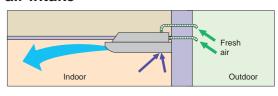
# Hight 240mm

### High lift drain pump

Optional drain pump unit allows flexible installation design.



### Fresh air intake



### High power DC fan motor

- High power
- Wide rotation range
- High efficiency



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### Optional parts

Drain Pump Unit: UTR-DPB24T Flange: UTD-RF204

### **Specifications**

Model name			ABYA30GATH	ABYA36GATH	ABYA45GATH	ABYA54GATH				
Power source			230V ~, 50Hz							
Capacity	Cooling	kW	9.0	11.2	12.5	14.0				
	Heating	NVV	10.0	12.5	14.0	16.0				
Input power		W	66	85	131	180				
Airflow rate High			1,630	1,690	2,010	2,270				
	Med	m³/h	1,370	1,400	1,600	1,780				
	Low		1,140	1,170	1,230	1,280				
Sound pressure level	High		42	45	48	51				
	Med	dB(A)	38	38	42	45				
	Low		33	34	35	36				
Dimensions (H x W x D)		mm	240 x 1,660 x 700							
Weight		kg	46		48					
Connection	Liquid (Flare)		ø9.52		ø9.52					
pipe diameter	Gas (Flare)	mm	ø15.88 ø19.05							
	Drain			ø25 (I.D.) ;	ø32 (O.D.)					

Note: Specifications are based on the following conditions.

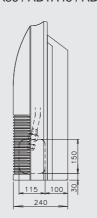
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

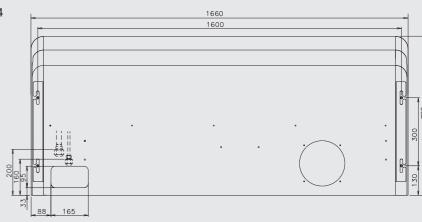
 $Heating: Indoor temperature of 20^{\circ}CDB / (15^{\circ}CWB), and outdoor temperature of 7^{\circ}CDB / 6^{\circ}CWB. \\ Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.$ 

Voltage: 230 [V].

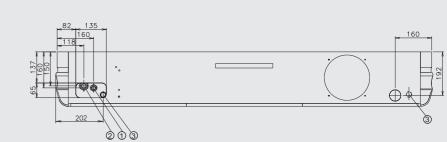
### Dimensions (Unit:mm)

Models: ABYA30 / ABYA36 / ABYA45 / ABYA54





- ① Refrigerant piping flare connection (Liquid)
- ② Refrigerant piping flare connection (Gas)
- 3 Drain piping connection



# Wall Mounted

Models (EEV internal model) Models (EEV external model)

ASYA04GACH ASYE04GACH ASYA07GACH ASYA09GACH ASYE09GACH ASYA12GACH ASYE12GACH ASYA14GACH ASYE14GACH



Compact and Stylish design indoor

### Low sound level design

Low sound mode of 19dB (A) is realized by DC fan motor mounting and PAM inverter control.





\* This sound level is the same level as the rustling

### **Specifications**

Model name			ASYA04GACH	ASYA07GACH	ASYA09GACH	ASYA12GACH	ASYA14GACH	ASYE04GACH	ASYE07GACH	ASYE09GACH	ASYE12GACH	ASYE14GACH
Power source				2	230V ~, 50H	Z		230V ~, 50Hz				
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	1.1	2.2	2.8	3.6	4.5
	Heating	IX V V	1.3	2.8	3.2	4.1	5.0	1.3	2.8	3.2	4.1	5.0
Input power		W	13	17	18	22	34	12	15	16	21	34
Airflow rate	High		450	490	500	560	670	450	490	500	560	680
	Med	m³/h	370/440*1	450	450	480	490	370/440*1	450	450	480	490
	Low		320/420*1	370/420*1	370/420*1	420	420	300/420*1	370/420*1	370/420*1	420	420
Sound pressure	High		33	35	36	39	44	32	34	35	38	43
level	Med	dB(A)	27/32*1	33	33	35	37	26/31* <sup>1</sup>	32	32	34	35
	Low		22/31*1	27/31*1	27/31*1	31	32	19/30*1	26/30*1	26/30*1	30	30
Dimensions (H x W x D)		mm		2	75 x 790 x 2	15		275 x 790 x 215				
Weight		kg			9			9				
	Liquid (Flare)				ø6.35			ø6.35				
pipe diameter	Gas (Flare)	mm			ø12.70					ø12.70		
	Drain		ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)					ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)				
EV Kit (option)					_			UTR-EV09XB UTR-EV14XB				V14XB

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

Voltage: 230 [V].
\*1: This value is under cooling operation.

### Compact size

### Powerful output even compact design

Though the indoor unit is compact, it features a large, high pressure cross fan (90mm diameter) in a centre mounted configuration and a Lambda type heat exchanger to provide plenty of power.



# 790mm

### Clean filters

High quality air conditioning by incorporation of high performance filter.



Ion Deodorization Filter

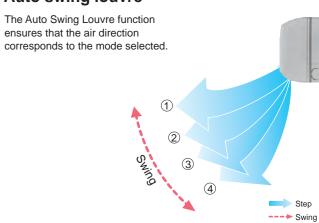
The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.



Apple-catechin Filter

Apple-catechin filter uses static electricity to clean fine particles and dust in the air.

### **Auto swing louvre**



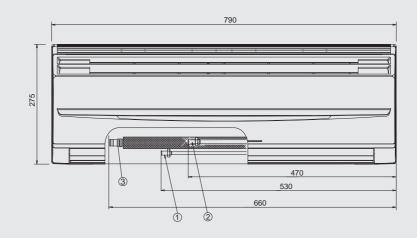
### **Easy maintenance**

Easy maintenance has been realized as the front panel can removed for easy access.

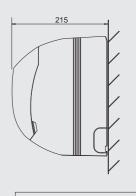


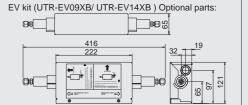
### Dimensions (Unit:mm)

Models: ASYA04 / ASYA07 / ASYA09 / ASYA12 / ASYA14 ASYE04 / ASYE07 / ASYE09 / ASYE12 / ASYE14



- ① Refrigerant pipe flare connection (Liquid)
- ② Refrigerant pipe flare connection (Gas)
- ③ Drain piping connection





# Wall Mounted

Models

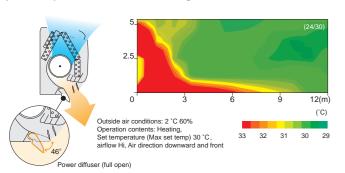
ASYA18GACH ASYA24GACH ASYA30GACH

Simple & Elegant Appearance Design

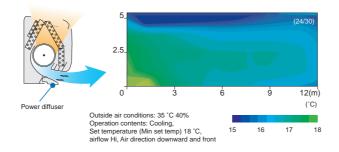


### More comfort airflow by adopting power diffuser

"Vertical airflow" provides powerful floor level heating

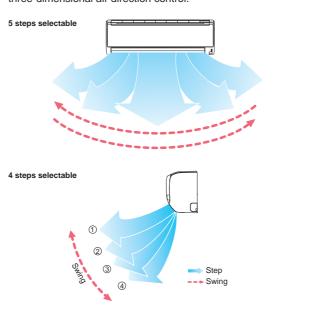


"Horizontal airflow" does not blow cool air directly at the occupants in the room



### Double auto swing

A combination of up/down and right/left directional swing allows three-dimensional air direction control.

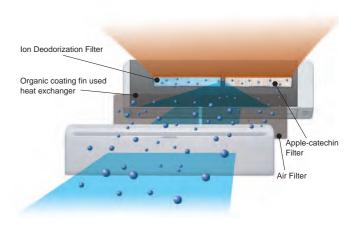


### Compact & Slim design

By using DC fan motor, compact design is realized.



### Air conditioner filter features



High quality air conditioning by incorporation of high performance 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 uses static electricity to clean fine particles and dust in the air.

### Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

### **Specifications**

Model name			ASYA18GACH	ASYA24GACH	ASYA30GACH
Power source				230V ~, 50Hz	
Capacity	Cooling	kW	5.6	7.1	8.0
	Heating	KVV	6.3	8.0	9.0
Input power		W	32	60	91
	High		840	1,100	1,240
Airflow rate	Med	m³/h	770	910	980
	Low		690	730	770
	High	dB(A)	41	48	52
Sound pressure level	Med		39	43	45
	Low		35	35	35
Dimensions (H x W x D)		mm	320 x 998 x 228		
Weight kg		kg	15		
Connection	Liquid (Flare)		ø9.52		
pipe diameter	Gas (Flare)	mm		ø15.88	
	Drain			ø12 (I.D.) ; ø16 (O.D.)	

Note: Specifications are based on the following conditions.

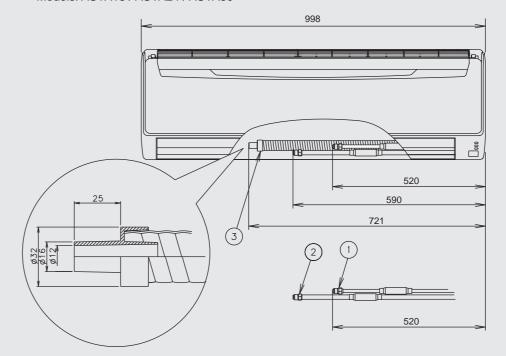
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

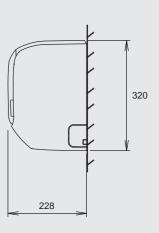
Heating: Indoor temperature of 27 CDB / 19 CWB, and outdoor temperature of 32 CDB / 24 CWB. Heating: Indoor temperature of 7 CDB / 6 CWB. Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

Voltage: 230 [V].

### Dimensions (Unit:mm)

Models: ASYA18 / ASYA24 / ASYA30





① Refrigerant piping flare connection (Liquid)

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- ② Refrigerant piping flare connection (Gas)
- 3 Drain hose connection

# User friendly control system provides individual control to centralized control



Office 01
Mode Set Temp.
Fri 10:00AN
Mode Set Temp.
Fan
Auto
Room Temp. 26.0°C
Status Menu

6/1

The AIRSTAGE control system can perform air conditioning control of individual room, centralized control by floor or by building, or centralized energy saving air conditioning control for large buildings.

A variety of air conditioning management schemes are available to match the application, such as linking with the building control system, linking with a single split models, and using various interfaces.

SYSTEM OVERVIEW

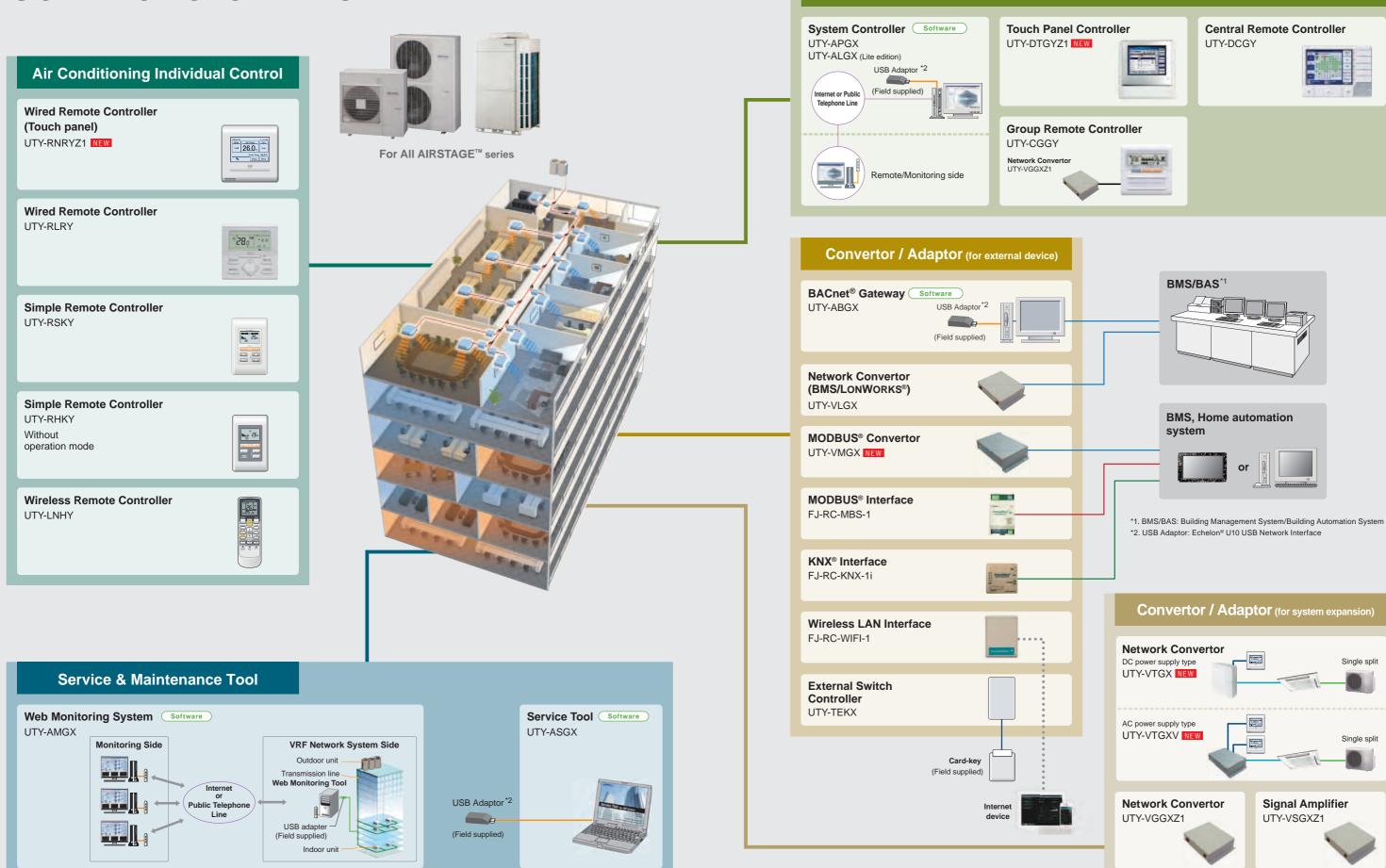
INDIVIDUAL CONTROLLER

**CENTRALIZED CONTROLLER** 

**CONVERTOR / ADAPTOR** 

**SERVICE & MAINTENANCE TOOL** 





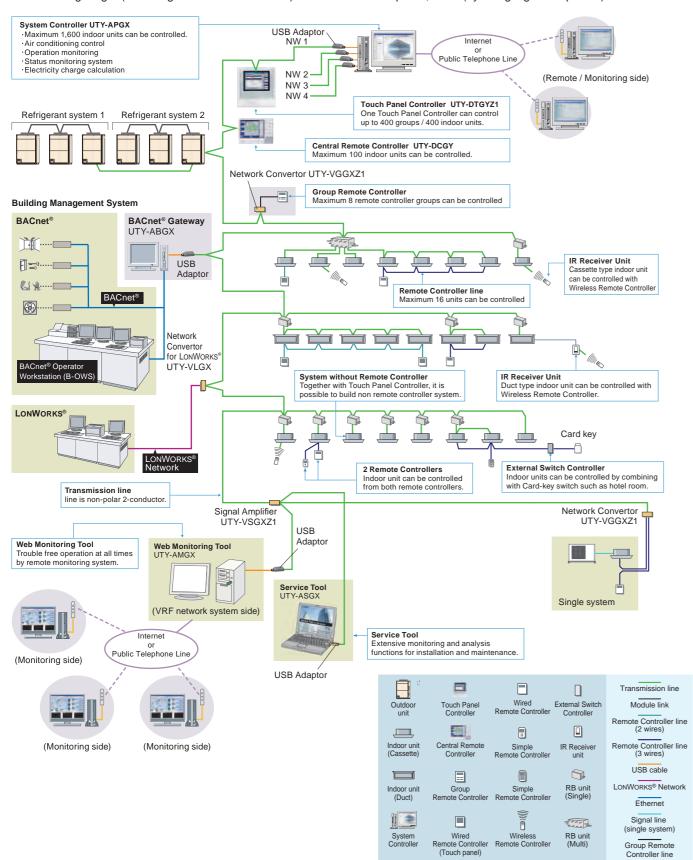
**Air Conditioning Centralized Control** 

Single split

# Wiring system



- Wiring construction of the control system is made of power source wiring, transmission wiring and remote controller wiring.
- Total wiring length (total length of transmission line) can be extended up to 3,600m (by using signal amplifiers).



# Comparison table of Controllers

Iten	n		Wired Remote Controller (Touch panel)	Wired Remote Controller	Simple Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller Lite Software	System Controller Software
Mod	del name		UTY-RNRYZ1	UTY-RLRY	UTY-RSKY	UTY-RHKY	UTY-LNHY	UTY-CGGY	UTY-DCGY	UTY-DTGYZ1	UTY-ALGX	UTY-APGX
Max	x. controllable rem	ote controller groups	1	1	1	1	1	8	100	400	400	1600
Max	k. controllable indo	or units	16	16	16	16	16	128	100	400	400	1600
Max	x. controllable grou	IDS	_	_	_	_	_	_	16	400	400	1600
	On / Off		•	•	•	•	•	•	•	•	•	•
Ę	Operation mode	settina	•	•	•	_	•	•	•	•	•	•
ctic	Fan speed settin		•	•	•	•	•	•	•	•	•	•
control function	Room temp. sett		•	•	•	•	•	•		•	•	
ᅙ					_			_			•	•
ont	Room temp. set	point illilitation			•	_	_	_				
	Test operation					_		_			_	_
nin		ection flap setting			_	_		_				
Air conditioning	Right/left air dire	ction flap setting	•	•	_	_	•	-	•	•	•	•
puo	Group setting		_	_	_	_	_	-	•	•	•	•
5	RC prohibition		_	_	-	_	_	-	•	•	•	•
Ā	Anti freeze settir	ng	•	_	-	_	_	-	•	•	•	•
	Economy mode	setting	•	•	_	_	•	_	•	•	•	•
	Error		•	•	•	•	_	•	•	•	•	•
	Defrosting		•	•	•	•	_	_	•	•	•	•
	Current time		•	•	_	_	•	•	•	•	•	•
	Day of week		•	•	_	_	_	•	_	•	•	•
	R.C. prohibition		•	•	•	•	_	•	•	•	•	•
ع ک	Cooling/heating priority		•	•	•	•	_	•	•	•	•	•
Display	Address display		•	•	•	•	_	•	•	•	•	•
ق	Room temp		•	_	_	_	_	_	_	_	_	_
	Multi language		•	_	_	_	_	_	•	•	•	•
	Summer time		•	_	_	_	_	_	•	•	•	•
	Name registratio	n	•	_	_	_	_	_	•	•	•	•
	Backlight		•	_	•	•	_	_	•	•	_	_
	2D floor layout /	3D building display	_	_	_	_	_	_	_	_	_	•
		Period	Week	Week	_	_	_	Week	Week	Year	Year	Year
	Schedule timer	On/off, Temp, Mode, Times per day	8	4	_	_	_	4	20	20	144	144
	On/off timer		•	•	_	_	•	_	_	_	_	_
Timer	Sleep timer		_	_	_	_	•	_	_	_	_	_
Ē	Program timer		_	_	_	_	•	_	_	_	_	_
	Auto off timer		•	•	_	_	_	_	_	_	_	_
	Day off		•	•	_	_	_	_	•	•	•	•
		r setting (Minutes)							10			
			10 • 30	30	30	30	5	10		10	10	10
	Status monitorin		_	_	_	_	_	-	•	•	•	•
	Electricity charge	e apportionment	_	_	_	_	_	_	_	0	0	•
	Error history		•	•	•	•	_	•	• **	• *2	•	•
lor	Emergency stop		_	_	_	_	_	_	<b>●</b> *2	●*2	_	_
Control	Remote management		_	_	-	_	_	-	_	•	0	•
ပ	Energy saving m	nanagement	_	_	-	_	_	_	_	_	0	0
	E-mail notification	n for malfunction	-	_	-	-	_	-	_	•	•	•
	Key lock		Child lock	Child lock	_	_	_	Child lock	Password setting	Password setting	Password setting	Password setting

<sup>\*1 &</sup>quot;Operation mode" setting is not available for this model.

: Supported ( ) : Optional function: Not supported yet

<sup>\*2</sup> This function is available only through external input control.

# Wired Remote Controller (Touch Panel)

Max. controllable

16
indoor units

### **UTY-RNRYZ1 NEW**

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

- · Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer(ON/OFF,Temp.,Mode)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 12 different languages (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Greek, Portuguese, Turkish and Dutch)

### **Functions**

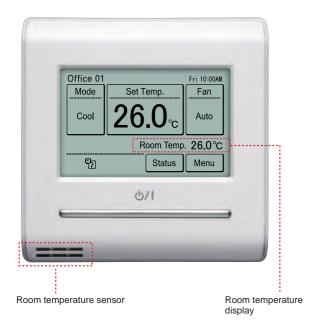
### High performance and compact size

 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 enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.



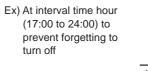
### Various energy saving control

### Auto OFF Timer

• The indoor unit automatically turns off after a set time has passed.

∞ | 26.0<sub>℃</sub> |

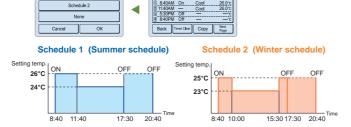
• The time interval for which auto off works can be set.





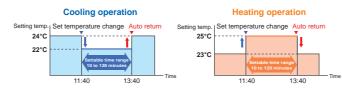
### 2 schedules Weekly Timer

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



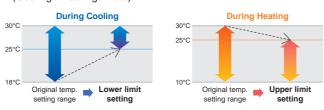
### Set Temperature Auto Return

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



### Set Temperature Upper and Lower Limit Setting

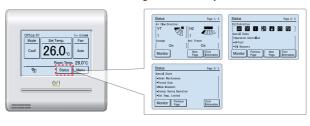
 The set temperature range can be set for each operation mode. (Cooling / Heating / Auto)



### Various convenient functions

### Displays setting status and Limitations

• The remote controller settings can be easily checked



### Summer Time display

 This function can be set easily from Menu screen



### Child lock

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



### Name Registration

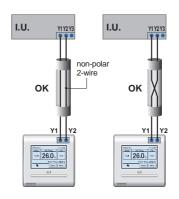
 Remote controller names can be registered in the remote controller screen.

This makes it easy to identify the indoor unit you want to control in the room.

### Simplified installation

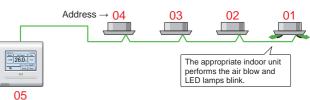
### Uses non-polar 2-wire type

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



### Auto Address Setting/Setting Position Notification

- Reduce errors and install time compared with the current specification Rotary SW
- When will be set remote controller groups, can also be set automatically new Wired remote controller address
- After auto address setting of new wired remote controller groups, what number can also confirm addresses



### **Easy Maintenance**

### **Error History Display**

- The errors that occur in the indoor unit or remote controller are saved as a history.
- A maximum of 32 error incidents can be saved.



### Specifications

Model name	UTY-RNRYZ1
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 20.4
Weight (g)	220

DC12V is supplied by the indoor unit

# Wired Remote Controller



### **UTY-RLRY**

- Various timer setup (ON / OFF / WEEKLY) are possible.
- The room temperature can be controlled by detecting the temperature accurately with Built-in thermo sensor.
- When a failure occurs, the error code is displayed.
- Error history. (Last 16 error codes can be accessed.)
- 2-wire type



### **Functions**

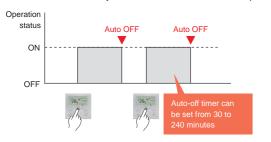
### High performance and compact size

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



### **Auto-off timer**

• The indoor unit automatically turns off after a set time has passed.



### Weekly timer function

• Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.



4 types (ON, OFF, ON, OFF) can be set on every day of the week in a week.

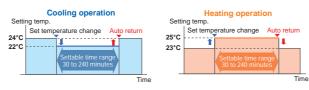
### High visibility and easy operation

- "Mode", "Set Temp", and "Fan" are displayed at large size on the top screen.
- Each function to be set is indicated by an icon.
- Control guide is displayed and operation is simple and straightforward.



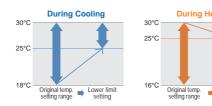
### Set temperature auto return

- The setting temperature automatically returns to the previously set temperature.
- The time range in which the set temperature can be changed is 30 to 240 minutes.



### Set temperature upper and lower limit setting

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



### **Specifications**

Model name	UTY-RLRY
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 17
Weight (g)	170

DC12V is supplied by indoor unit

# Simple Remote Controller

# 16

### UTY-RSKY / UTY-RHKY (Without Operation mode)

Compact remote controller provides access to basic functions

- Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.





UTY-RSKY

UTY-RHKY Without Operation mode

### **Functions**

### **User-friendly operation**

- Provides access to basic operations, such as Start / Stop, Fan control, Operation mode switching, and Room temperature
- A large On / Off button is provided in the centre of the remote controller for easy operation.
- · Can be used jointly with other individual control unit.
- Following an error display, diagnostics can be carried out on the controller.

### **Backlight**

- · Backlight enables easy operation in a darkened room.
- · Backlight activates during all button operations, and lasts 10 seconds in Operation mode and 5 seconds in stop mode after a button is pressed.



### Simple installation

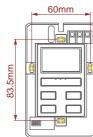
Can be mounted on the European Mounting Box (Installation dimension: 60mm) or the JIS Built-in Box (Installation dimension: 83.5mm).





JIS built-in box





### **Functions summary**

Model Operation	UTY-RSKY	UTY-RHKY
On / Off	•	•
Fan control	•	•
Operation mode	•	<u></u> *1
Room temp. setting	•	•

\*1: "Operation mode" setting is not available. It is recommend to use together with other type controller

### **Specifications**

Model name	UTY-RSKY	UTY-RHKY		
Power Supply	DC 12V			
Dimensions (H x W x D) (mm)	120 x 75 x 14			
Weight (g)	90			

DC12V is supplied by the indoor unit

# Wireless Remote Controller

### **UTY-LNHY**

Simple and sophisticated operations with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.





16

### **Functions**

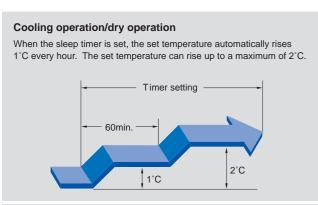
### **Built-in daily timer**

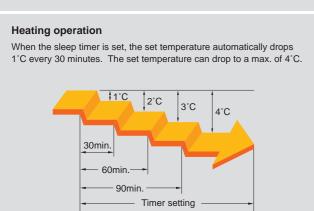
Select from 4 different timer programs :

On / Off / Program / Sleep

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

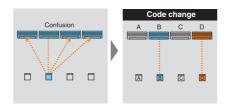
**Sleep timer:** The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.





### Easy installation and operation

Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)

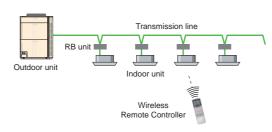


Wide and precise



### **Address setting**

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



### **Specifications**

Model name UTY-LNHY	
Power supply	1.5V (R03 / LR03 / AAA) x 2
Dimensions (H x W x D) (mm)	170 x 56 x 19
Weight (g)	85

# **IR Receiver Unit**

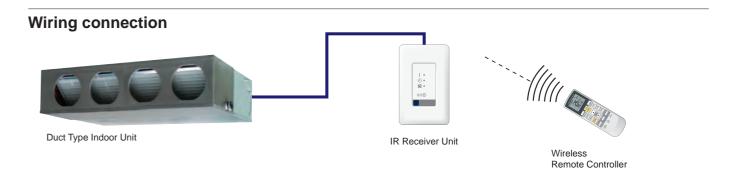
### **UTB-YWC**

Necessary to control for all Duct types\* by Wireless Remote Controller

\*Only Large Airflow Duct can not be connected to IR Receiver Unit.

- Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.





### **Specifications**

Model name	UTB-YWC
Power supply	DC 5V
Dimensions (H x W x D) (mm)	145 x 90 x 30
Weight (g)	150

# **IR Receiver Unit**

### **UTY-LRHYB1**

Cassette type indoor unit can be controlled with Wireless Remote Controller



103

### **Specifications**

Model name	UTY-LRHYB1	
Power Supply	DC 5V	
Dimensions (H x W x D) (mm)	193.9×193.9×31.2	
Weight (g)	140	

# **Group Remote Controller**

### **UTY-CGGY**

Group control of indoor units with simple operation

- Up to 8 remote controller groups can be controlled by one Group Remote Controller.
- Up to 64 Group Remote Controllers can be connected in one VRF network system.
- Network Convertor (UTY-VGGXZ1) is required to connect Group Remote Controllers to a VRF network

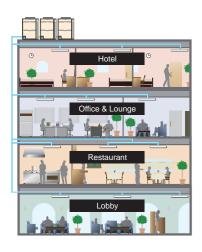
(Network Convertor allows up to 4 Group Remote Controllers)

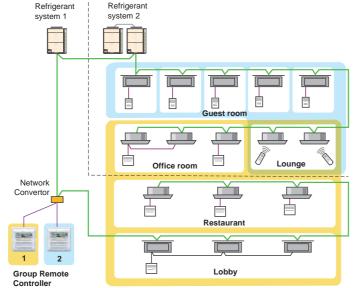




### Control up to 8 remote controller groups

Single Group Remote Controller controls and monitors up to 8 remote controller groups.





Group Remote Controller 1: To control office room, lounge, restaurant and lobby (8 remote controller groups)

8

Group Remote Controller 2: To control guest room and launge (7 remote controller groups)

### **High performance and compact size**

ON / OFF, Operating mode, Room temperature and Fan speed setting can be controlled / monitored centrally or individually.



### **Built-in weekly timers**

The weekly timer is provided as a standard function.

- 1. The timer can be set up for up to 4 times per day. (On / Off, operating mode, set temperature)
- 2. Allows separate settings for each day of the week.

### **Specifications**

Model name	UTY-CGGY
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	200

DC12V is supplied by a network converter.

# Central Remote Controller

### **UTY-DCGY**

Central control of small- and medium-sized buildings and tenants. The operation status of all connected indoor units can be viewed at a glance on a large LCD monitor to simplify individual control to batched control.

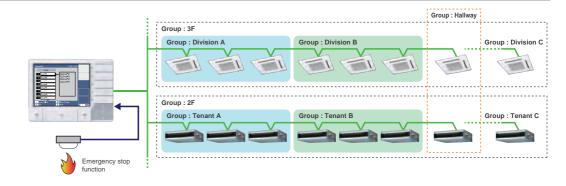
- Individual control and monitor of 100 indoor units
- 5 inch TFT color screen
- User friendly view and easy operation
- External input / output contact
- Detachable power supply unit
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

100

16

### System overview

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



### **Functions**

• Diverse control of indoor units



• Remote controller prohibition (All, On / Off, Mode, Temp, Timer, Filter)



· Weekly timer

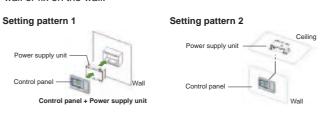


· Error history

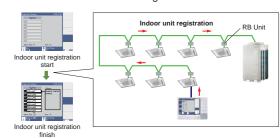
· Automatic clock adjustment

### **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 fix on the wall.



• Automatic or manual indoor unit registration



### **Specifications**

Model name	UTY-DCGY		
	Control Panel	Power Supply Unit	
Power Supply	DC 5 V	100-240V, 50-60Hz, Single phase	
Dimensions (H x W x D) (mm)	120 x 162 x 25.7	99 x 135 x 39.2	
Weight (g)	308	355	

# **Touch Panel Controller**

Max. controllable

400
Indoor units

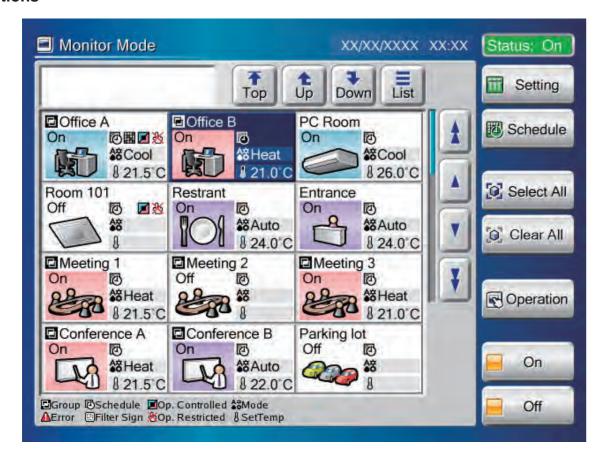
### UTY-DTGYZ1 NEW

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

- Large-sized 7.5-inch TFT color
- LCD Easy finger touch operation
- Stylish shape and design to suit all application
- Up to 400 indoor units can be controlled
- Selectable 2 display types (Icon / List) in monitoring mode
- Supports 7 different-languages ,English, Chinese, French, German, Spanish, Russian, Polish.
- Mounted with LAN interface for remote control & operation, external input / output with emergency stop and batch ON / OFF



### **Functions**



### **Easy operation**

- Large and wide-angled LCD is easily viewable even at a distance
- Easy-to-understand icon-driven Graphical User Interface (GUI)
- Wide range of simple-to-understand icons



- 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

### Easy maintenance

- Flat touch screen is easily cleaned
- Non-glare coating on touch panel controller minimizes fingerprint marking
- Easy-to-remove front cover

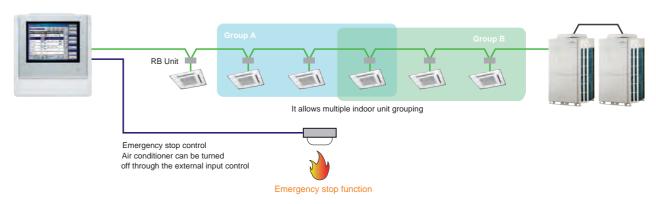


### **Easy installation**

- Touch Panel Controller is easily mounted to the wall.
- Flat back surface allows to be installed wherever it is needed.
- No additional component is required for installation.



### Up to 400 indoor units can be controlled



### **Diverse operation management**







- Outdoor unit low noise setting
- Automatic clock adjustment
- Emergency stop function

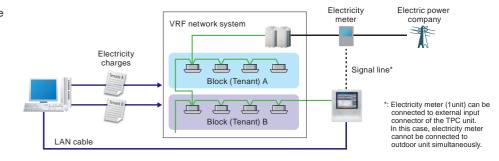
### Remote monitoring and operation

- Air conditioner can be monitored and controlled via LAN from PC.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.



### **Electricity charge apportionment (Option: UTY-PTGXA)**

 Electricity charge apportionment can be performed easily for thr power consumed when billing users for air conditioning power charges.



### Specifications

Model name	UTY-DTGYZ1	
Power Supply	100-240V 50/60Hz, Single phase	
Dimensions (H x W x D) (mm)	260 x 246 x 54	
Weight (g)	2,150	
Interface	Transmission / LAN / USB / EXT IN / EXT OUT / Reset SW	

# System Controller

Software

### **UTY-APGX**

System Controller realizes 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 outdoor 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





400

1,600

# System Controller Lite

100

400

### **UTY-ALGX**

System Controller Lite has standard functions sufficient for air conditioner management in small and medium scale buildings

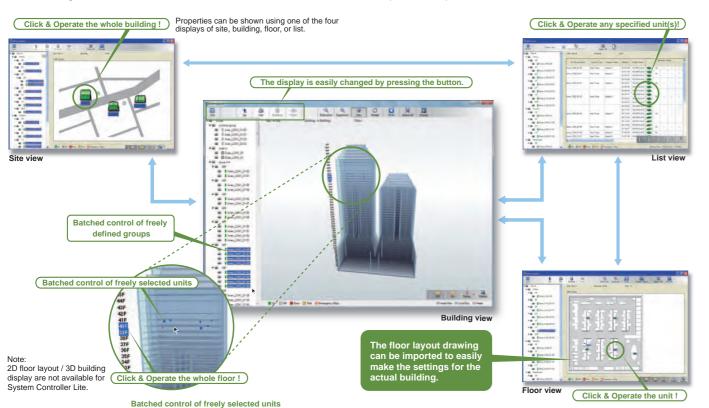
- Up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units can be controlled.
- In addition to air conditioning precision control function, a variety of management software is available as an option to give customers, a wide range of choice.

### **Functions**

### User friendly view and operation

• Click & Operate: The property is shown visually from the perspective most suitable for operation and operated accordingly (Click & Operate). You can select from among the 4 displays of site, building, floor, or list.

• Freely define groups for batched control: Indoor units can be freely grouped for simple batched control from a tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.



### Diverse operation management & Data management

### Schedule management

- Annual schedules can be set for each remote controller group / user defined group.
- Start / stop, operating mode, remote controller 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.
- Settings can be made for periods straddling midnight.
- Allows programming of special settings for holidays, including public holidays, for a complete vear.
- · Low noise operation of outdoor unit can be scheduled.

### Operating & control record

(Standard) for System Controller and System Controller Lite

Error display & E-mail notification

Displays the history of operation status and control.

Error is notified with popup

can be reviewed later.

message, audible sound and E-mail

real time when error occurs. Error

for the past 1 year are logged and



### Diverse control of indoor and outdoor unit

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



### Data base import/export

Imports/exports registration data, layout data, and image data. Only the administrator can make this setting.



### Remote controller prohibition

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

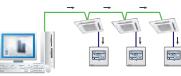


(Standard) for System Controller

Option for System Controller Lite UTY-PLGXA1

### **Automatic clock adjustment**

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



Energy apportioned by

the outdoor unit to each

indoor unit is calculated

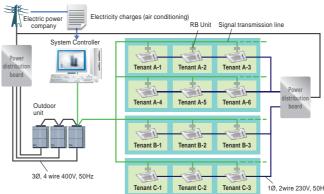
### **Electricity charge apportionment**

### **Electricity charge apportionment** calculation framework

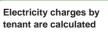
Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. 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.

### System Configuration Example

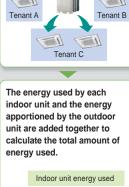






The distribution ratio for energy used by each indoor unit is calculated and the electricity charges for the energy used by each indoor unit are calculated from the total electricity charges.





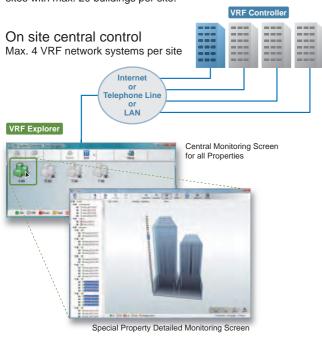
Apportioned energy total energy used

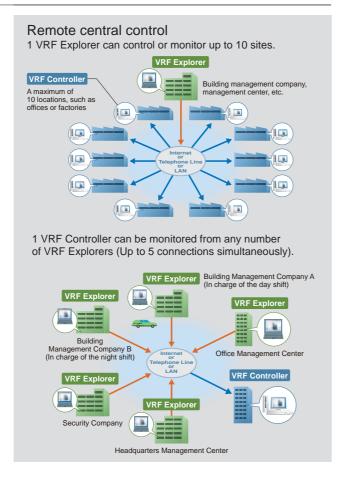
109

### Remote management

Standard) for System Controller Option for System Controller Lite UTY-PLGXR1

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

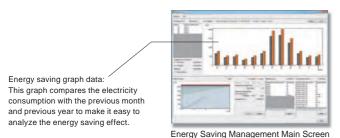




### **Energy saving management**

Option for System Controller UTY-PEGX Option for System Controller Lite UTY-PLGXE1

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.



### Indoor unit rotation operation

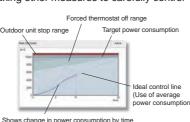
The operation of indoor units can be automatically rotated within a group in accordance with the set annual schedule to reduce power consumption while maintaining comfort. The indoor unit operation stoppage rate can be selected.



### Peak cut operation

A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully control

the power consumed while maintaining comfort and conducting control to maintain the target power consumption set for each time. The indoor units to be controlled can be freely grouped and the control level can be set.



### **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.



### **FUNCTIONS SUMMARY**

			System o		System controller lite			
Function		Туре	UTY-APGX	Option UTY-PEGX	UTY-ALGX	Option UTY-PLGXR1	Option UTY-PLGXA1	Option UTY-PLGXE
	Max. VRF networks s	upported	4	-	1	-	-	-
System	Max. indoor unit / remote controller groups per VRF network		400	-	400	-	-	-
specification	Max. outdoor units per System controller		100	-	100	-	-	-
	Max. indoor units / remote controller groups per System controller		1600	-	400	-	-	-
	Max. outdoor units pe		400	-	100	-	-	-
	Multi site display		10	-	10	-	-	-
	Number of building / 1	l site	20	-	-	-	-	-
	Number of floor per 1		200		-	-	-	-
	Number of floor per 1		50	-		-	-	-
Site	3D graphical layout vi		0	-	-	-	-	-
supervision	2D graphical layout vi		0		-	_	_	-
	List display		0	-	0	-	-	-
	Tree display		0	-	0	-	-	-
			0	-	0	-	-	
	Group display		0	-	0	-	-	-
Error	Error notification				0			
management	Audible alarm		0	-	_	-	-	-
	Error e-mail notification	DII	0		0	-		
Llioton.	Error history		0	-	0	-	-	-
History	Operation history		0	-	0	-	-	-
	Control history		0	-	0	-	-	-
		On/Off	0	-	0	-	-	-
		Operation mode	0	-	0	-	-	-
		Room temperature	0	-	0	-	-	-
	Individual	Fan speed	0	-	0	-	-	-
	control	Air flow direction	0	-	0	-	-	-
	CONTROL	Economy mode	0	-	0	-	-	-
Operation		Room temperature set point limitation	0	-	0	-	-	-
control		Test operation	0	-	0	-	-	-
		Antifreeze	0		0	-	-	_
		Outdoor unit low noise setting	0	-	0	-	-	-
		Remote control prohibition setting	0	-	0	_	_	_
	Individual management	Temperature upper and lower limit setting	0	<b>.</b>	0	_	_	
		Filter sign reset	0	-	0	-	-	_
				-	0	-	-	-
	Other	Memory operation	0	-	0	-	-	-
		Pattern operation	0					
	Annual Schedule		0	-	0	-	-	-
	Special day setting		0	-	0	-	-	-
	On /off per day		72	-	72	-	-	-
Schedule	On / off per week		504	-	504	-	-	-
	Day off		0	-	0	-	-	-
	Min. unit of timer setti		10	-	10	-	-	-
	Low noise mode Wee	kly schedule	0	-	0	-	-	-
Remote	Remote monitoring		0	-	-	0	-	-
	Remote operation cor	ntrol	0	-	-	0	-	-
managemment	Remote function setting		0	-	-	0	-	-
	Apportionment charge		0	-	-	-	0	-
	Tenant (block) setting		0	-	-	-	0	-
Electricity	Common facilities app		0		_	_	0	_
charge		ption allotment setting	0	-	-	_	0	_
apportionment		at cooling and heating	-	0*	-	-	0	-
			-	0			0	-
		Electricity meter supported		0	-	-	-	0
	Indoor unit rotation							
	Peak cut control		· · ·	0	-	-	-	0
Energy	Outdoor unit capacity			0	-	-	-	0
saving	Record of energy sav		-	0	-	-	-	0
management	Energy saving informa	ation		0	-	-	-	0
	Power consumption m			0	-	-	-	0
	Electricity meter supp		1	0				0
			0		0	_	-	-
	Database import/expo							
Others	Database import/expo Automatic clock adjus		0	-	0	-	-	-

○: Available. -: Not available.

:Power calculation application software is necessary, please contact the local FGL representative.

### Personal computer system requirements

	System Controller	System Controller Lite			
Operating system	<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Home Premium (32-bit or 64-bit) SP1, Windows<sup>®</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 (32-bit or 64-bit), Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit)</li> </ul>				
CPU	Intel <sup>®</sup> Core <sup>™</sup> i3 2 GHz or higher				
Memory	2 GB or more (for Windows Vista® and Windows® 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 space	40 GB or more of free space			
Display	1024 x 768 or higher resolution	1024 x 768 or higher resolution			
Interface	Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line)     USB ports (Maximum of 6 ports)     (Required only for the Server PC that works as VRF Controller)     - Maximum of 2 USB ports are required for WibuKey connection     - Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface     Maximum number of required USB port depends on the applicable system configuration.	•Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line •USB ports (Maximum of 5 ports) (Required only for the Server PC that works as VRF Controller)  • Maximum of 4 USB ports are required for WibuKey connection  -1 USB port is required for Echelon® U10 USB Network Interface  *The maximum number of required USB port depends on the applicable system configuration.			
Graphic accelerator	Microsoft® DirectX® 9.0c compatible				
Software	Adobe® Reader® 9.0 or later	<u> </u>			
Optical drive	DVD-ROM drive				

•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.)

### <Packing list>

	For System co		controller		For System controller Lite		
Туре	0	Option	System Controller Lite	Option			
	System controller	Energy manager		Remote access	Electricity charge apportionment	Energy saving	
Model name	UTY-APGX	UTY-PEGX	UTY-ALGX	UTY-PLGXR1	UTY-PLGXA1	UTY-PLGXE1	
DVD-ROM	1	1	1	_	_	_	
WibuKey*1(Software protection key)	1	1	1	1	1	1	

\*1: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 Wibu Key. However, WibuKey is not required for remote VRF Explorer software.

# BACnet® Gateway

### **UTY-ABGX**



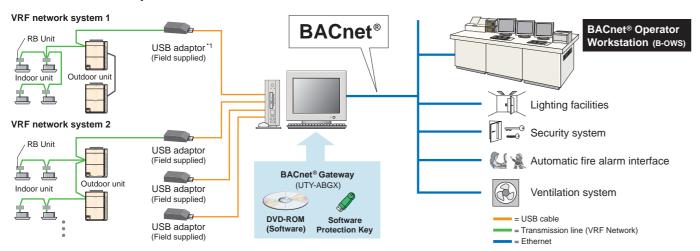
Standard 135 is the responsibility of the BACnet International. BTL is a registerer

400

1,600

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks.
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2004) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- 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 are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

### Installation example



Max. 4 VRF network systems

\*1: USB adaptor is U10 USB Network Interface of Echelon® Corporation

### Personal computer system requirements

		UTY-ABGX			
Operating system		Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2     Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)     [Supported languages]     English, Chinese, French, German, Russian, Spanish, and Polish			
CPU		Intel <sup>®</sup> Core <sup>™</sup> i3 2 GHz or higher			
Memory		2 GB or more (for Windows Vista® and Windows® 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 space			
Display		1024 x 768 or higher resolution			
Interface		Ethernet port (for getting access to the Internet using LAN)  USB ports (Maximum of 5 ports)  1 USB port is required for WibuKey connection  Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface  Maximum number of required USB ports depends on the applicable system configurations.			
Software		Adobe® Reader® 9.0 or later			
Optical drive		DVD-ROM drive			
<packing list=""></packing>					
Name and shape	Quantity	Application			
DVD-ROM	1	Includes the software and manuals for BACnet® Gateway.			
Wibu Key (Software protection key)	1	Software protection key to be connected to USB port on the BACnet®-installed PC.  BACnet® Gateway 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.)

# Network Convertor for LONWORKS®

**UTY-VLGX** 

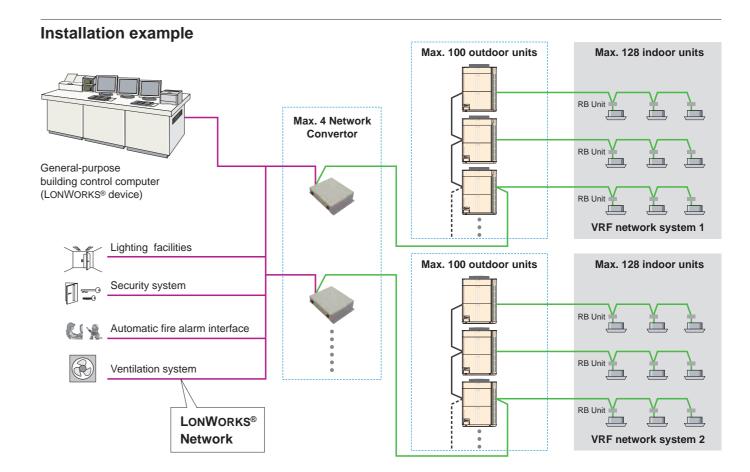
• For connection between VRF network system and a LONWORKS® open network for management of small to medium-sized BMS and VRF network system.

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

4

100

128



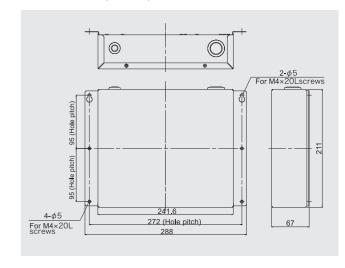
### **Specifications**

Model name	UTY-VLGX
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

### Transmission specifications (BMS side)

Transmission speed	78 kbps		
Transceiver	FT-X1 (Echelon® Corporation)		
Transmission way form	Free topology		
Terminal resistor	None (It attaches at the terminal of a network.)		

### **Dimensions** (Unit:mm)



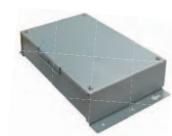
113

# **MODBUS®** Convertor

### UTY-VMGX NEW

The MODOBUS Convertor allows a complete integration of air conditioners into MODBUS Networks.

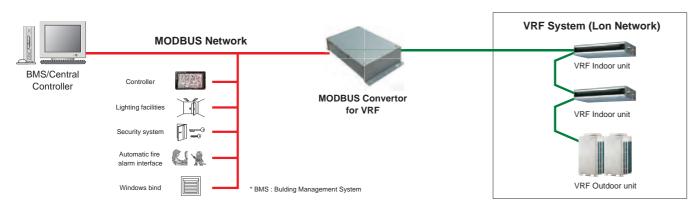
- Compact and lightweight design
- Direct connection to MODBUS Network
- Up to 128 indoor units can be controlled in one MODBUS Convertor
- The MODBUS Convertor permits central monitoring and control of air conditioners from BMS or Central Controller.





### **Functions**

# The Solution for integrating VRF Systems into small and medium sized buildings by Modbus method.

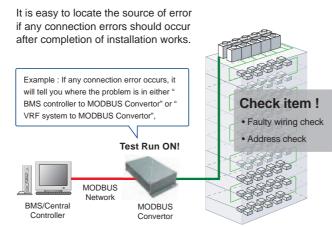


### **Connectable MAX 9**

Up to 9 convertors can be connected to a VRF network. The simultaneous controls such as ON/OFF or temperature settings can be done for each zone.



### Traceability of sources of connection error



### **Specifications**

Model name	UTY-VMGX
Power Supply	220-240V 50/60Hz, Single phase
Input power (W)	Max. 2
Dimensions (H x W x D) (mm)	54 × 260 × 150
Weight (g)	1,100

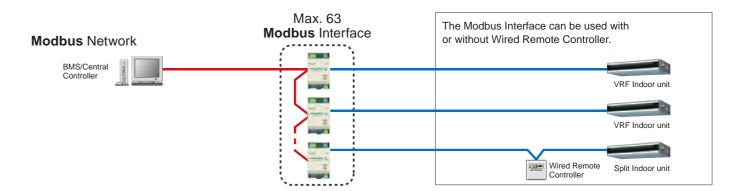
# **MODBUS®** Interface

### FJ-RC-MBS-1

The Modbus Interface allows a complete integration of air conditioners into Modbus Networks.

- · Simple installation due to small and compact size.
- No separate external power supply required.
- The Modbus Interface permits central monitoring and control of air conditioners from BMS,





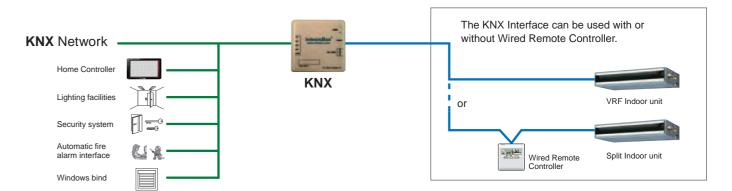
# **KNX®** Interface

### FJ-RC-KNX-1i

The KNX Interface allows a complete integration of air conditioners with KNX Network systems.

- Simple installation due to small and compact size.
- No separate external power supply required (just KNX bus power).
- Can be used for single indoor units and group controlled (up to 16) indoor units





### **Specifications**

Model name	FJ-RC-MBS-1
Dimensions (H x W x D) (mm)	93×53×58
Weight (g)	85

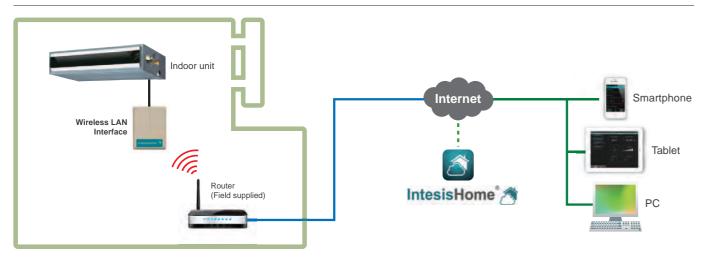
Model name	FJ-RC-KNX-1i
Dimensions (H x W x D) (mm)	70×70×28
Weight (g)	70

# Wireless LAN Interface IntesisHome 7

FJ-RC-WIFI-1

- It is the most advanced solution to remotely manage an Air Conditioning system using all sort of mobile devices such as Smartphones, Tablets and PC
- No separate external power supply required
- Can be used for single indoor units and group controlled (up to 16) indoor units





### **Basic control**

- Turning the units on and off
- Mode control (Heat, Cool, Dry, Auto, Fan)
- Fan speed setting
- Louver position (Airflow direction setting)
- Room temperature display
- Set temperature control
- Multi Language
- One Scene and Timer



### Advanced control (Optional functions)

- Climate working modes (ECO, Comfort, Powerful) (future release)
- Schedulable functionalities (ON/OFF, Modes, Set point temperature, Fan Speed, Louver position)
- Set temperature limitation (future release)
- Multiple Scenes & Timers and Calendar function

### **Notifications and History**

- Alerts e-mail notification (future release)
- Air conditioning malfunction alerts
- Connectivity monitoring and alerts
- History (future release)

### **Specifications**

Model name	FJ-RC-WIFI-1
Dimensions (H x W x D) (mm)	70×108×28
Weight (g)	80

# **Network Convertor**

UTY-VTGX (DC power supply type) NEW UTY-VTGXV (AC power supply type) NEW

- The network convertors are required when connecting single split system to VRF network system.
- · Compact and light weight design
- Connectable to both types of 2-wire and 3-wire remote controllers



Max. controllable

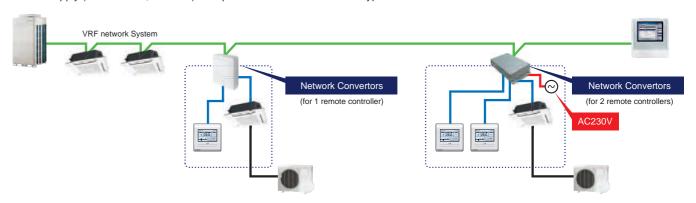
16
single indoor units

100
Network
Convertors

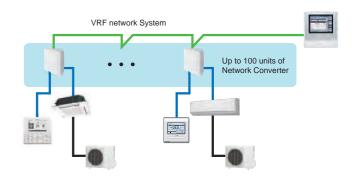
### **Functions**

### Installation example

- 2 types of 1 remote controller type and 2 remote controllers type are available.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.



- 2-wire and 3-wire type of the wired remote controller can be connectable.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.
- VRF network System
- A central control can be provided for the single split systems. (Up to 100 units of Network Convertor is connectable in one VRF network system)



### **Specifications**

Model name	UTY-VTGX		UTY-VTGXV
Power Supply	polar 3-wire DC12V	non-polar 2-wire DC12V	220-240V 50/60Hz, Single phase
Input power (W) Max. 1.2		. 1.2	Max. 3
Dimensions (H x W x D) (mm)	43 × 11	7 × 140	54× 260 × 150
Weight (g)	250		1,100

# **Network Convertor**

### **UTY-VGGXZ1**

- This Network Convertor is to be used for connecting single split system or Group Remote Controller (UTY-CGGY / UTY-CGGG) with the VRF network system.
- Please select the function by switching the dip switch during the installation.

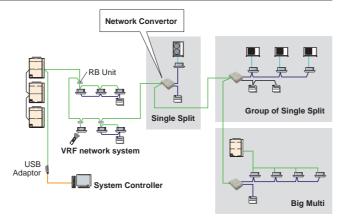




### **Functions**

### Used for connecting single split system

- Split type systems can be centrally controlled from Touch Panel Controller or System Controller through connection to the VRF's network convertor.
- On / Off Control, Master control, Room temperature and Fan speed setting via the Network Convertor are available.
- One Network Convertor can be used to connect and control up to 16 single units.



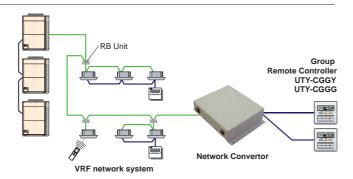
Please consult your distributor for connectable split type air conditioner.

Up to 100 Network Convertors may be connected in single VRF network system.

One Network Convertor is considered as a single refrigerant system, irrespective of the number of connected single models.

# Used for connecting Group Remote Controller

4 Group Remote Controllers can be connected to a single Network Convertor (UTY-VGGXZ1).



\* 2 refrigerant circuits can be covered by a single Network Convertor (UTY-VGGXZ1). Up to a total of 16 Network Convertors (UTY-VGGXZ1) and System Controller adaptors can be connected in a single VRF network system.

### **Specifications**

Model name	UTY-VGGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	8.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

# **External Switch Controller**

### **UTY-TEKX**

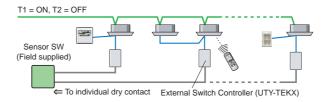
Air conditioner switching can be controlled by connecting other sensor switches

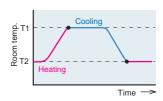
- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- · Card-key or other sensor switches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

### Installation example

Auto mode operation, which switches the cooling and the heating automatically, is enabled by using the sensor switch and External Switch Controller.

Note: All indoor units will operate in the same mode.



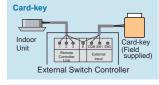


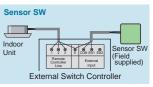
Note 1.

Please choose a thermosensor switch which can be set up for T1 and T2.

Note 2. The remote controller's operation is prior to the auto mode operation.

### Electrical wiring



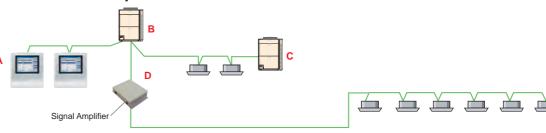


# Signal Amplifier

### **UTY-VSGXZ1**

- Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.
- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,
- (1) When the total wiring length of the transmission line exceeds 500m.
- (2) When the total number of units on the transmission line exceeds 64.

### Installation example



### **Specifications**

Model name	UTY-TEKX
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 75 x 30
Weight (g)	100

Ī	DC12V	is supp	lied by	the	indoor	unit

Model name	UTY-VSGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

# Service Tool Software

### **UTY-ASGX**

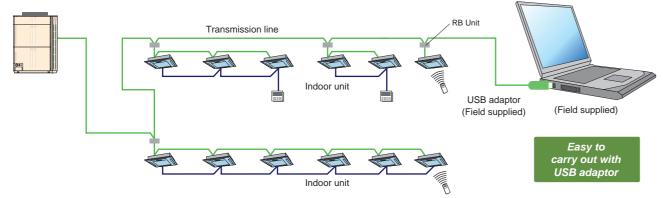
Extensive monitoring and analysis functions for installation and maintenance.

- Operation status can be checked and analyzed to detect even the small abnormalities.
- Data collected and stored on site can be checked later, off-line, off-site for more detail analysis.
- One VRF network system with maximum number of up to 400 units can be monitored and controlled.
- · Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, graphs as well.
- Simple operation control functions are useful during maintenance.
- The recent error history can be retrieved from units on demand to perform analysis on the cause of the error, after connecting Service Tool to the VRF network system.
- Commissioning tool supports test runs, data storage for each unit and saving of data as CSV files, which may be formatted to create commissioning report.
- Connectable to any point of transmission line with USB adaptor\*1 (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- 14 advanced functions are available for the VR-II series for through servicing and through shooting.
- The operating state (Solenoid valve) of RB unit can be checked.
- \* 1: Service Tool (UTY-ASGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type(UTR-YTMA)

# 100



### Wiring connection



\*USB Adaptor is U10 USB Network interface of Echelon® Corporation

### **Functions**

### 1) System List

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



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.

2) Equipment Detail (Diagram)



### 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



### 7) Commissioning Tool

Test run commands can be executed with this tool.

During test running, the outdoor unit / indoor unit sensor data can be saved (commissioning log data).

After the end of test running, this data can be exported in CSV file format.

### 9) Remote Setting \*

Function (Field) Setting for indoor unit is realized remotely



### 10) System Time Setting \*

6) Remote File Download

system, unit and time range.

Operation and error history data can be

downloaded. Only the required data may be downloaded specifying the refrigerant

8) Network Topology Analyzer \*

displayed in network segments in tree form.

A list of units connected to the VRF system network is

An arbitrary time is set for all the remote controllers within the system.

### 11) Central Release \*

The operation setting restriction function of the indoor units set from the controller can be forcibly released.(remote controller inhibit, temperature upper/lower limit setting)

### 12) Model Name Writer \*

An arbitrary model name can be written to the target unit.

### 13) Error Memory Reader \*

When an error occurs at an outdoor unit, the operation data records before the error are acquired over a network and saved to a CSV file

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

### 14) Time Guard Information \*

Reference data for judging the maintenance period of indoor and outdoor units (compressor,FAN, etc. integrated time) is output to a CSV file.

\*: Supported by Ver. 1.1 or later

### Personal computer system requirements

	UTY-ASGX
Operating system	Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2     Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	10 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB ports     1 USB port is required for WibuKey connection     1 USB port is required for Echelon® U10 USB Network Interface
Software	Internet Explorer® 8, 9, 10 or 11 / Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive

### <Packing list>

3		
Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals
WibuKey	1	Software protection key to be connected to USB port on the Service Tool-installed PC.
(Software protection key)		These products runs only on a PC with WibuKey.

Personal computer that satisfies the following system requirements

<sup>•</sup>Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)

# Web Monitoring Tool



400

# 1.600

### **UTY-AMGX**

### Product features

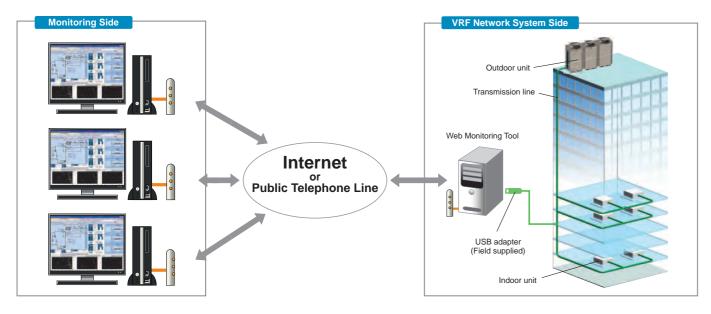
- Troubleshooting is performed by monitoring each unit remotely during periodical system checks off-site.
- Operation status can be checked and analyzed to detect even the smallest abnormalities.
- Four VRF network systems each with 400 units, with maximum number of up to 1,600 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, and graphs as well.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in off-line mode of the Service Tool.
- Error notification can be automatically transmitted to several locations using the internet\*1.
- Monitoring side computer is not required to install special software, requires only general web browser.
- Connectable to any point of transmission line with U10 USB interface\*2 (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- The operating state (Solenoid valve) of RB unit can be checked.
- \* 1: USB of internet mail system required.
- \* 2: Web Monitoring Tool (UTY-AMGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type (UTR-YTMA).

### **COMPARISON TABLE**

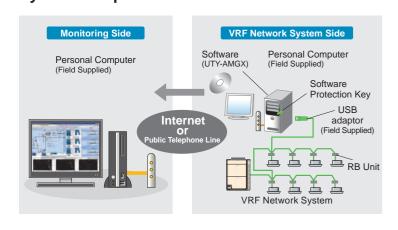
No.	Item	Service Tool	Web Monitoring Tool UTY-AMGX				
		UTY-ASGX	VRF network system Side	Monitoring Side			
1	Interchangeability of equipment	•	•	•			
2	Indication of equipment list	•	•	•			
3	Operation control	•	•	_			
4	Indication of refrigerant circuit diagram	•	•	•			
5	Commissioning tool	•	•	_			
6	Monitoring of equipment information	•	•	•			
7	Monitoring of operating condition	•	•	•			
8	Monitoring of sensor data	•	•	•			
9	Storage and CSV output of operating history (sensor data)	•	•	•			
10	Indication of trend graph	•	•	•			
11	Printing of trend graph	•	•	•			
12	Monitoring and screen display of abnormalities	•	•	•			
13	E-mail automatic transmission of abnormalities	_	●*1				
14	Setting for user level	_	•	_			
15	Network Topology Analyzer *	•	•	_			
16	Remote Setting *	•	•	_			
17	System Time Setting *	•	•	_			
18	Central Release *	•	•				
19	Model Name Writer *	•	_				
20	Error Memory Reader *	•	_	_			
21	Time Guard Information *	•	•	•			

\*: Supported by Ver. 1.1 or later

### **Web Monitoring System**

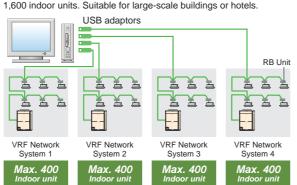


### **System components**



### Support 4 VRF network systems

USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units. Suitable for large-scale buildings or hotels.



### Personal computer system requirements

	UTY-AMGX
Operating system	Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2 Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit])     2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line)  USB ports (Maximum of 5 ports)  1 USB port is required for WibuKey connection  Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface  Maximum number of required USB ports depends on the applicable system configurations.
Software	Internet Explorer® 8, 9, 10 or 11 / Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive

### <Packing list>

< racking list>	Tracking list>								
Name and shape	Quantity	Application							
DVD-ROM	1	Includes the software and manuals							
Wibu Key (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC. These products runs only on a PC with WibuKey.							

<sup>\*1:</sup> it is available only during a connection to the Internet.

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.)



# EFFECTIVE HEAT EXCHANGE AND SIMULTANEOUS FRESH AIR VENTILATION

High Efficiency and low noise levels are achieved by using a highly efficient heat exchange process. A comfortable air conditioned space is achieved by conveniently selecting whether to use heat exchange or normal ventilation setting, according to the requirements of the conditioned space.

**ENERGY RECOVERY VENTILATOR** 

**OUTDOOR AIR UNIT** 

**DX-KIT FOR AIRHANDLING APPLICATIONS** 

# **Energy Recovery Ventilator**

Models

UTZ-BD025B UTZ-BD035B UTZ-BD050B UTZ-BD080B UTZ-BD100B

Energy recovery ventilator unit offers maximum comfort and greater energy savings.



### Heat exchange ventilation and normal ventilation

### Heat exchange ventilation

When a room is cooled or heated, the exhausted cooling / heating energy is recovered by heat-exchange ventilation.

### Normal ventilation

The operation is used during periods when the room space requires no cooling or heating effect, i.e. when there is minimal temperature difference between the indoor and outdoor environments.

## Adopts a highly efficient counter-flow heat exchange element



### **Specifications**

Rated flow rate				250 m³/h	350 m³/h	500 m <sup>3</sup> /h	800 m³/h	1000 m³/h			
Mode	el No.			UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B			
Powe	er source				220 - 240V, 50Hz						
	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311			
	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700			
GE	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75			
EXCHANGE LATION	Temperature Exchange Efficiency	Extra high / High / Low	%	75 / 75 / 77	75 / 75 / 78	75 / 75 / 76	75 / 75 / 76	75 / 75 / 79			
HEAT EY	Energy Exchange Efficiency Cooling	Extra high / High / Low	%	63 / 63 / 65	66 / 66 / 71	62 / 62 / 64	65 / 65 / 68	65 / 65 / 70			
当品	Energy Exchange Efficiency Heat pump	Extra high / High / Low	%	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76			
	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37 / 34.5	38.5 / 37.5 / 34.5			
Z	Input power	Extra high / High / Low	W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311			
NORMAL VENTILATION	Air flow rate	Extra high / High / Low	m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700			
A E	External static pressure	Extra high / High / Low	Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75			
8 8	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	38.5 / 38 / 32.5	37.5 / 37 / 34.5	40.5 / 39.5 / 36.5			
Dime	nsions (W x D x H)		mm	882 x 599 x 270	1050 x 804 x 317	1090 x 904 x 317	1322 x 884 x 388	1322 x 1134 x 388			
Weig	ht		kg	29	49	57	71	83			
Outle	t duct diameter		mm	150	150	200	250	250			
Oper	ation range		°C	-10 ~ 40	-10 ~ 40	-10 ~ 40	-10 ~ 40	-10 ~ 40			
Maxii	mum humidity		%	85	85	85	85	85			

<sup>\*</sup> The noise level must be measured 1.5 m below the centre of the unit.

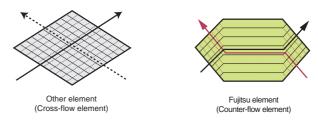
### **Energy efficiency and ecology**

Energy consumption is dramatically reduced by using a counterflow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings. Recovers up to 77% of the heat in the outgoing air.



### Features of heat exchange element

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element, air flows through the element for a longer time (longer distance), so the heat-exchange effect remains unchanged.



### **Quiet operation**

Significantly reducing low pressure loss and noise allows low-noise operation.

# Extended range of an external static pressure

An external static pressure is improved by adopting a powerful fan motor.

This allows for application in a wide variety building.

### Slim shape and easier installation

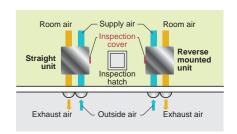
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



# Reverse mountable direct air supply / exhaust system

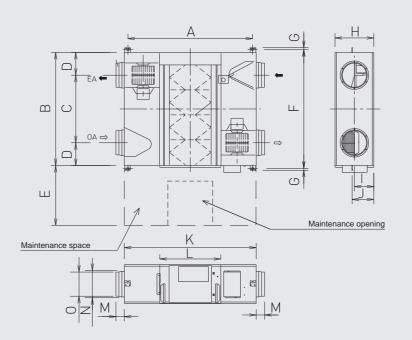
Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in reverse position, only one inspection hole is needed for two units: Two units can share one inspection hole so duct work is easier and more flexible.



### Dimensions (Unit:mm)

Models: UTZ-BD025B / UTZ-BD035B / UTZ-BD050B / UTZ-BD080B / UTZ-BD100B



	UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
Α	810	978	1018	1250	1250
В	599	804	904	884	1134
С	315	580	640	428	678
D	142	112	132	228	228
Е	600	600	600	600	600
F	655	860	960	940	1190
G	19	19	19	19	19
Н	270	317	317	388	388
1	135	159	159	194	194
J	159	182	182	218	218
K	882	1050	1090	1322	1322
L	414	470	470	612	612
M	95	70	127	85	85
Ν	219	162	210	258	258
0	144	144	194	242	242

# Outdoor Air Unit Production by order

Models

### ARXH054GTAH **ARXH072GTAH ARXH096GTAH**

The heat pump method efficiently processes the outdoor air for cooling and heating and supplies 100% fresh air into a room.



ARXH054GTAH

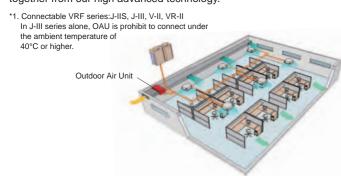


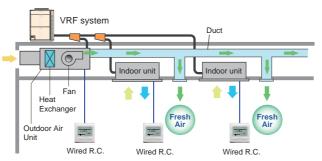
ARXH096GTAH

ARXH072GTAH

### One VRF system can provide air conditioning and air supply at the same time.

Outdoor Air Unit can be connected in a same VRF\*1 system as one of indoor unit series and can create fresh and comfortable air supply together from our high advanced technology.





\* 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.

### **Specifications**

					(Tentative)
Rated flow rate	Rated flow rate			1500 m³/h	2000 m³/h
Model No.			ARXH054GTAH	ARXH072GTAH	ARXH096GTAH
Power source			230/1/50	230/1/50	230/1/50
Capacity	Cooling	kW	14.0	22.4	28.0
Capacity	Heating	KVV	8.9	13.9	17.4
Input Power Cooling / Heating		W	179	292	370
Airflow Rate		m³/h	1,080	1,680	2,100
Static Pressure	Standard (range)	Pa	185 (50-185)	200 (50-200)	200 (50-240)
Sound Pressure Level	ssure Level dB		42	44	47
Dimensions (H x W x D)	x D) mr		425×1,367×572	425×1,367×572	450×1,583×700
Weight		kg	48	55	71
Connection Pipe Diameter (Sma	all / Large)	mm	Ø9.52/Ø19.05	Ø12.70/Ø22.22	Ø12.70/Ø22.22
Operation Bongs	Cooling	•CDB	5 to 43	5 to 43	5 to 43
Operation Range	Heating	-CDB	-7 to 21	-7 to 21	-7 to 21
Refrigerant			R410A	R410A	R410A

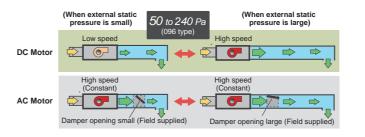
Note: Specifications are based on the following conditions. Cooling: Outdoor temperature of 33°CDB / 28°CWB.
Heating: Outdoor temperature of 0°CDB / -2.9°CWB. Pipe length: 7.5 m Voltage: 230 [V].

### 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.



- · Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.
- Static pressure can be set easily using wired remote controller.



### Top class compact design

• Top class lightweight compact design at just 425 mm in height, 55 kg in weight for ARXH072 type. This unit can be installed easily even at narrow space.



### **Various Controller**

Supplied variety of controllers as options, such as individual controller, central controller, and building management

### **Individual Controller**



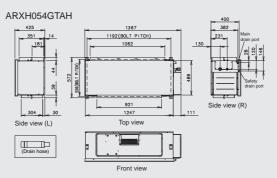
### **Central Controller**

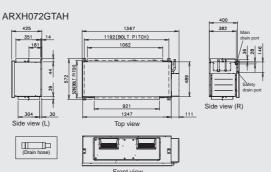


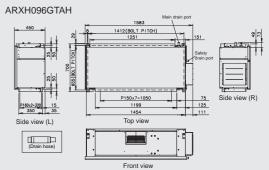
\* The temperature setting is discharged air temperature setting. The air volume is set to a constant speed.

### Dimensions (Unit: mm)

Models: ARXH054GTAH / ARXH072GTAH / ARXH096GTAH







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# **DX-Kit** for air handling applications

Models **Control unit UTY-VDGX** 

UTP-VX30A UTP-VX60A UTP-VX90A

These kits enable other manufacturers air handling units (AHU) and fan coil units (FCU) to be incorporated into a Fujitsu VRF system or, be connected to a dedicated Fujitsu VRF outdoor unit as a 1:1 system to control outside air ventilation (AHU) or room temperature (FCU).

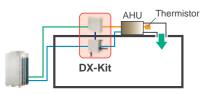




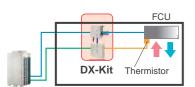




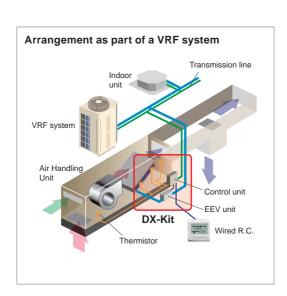
### Multiple temperature sensors optimally control the air handling unit and fan coil unit.



When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

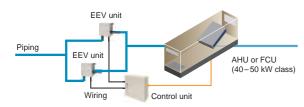


When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.



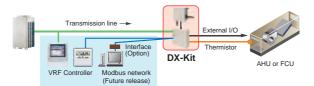
### Supports a wide range of capacity classes

- 2 EEV units can be connected in parallel and up to 20 HP (50 kW) large capacity units. (Separation Tube of UTP-LX180A is required.)
- Connectable capacity range: 5 kW to 50 kW

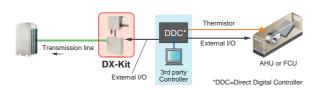


### A variety of controls to match the application

• Central control using our VRF controllers or central management controllers



· Central control from external controllers



### **Functions Summary**

### Inputs

- ON/OFF
- Setting temperature
- Capacity demand
- Heating / Cooling operation mode
- Fault information

### **Outputs**

- ON/OFF indication
- Fan ON/OFF indication
- Thermo ON/OFF indication
- Defrost indication
- Fault indication

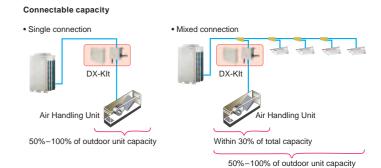
### **Modbus Control**

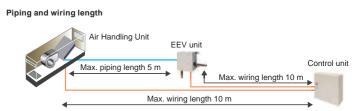
• Possible to control via a Modbus enabled BMS by using optional interface.

### **Installation Limitation**

- Connectable VRF series : J-IIS, J-III, V-II, VR-II
- Connectable DX-Kit system capacity range: 50 to 100% of the outdoor unit capacity
- Connectable DX-Kit system capacity range with indoor units : 30% or less of the outdoor unit capacity
- Max. wiring length from control unit: 10 m
- Max. piping length between EEV unit and indoor unit : 5 m
- Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.







### **Specifications**

EEV unit		UTP-VX30A		UTP-VX60A		UTP-VX90A		UTP-VX90A×2				
Power source V/Ø/Hz				230 / 1 / 50								
Connectable capacity cl	lass	kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0
Capacity	Cooling	- kW	5.6 (5.1-5.9)	6.3 (6.0-7.1)	8 (7.2-9.0)	10 (9.1-11.1)	12.5 (11.2-13.2)	14 (13.3-18.0)	22.4 (18.1-23.7)	25 (23.8-28.0)	40 (28.1-44.7)	50.4 (44.8-50.4)
Сарасну	Heating		6.3 (5.7-6.7)	7.1 (6.8-8.0)	9 (8.1-10.0)	11.2 (10.1-12.4)	14 (12.5-15.0)	16 (15.1-20.0)	25 (20.1-26.5)	28 (26.6-31.5)	45 (31.6-49.9)	56.5 (50.0-56.5)
Airflow Rate(Reference	value)	m³/h	1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000
Dimensions (HxWxD) mm		mm	160 × 220 × 90								(160 × 220 × 90)× 2	
Weight kg		2						2 × 2		× 2		
Connection pipe diamet	er(Liquid)	mm	Ø9.52						Ø1:	Ø12.70		

Control unit		UTY-VDGX
Power source	V/Ø/Hz	230 / 1 / 50
Dimensions (H×W×D)	mm	400 × 400 × 120
Weight	kg	10

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m Voltage: 230 [V].



# Auto Louver Grille Kit (Option)

### Models

**UTD-GXTA-W UTD-GXTB-W UTD-GXTC-W** 

Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.



### **Flexible Control**

### Operation with indoor unit

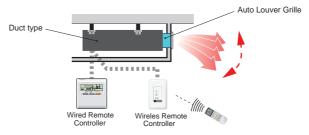
Auto Louver can be operated by synchronizing remote controller of indoor unit.

### • UP and Down auto swing

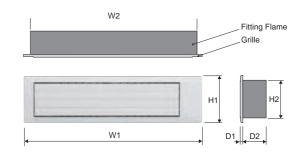
- Auto airflow direction and auto swing4 steps selectable

### Auto-closing louver

When operation of indoor unit is stopped, the louver will automatically close.



### **Dimensions**



						Unit: mm
Model Name	W1	W2	H1	H2	D1	D2
UTD-GXTA-W	683	645				
UTD-GXTB-W	883	845	180	148	9	84
UTD-GXTC-W	1,083	1,045				

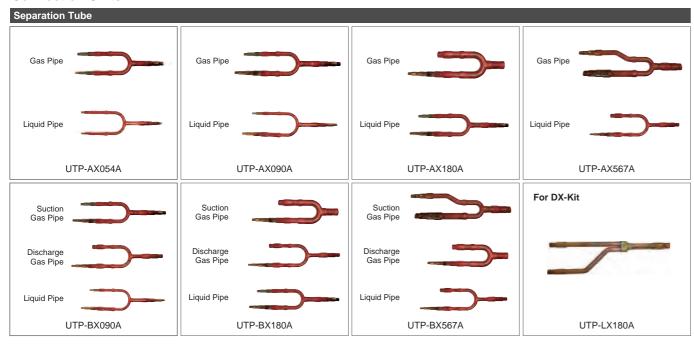
### **Specifications**

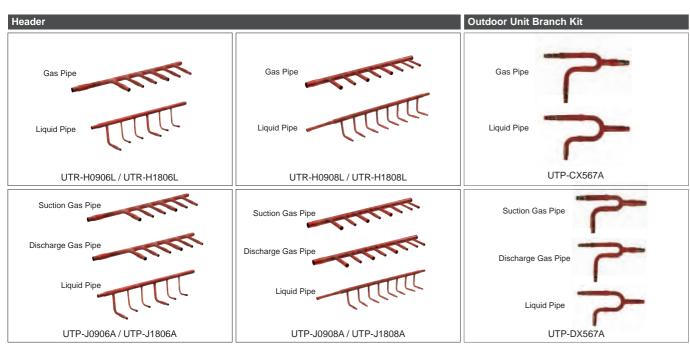
Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W	
Applicable Indoor Unit	:		ARXD04/07/09/12/14GALH ARXK07/09/12/14GCLH	ARXD18GALH ARXK18GCLH	ARXD24GALH ARXK24GCLH	
Power Supply Connecting with Control box of indoor unit						
Fixing of Auto Louver	Grille			Screw fixing to Flange or Square Duct		
Extension Square Duc	ct Limit		1.0m	(Max. duct length between indoor unit and	Grille)	
Net Dimension mm (inch)			180x683x(84+9) [7-3/32x26-7/8x(3-5/16+11/32)]	180x883x(84+9) [7-3/32x34-3/4x(3-5/16+11/32)]	180x1083x(84+9) [7-3/32x42-5/8x(3-5/16+11/32)]	
Mojaht	Net	kg	2.0 (4.4)	2.5 (5.6)	3.0 (6.7)	
Weight	Gross	(lb.)	3.0 (6.7)	3.5 (7.8)	4.0 (8.9)	
Color				White		
Louver Motor				Stepping Motor		
Accessories			Fitting Flame, etc.			
	Cooling	°C (°F)		18 to 32 (64 to 90)		
Operation range	Cooling	% RH		80% or less		
	Heating	°C (°F)	16 to 30 (60 to 88)			

<sup>\*:</sup> The Auto Louver Grille Kit can also be installed to ARXD07/09/12/14/18/24LATH revision code B models.

# **Optional Parts**

### **Connection Units**







### **Specifications**

Separation	Tube

Model name	UTP-AX054A	U	UTP-AX090A		A	UTP-AX567A	
Total cooling capacity of indoor unit (kW)	19.6 or less		28.0 or less 2		)	56.1 or more	
Model name	UTP-BX090A		UTP-BX180A		UTP-BX567A		
Total cooling capacity of indoor unit (kW)	28.0 or less		28.1 to 56.0		56.1 or more		

### Header

3-6 Branches	UTR-H0906L	UTR-H1806L
3-8 Branches	UTR-H0908L	UTR-H1808L
	28.0 or less	28.1 to 56.0
3-6 Branches	UTP-J0906A	UTP-J1806A
3-8 Branches	UTP-J0908A	UTP-J1808A
cooling capacity of indoor unit (kW)		28.1 to 56.0
	3-8 Branches 3-6 Branches	3-8 Branches UTR-H0908L 28.0 or less  3-6 Branches UTP-J0906A

### Outdoor unit Branch kit

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

### EV Kit

Model name	UTR-EV09XB	UTR-EV14XB
Application Model	ASYE04GACH ASYE07GACH ASYE09GACH	ASYE12GACH ASYE14GACH

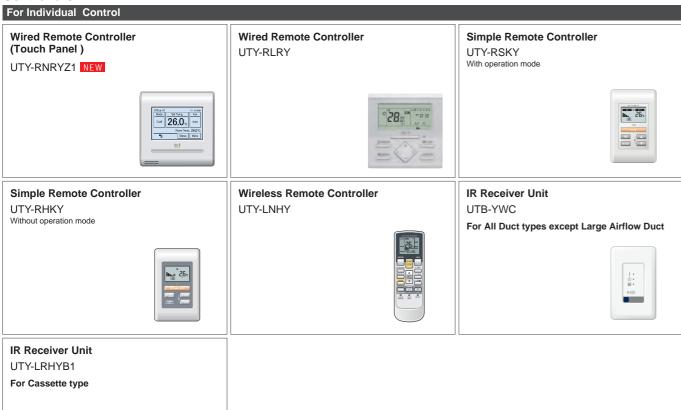
### RB Unit

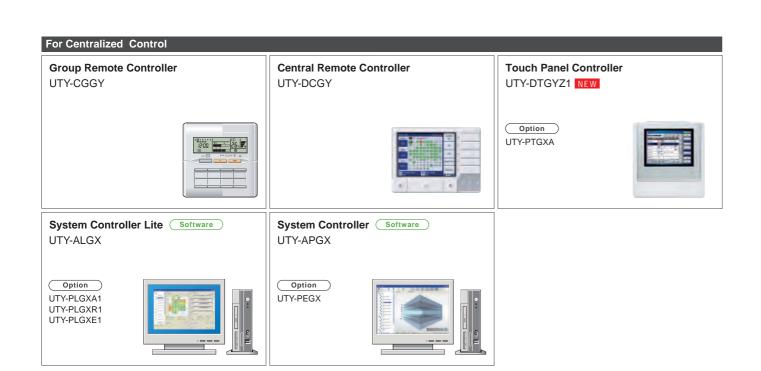
Туре			Multi type			
Model name		UTP-RX01AH UTP-RX01BH UTP-RX01CH		UTP-RX01CH	UTP-RX04BH	
Power source			Single phase	e 230V, 50Hz		
Input power	W	17	24	31	96	
Number of branches		1	1	1	4	
Maximum capacity of connectable indoor units(Q)	kW	Q ≦ 8.0	Q ≦18.0	Q ≦ 28.0	Q ≦ 56.0 *1	
Maximum capacity of connectable indoor units per branch(Q)	kW	Q ≦ 8.0	Q ≦18.0	Q ≦ 28.0	Q ≦ 18.0	
Maximum number of connectable indoor units per branch		3	8	8	8	
Dimensions (HxWxD)	mm		198×298×268			

<sup>\*1:</sup> In case of two RB units connected in series ( total 8-branches ), maximum capacity of connectable indoor units is up to 56.0kW.

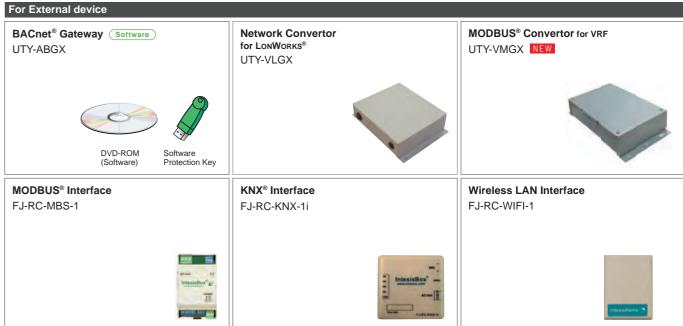
# **Optional Parts**



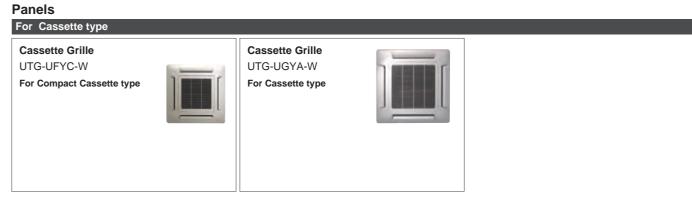




### Convertors / Adaptors

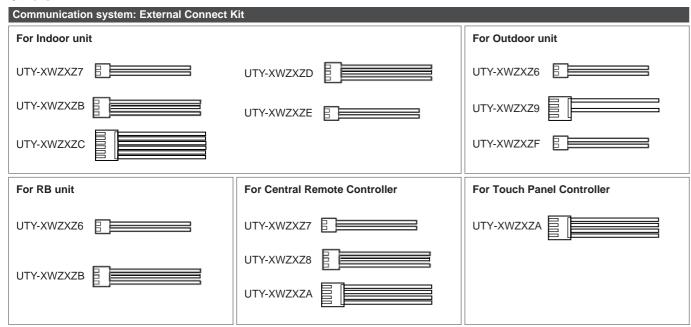






# **Optional Parts**

### Others

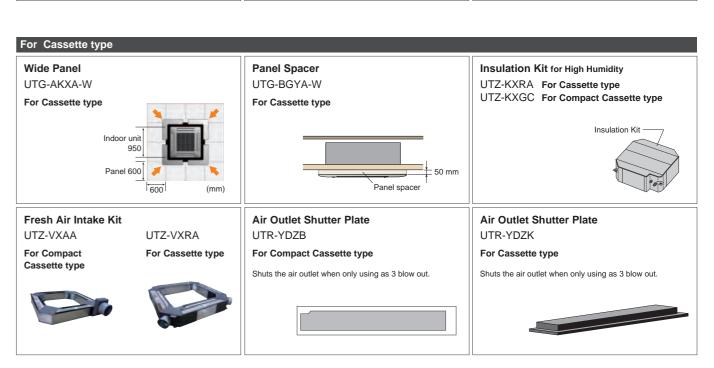


### **Function list**

		I				
				Cont	Other	
		Indoor unit	Outdoor unit	Central Remote Controller	Touch Panel Controller	RB Unit
	Operation / Stop	UTY-XWZXZD UTY-XWZXZB				
	All On / All Off			UTY-XWZXZ7 UTY-XWZXZ8	●*3 ○*3	_
	Batch Stop	_	● UTY-XWZXZ6			_
	Forced Stop	UTY-XWZXZD UTY-XWZXZB				_
5	Emergency Stop	UTY-XWZXZD UTY-XWZXZB	UTY-XWZXZ6	UTY-XWZXZ7 UTY-XWZXZ8	●*3 ○*3	_
Input	Forced Thermostat off	● UTY-XWZXZE ○ UTY-XWZXZ7				
	Low Noise Mode Operation		● UTY-XWZXZ6			
	Cooling / Heating Priority		● UTY-XWZXZ6 <sup>*1</sup>			● UTY-XWZXZ6 ○ UTY-XWZXZB
	"Outdoor Unit Operation Peak Control"		● UTY-XWZXZ6			
	"Power Usage Information from Electricity Meter"		● UTY-XWZXZF		●*3 ○*3	
	Operation Status	● UTY-XWZXZC	○ UTY-XWZXZ6	O UTY-XWZXZA	O UTY-XWZXZA	
	Error Status	● UTY-XWZXZC	○ UTY-XWZXZ6	O UTY-XWZXZA	O UTY-XWZXZA	_
Output	Indoor Unit Fun Operation Status	● UTY-XWZXZC				_
	Auxiliary Heater Output	● UTY-XWZXZC*2	_	_	_	_
	Base Heater	_	● UTY-XWZXZ9			

- \*1. Heat Pump type only
- \*2. Duct type only
  \*3. Touch Panel Controller has these functions for Dry contact and Apply voltage, however, above External Connect Kit is not necessary because Touch Panel Controller has an external input terminal block.

For Duct type **Remote Sensor Unit** Flange (Round) Flange (Square) UTD-SF045T UTY-XSZX UTD-RF204 For Medium Static Pressure Duct type / For Medium Static Pressure Duct type For All Duct type Ceiling type New amenity space can be offered by installing the Remote sensor. Long-Life Filter **Auto Louver Grille Kit Drain Pump Unit** UTD-LF25NA UTD-LF60KA UTD-GXTA-W (for ARXD04/07/09/12/14GALH, UTZ-PX1BBA ARXK07/09/12/14GCLH) For Medium Static For High Static For Low Static Pressure Duct type UTD-GXTB-W (for ARXD18GALH, Pressure Duct type Pressure Duct type UTD-GXTC-W (for ARXD24GALH, UTZ-PX1NBA ARXK24GCLH) For Medium Static Pressure Duct type For Slim Duct type / Mini Duct type





138 139

● : Dry Contact ○ : Apply Voltage

# **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. System operates both Heating mode and Cooling mode.

### **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 gives each patient or each room individual control of their room temperature.

### **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.

### **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.

### **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.

### **FRESH AIR**

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.

### **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 the classrooms that are occupied. Set temperature can pre-programmed to meet the energy budget for the school district.

### **COMFORT**

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

# **Applications**

### **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.

### QUIE1

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

### 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.

### QUIET

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

### **ZONING**

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

### CONTROL

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

### **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.

### **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.

### 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.



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ISO 9001 ISO 14001 Certified number: 01 100 79269 Certified number: CNBJ311153-UK Fujitsu General (Shanghai) Co., Ltd.

ISO 14001 BUREAU VERITAS



ISO 9001 ISO 14001 Certified number: 15914Q10065R4M Certified number: 15912E10022R3M Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.





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