

# **OGENERAL**



# CREATION OF COMMON OF COMM

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 high efficiency.





Heat Pump type for heating or cooling operation





#### 4 HP - 6 HP 6 Models

- Single phase: 4 HP to 6 HP/3 models
- 3 phase: 4 HP to 6 HP/3 models

P46~

# For **LARGE** BUILDING Heat Pump Modular type for heating or cooling operation Production by order 8 HP - 54 HP 39 Models • Space saving combination: 8 HP to 54 HP/24 models • Energy efficiency combination: 16 HP to 46 HP/15 models P50~

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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

2001

10HP / Heat recovery & Heat pump

2003

10HP / Heat recovery 8,10HP / Heat pump & Cooling



AIRSTAGE \$

2007

8 to 42HP / Heat pump



AIRSTAGE V

2009

High efficiency and Compact design model Extensive lineup from 8HP to 48HP in 2HP increment / Heat pump



AIRSTAGE V-

2012

High efficiency and Compact design model 8 to 48HP / Heat Recovery



AIRSTAGE VR-II

#### **=**

#### For Residential & Light Commercial Use

2004

Small VRF series is released. 6HP / Heat pump



AIRSTAGE J

2011

High efficiency and small capacity model 4HP to 6HP / Heat pump



AIRSTAGE J-

2014

High efficiency and compact design model 4HP to 6HP / Heat pump



AIRSTAGE J-IIS

2016

High efficiency and small capacity model 4HP to 6HP / Heat pump



AIRSTAGE J- III

AIRSTAGE™ History

1936 Established as Yaou Shouten Ltd. - 2016

1936

Established as Yaou Shouten Ltd.

1971

Air conditioner exports to Middle East.

Certification Acquisition of

ISO14001

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.



#### AIRSTAGE J-III

Tropical spec model High efficiency and compact design model 4HP to 6HP / Heat pump



#### 2013

Tropical spec model Extensive lineup from 8HP to 42HP in 2HP increment / Heat pump



AIRSTAGE V-II 🌆

#### 2015

High efficiency and large capacity model. Extensive lineup from 8HP to 54HP in 2HP increment / Heat pump



AIRSTAGE V- ${
m III}$ 

#### 2016

Tropical spec model
Extensive lineup from 8HP to 54HP in 2HP increment / Heat pump



AIRSTAGE V-III 🌆

#### AIRSTAGE J-IIIL

High efficiency and compact design model 10HP to 12HP / Heat pump



# 2017

#### **New Product Initiatives**

Fujitsu introduced inverter technology which used R410A refrigerant.



#### **RoHS Compliant**

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



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



## **WORLD WIDE LOCATIONS**

Promoting Globalization from a global perspective while emphasizing the actual local situation in the field under the aim of advancing our five-base system (Europe, Middle East, Asia & Oceania, Americas, and Japan)





Fujitsu General Orient International Electronics Sales (Shanghai) Co., Ltd. (China)



Fujitsu General (Taiwan) Co., Ltd.



Fujitsu General (EURO) GmbH



Fujitsu General (Thailand) Co.,Ltd. Bangkok Office



Fujitsu General (U.K.) Co., Ltd. (U.K.)



Fujitsu General (Asia) PTE. Ltd. (Singapore)



Fujitsu General Air Conditioning (UK) Limited





Fujitsu General (Aust.) Pty Ltd. (Australia)



Fujitsu General New Zealand Ltd. (New Zealand)



Fujitsu General (Middle East) FZE



Fujitsu General Do Brasil Ltda.(Brasil)



Fujitsu General America, Inc.



FUJITSU GENERAL SOLUTION CENTER "THE AIRSTAGE"

# **GLOBAL BUSINESS ACTIVITIES**

We are engaging in advertising, human resource development, CS activities, and social contribution activities worldwide. These activities have been recognized throughout different regions by the awards we have been honored with.

#### North/South **America**



AHR Expo



HVAC trade show in Brasil





#### Middle East

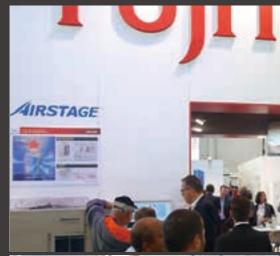




Technical seminar



#### Еигоре





HVAC trade show in Europe countries



Presentation & training

#### International authoritative design awards



"Dealer Design Awards" of "the NEWS"



HVAC & PLUMBING) in







is given each year by "iF International Forum Design GmbH" for industrial products from around the world.







#### **Oceania**



HVAC trade show in Australia





Service & Maintenance

#### Asia



New Product Presentation Meeting, Sales store awards



FG TAIWAN Entire employee workshop







reddot design award winner 2012

The product design award dot", is an internationally recognized quality seal.





Awards "Most Efficient Air



Satisfied Customers Award



Engineering Luban Prize



The Good Design Award is sponsored by the Japan Institute of Design Promotion and is awarded once a year for an item of excellent design.

# PROJECT REFERENCE

Our product is popular because of its high quality, energy saving, and easy installation, and so has been installed in a wide range of building types including high-rise office buildings, stores, hotels, public facilities, schools, hospitals and residential.



Fujitsu General's Products have been installed in over 50 countries worldwide.









#### For LIGHT COMMERCIAL

- 1 Shop in Asia
- 2 Restaurant in Middle East
- 3 Office in Europe
- 4 Hotel in Oceania
- 5 School in U.S.A.
- 6 Hospital in Asia







#### For COMMERCIAL

- 7 Office in Europe
- 8 Office in Europe
- 9 Hotel in Asia









#### For RESIDENTIAL

- 10 Residential in Europe
- Residential in Europe Residential in Oceania
- 12 Residential in Middle East

# **GLOBAL DEVELOPMENT & PRODUCTION BASES**

R&D centers are set up in five countries of Japan, Europe, Asia, China and North America in the world. We pursue the environmental property and comfort to meet each area needs.



# R&D Center



R&D Center in Fujitsu General (Shanghai)



R&D Center in Fujitsu General Engineering (Thailand)



R&D Center in Fujitsu General (EURO) GmbH (Germany)



R&D Center in Fujitsu General America

# Overseas Manufacturing Companies



- Fujitsu General Engineering (Thailand) Co., Ltd. R&D Center
   FGA (Thailand) Co., Ltd.
- TCFG Compressor (Thailand) Co., Ltd.





F.G.L.S. Electric Co., Ltd.



Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



FGA (Thailand) Co., Ltd.



Fujitsu General (Thailand) Co., Ltd. Fujitsu General Engineering (Thailand) Co., Ltd.



TCFG Compressor (Thailand) Co.,Ltd.



# HIGH QUALITY DEVELOPMENT & PRODUCTION

Fujitsu General is one of Japan's leading manufacturers with an R&D Center in Japan. We provide customers with the highest quality and performance using these facilities.

## Advanced Research Facility and Equipment

#### Performance Testing



Air Volume Measurement Room Measure air volumes of the air conditioners from compact RAC models to VRF.



Calorimeter

Measure the cooling/heating capacity by measuring the inlet and outlet temperatures, humidity, and air volume of the air conditioner.



**Silent Room**Measure the operating sounds of air conditioners with the sound reflection-proof walls and ceiling.

Reliability Testing



Constant Temperature Room
Check on the product
performance in cooling/heating
operation under the various
temperature and humidity
conditions.



Practical Test Room

Check on whether the air conditioners performance under the actual house conditions is sustainable.



Shower Test Room
Check on whether the electrical box of the outdoor unit is protected by rain waters with typhoon like wind.

Transportation & Handling



Compressibility testing



Vibration testing

### **Testing Laboratory**

Fujitsu General EMC Laboratory Limited







60 m Height Difference Testing Tower

Objective is to confirm oil circulation of compressor for reliability



## **FACILITIES**



## **High Product Quality Assurance**

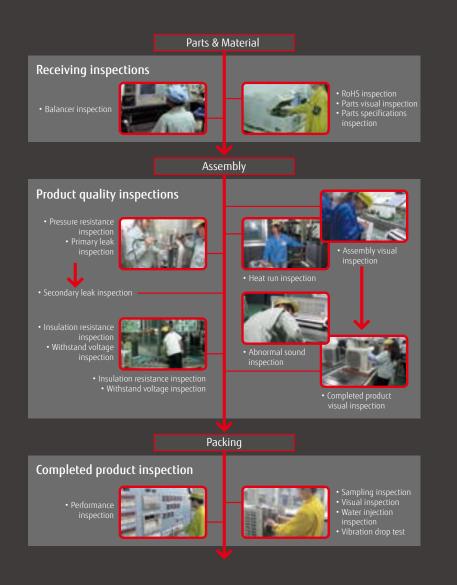
All Fujitsu General factories have acquired ISO 9001, and have built a quality control system common around the world. High quality products are offered to all over the world based on stringent quality inspections.

#### Receiving inspection

Parts procurement requires a supplier's test report. European regulation RoHS inspection is also performed by special test department in-house. Total number inspection is performed especially on main parts to remove defectives.

#### Stringent product quality inspection

Stringent quality inspection is carried out at all production processes. High quality is maintained by stringent checks by inspectors and repetitive inspection.



# **OUR SOLUTION FOR ALL**

Fujitsu General provides the best solutions suitable for properties.

#### **Solution Point**



# **PROPERTIES**

#### **Target Property**



#### LIGHT COMMERCIAL

For Small offices, Hotels, School, Shops and Restaurant etc.

We offer comfortable and economical air conditioning systems focused on small to medium-sized buildings.





## COMMERCIAL

For Large Building

We provide single and modular type VRF systems designed for high efficiency, comfort, freedom of design, easy installation and high reliability.





**Light Commercial** 

# APARTMENT, VILLA

Fujitsu General offers the small VRF system to match from large living rooms to bedrooms for apartment and villa.



#### **APARTMENT**





Medium Static Pressure Duct

# Small space air conditioning

#### Space saving

Mini duct type with 198 mm height and 450mm depth. This can be installed in narrow ceiling space easily.



Mini Duct



conditioning in a family room



# Small space air conditioning

Various ranges of low capacity indoor units to suit small space such as a guest room



Compact Wall Mounted

# Comfortable dining air conditioning with powerful airflow



Large Wall Mounted

#### **Light Commercial**

# **HOTELS**

Fujitsu General provides perfect total air conditioning systems that take into account comfort, energy saving, external appearance, safety and easy installation for small low-rise hotels.



# Large space air conditioning in the reception and lobby

Ultra-large duct type single split system suitable for large spaces with high ceilings



# Simple Remote Controller with sophisticated design

Suitable for hotels or offices as it is easily operated with no complex functions.

Large LCD screen & simple operation buttons White colored backlight on monitor enable easy operation in dark.



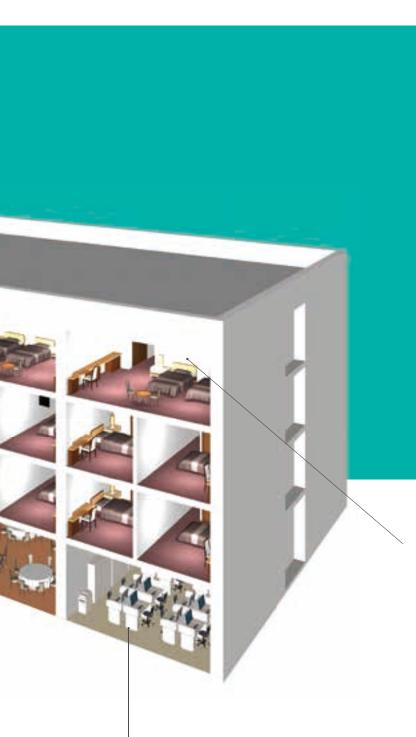


#### Ventilation of the whole hotel supported

Outdoor air processing is essential in hotel spaces with a high degree of airtightness. The DX-Kit can link up with air conditioners to ensure sufficient ventilation.

This system can be expanded.







System controller

#### Centralized control of air conditioning in shared spaces

Air conditioning in shared spaces such as lobbies and hallways is controlled centrally. Temperature and operating conditions can be managed without the adjustment by guests.

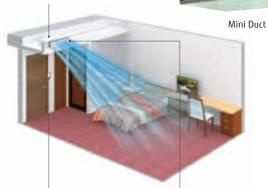




#### Guest room air conditioning with excellent comfort, energy saving and easy installation

#### Space saving

Mini duct type with 198 mm height and 450 mm depth. This can be installed in narrow ceiling space easily.



#### Card key switch available

Using the card key prevents you from forgetting to switch off the air conditioner.



Use of an external connect switch

#### Comfortable airflow that switches up and down air directions

The Auto Louver Grille Kit achieves comfortable airflow by adjusting the air direction.



Auto Louver Grille Kit

#### **Light Commercial**

# SCHOOL

Fujitsu General provides the optimal number of connected indoor units for mid-sized educational institutions. The degree of freedom of the installation location selection is improved with a compact design that minimizes the installation area. Even one outdoor unit can cover the entire school building.

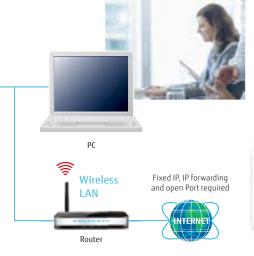




Touch Panel Controller UTY-DTGYZ1

# New centralized remote controller with improved operability

Temperature management of each classroom and one week operation control management/settings are supported easily. This controller makes energy saving management possible with upper/lower temperature limit settings and operation prohibited settings.



LAN

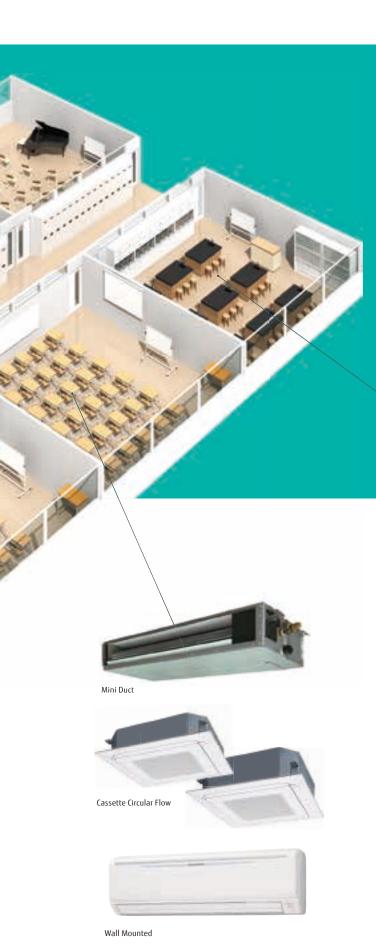
# Control and monitoring

The same management as with the main unit is possible even if you are at your desk. Non-administrators can also operate the air conditioners with a PC, Smartphone or tablet.



Smartphone





#### Various indoor units

We have a lineup of indoor units that can also support complex applications – from normal classrooms to special classrooms and auditoriums. Air conditioners can be also added easily.



#### Comfortable room air conditioning without airflow feeling

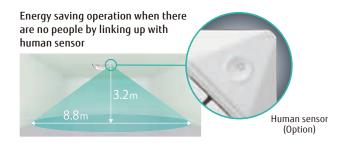
Circular Airflow Cassette blows out in all directions without temperature unevenness



Individual airflow direction control to prevent people from being exposed to airflow







**Light Commercial** 

# RESTAURANT, SHOPS

Fujitsu General provides perfect total air conditioning systems that offer smooth support by tenant, by purpose and by customer visit frequency in shops and restaurants with multiple lighting and a high density of customers.



#### **RESTAURANT**



Cassette Circular Flow Series For ambiences with dim lightings



# Appropriate air conditioning in the atrium space

Appropriate air conditioning of the high ceiling and glass-sided atrium space with a large duct system







# Color variations by two panels

Both black and white panels are available for Cassette type. Black panel is suitable for the dark place such as a restaurant with atmosphere. White panel is usually used at bright areas such as offices. (Available to single split and VRF indoor units)





### Uniform temperature air conditioning

Achieve a comfortable air conditioning spread to every corner of the room by circular flow & wide vertical airflow.





Commercial

# LARGE BUILDING

Fujitsu General provides modular type VRF systems that seek high efficiency, comfort, design freedom, easy installation and reliability for skyscraper buildings.





# Individual air conditioning system for large buildings

VRF series lineup to meet various needs such as energy saving-orientated models and models compatible with a high outdoor air temperature of  $52^\circ\text{C}$ 





#### 8 HP - 54 HP 39 Models

- Space saving combination: 8 HP to 54 HP/24 models
- Energy efficiency combination: 16 HP to 46 HP/ 15 models

# Centralized control of both air conditioning and lighting

It is possible to perform centralized control to stop the operation of lighting and ventilation equipment in addition to air conditioner. This is useful in energy saving management over the whole building.

System Controller Lite

VRF indoor units

Facilities

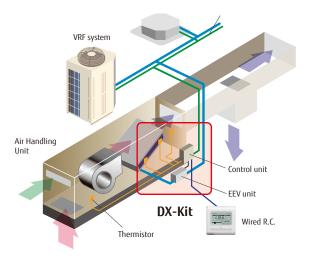
Lightning Ventilation Energy Recovery Ventilator





#### Ventilation(AHU) linked with **VRF** system

Fujitsu General's DX-Kit enable other manufacture's air handling units (AHU) to be incorporated into a Fujitsu VRF system. Possible to control comfortable air conditioning and ventilation.



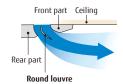
#### 4-way Flow Cassette



#### 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.





High ceiling mode



#### Difference in height Up to 110 m

The height difference between the outdoor unit and the indoor unit is usually 50 m for the V-III series, but by installing the pressure sensor kit it is possible to expand it to 110 m. (\*This product can be used connected only V-III tropical series.)



Pressure Sensor Kit



# 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
HIGH RELIABILITY
DESIGN FLEXIBILITY
MORE COMFORT
EASY INSTALLATION
EASY SERVICE & MAINTENANCE





## Highly Energy Efficiency

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

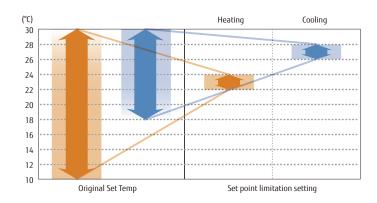




#### Operation Performance is Efficiently Controlled.

## 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.

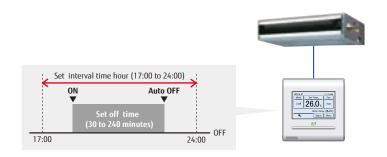


#### Auto-off timer

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.

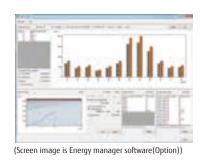
Furthermore a new wired remote controller can set up the interval of time in case operation stops.

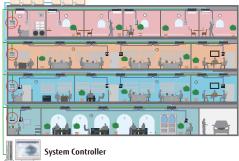




#### **Energy saving management**

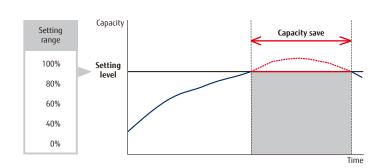
A variety energy saving operations can be set and managed depending on the season, weather, and time period.
Excellent energy saving operation is performed by using System Controller.





#### 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.



## **HIGH RELIABILITY**



## Heavy anti-corrosion treatment design (Light)



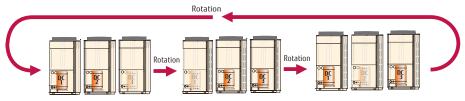


#### Take special notice of the following in order to enhance the anti-corrosion effect.

- Keep the unit free of direct sea breeze as much as possible by installing a windshield plate or placing the unit on the leeward side of the building.
- Arrange the unit so that any salt attached to the enclosure can be washed away by rain.
  Any water left on the bottom of the outdoor unit can increase corrosion. To prevent interference with the water drain, be careful of the tilting angle of the unit.
- Wash the enclosure regularly with water to remove any salt attached.
- Repair any damages on the unit (i.e. scratches) caused during installation or maintenance.
   Check the condition of the unit regularly. (If necessary, retreat the unit for anti-corrosion or make parts replacements.)
- · Make sure the drainage is secured at the foundation.

#### Life-extending operation

Outdoor unit rotational operation The compressor starting order is rotated so that the running time is shared.

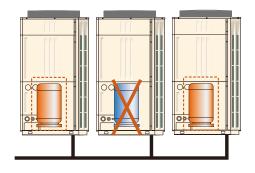


Note: Rotational operation is alternated by the start / stop timing of the compressor

#### **Backup operation**

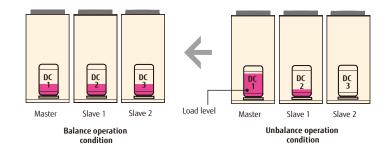
If one compressor fails, backup operation will be performed by the remaining compressors\*.

NOTE: Need to change the Outdoor unit setting in order to perform the Backup



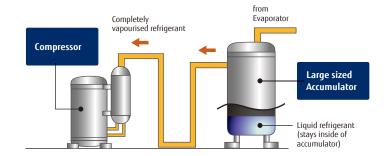
#### Advanced refrigerant control

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.



#### Oil Recovery operation

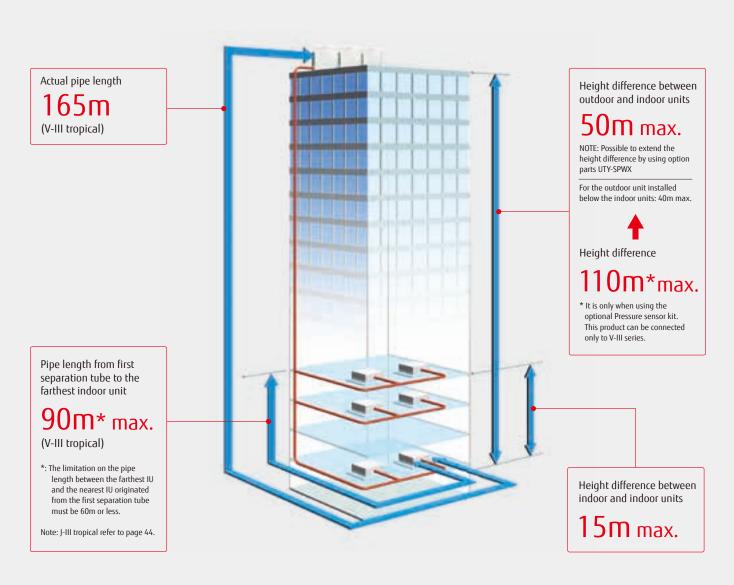
Periodic oil recovery operation is done automatically in order to feed back oil from the indoor unit to compressor.

# **DESIGN FLEXIBILITY**



# Overall piping length 1,000m (For V-III tropical)

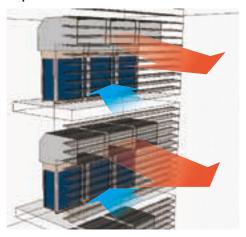
Total pipe length 1,000m max.



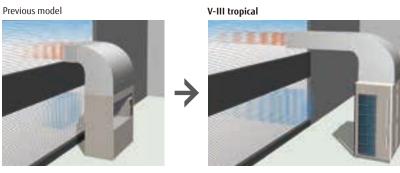
#### High static pressure

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

#### Powerful discharge air prevents a short-circuit.



(V-III tropical)



Large diameter fan and DC motor has been utilized allowing an external static pressure of 82Pa. This is approximately 2.6 times greater than the previous model.

#### High capacity connection



#### High ambient operation design **Linear**



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

#### (°C) Cooling 60 50 40 Heating 30 20 10 0 -10 -20 -15°C -20°C

**AIRSTAGE** V- TROPICAL series

#### AIRSTAGE J- TROPICAL series

Connectable indoor unit

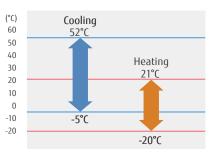
capacity range

50% to 130%

Connectable indoor

unit number

up to 9



<sup>\*.</sup> Note : When a multiple outdoor unit connection is used, operating range is from -5°C to  $52^{\circ}$ C in cooling.

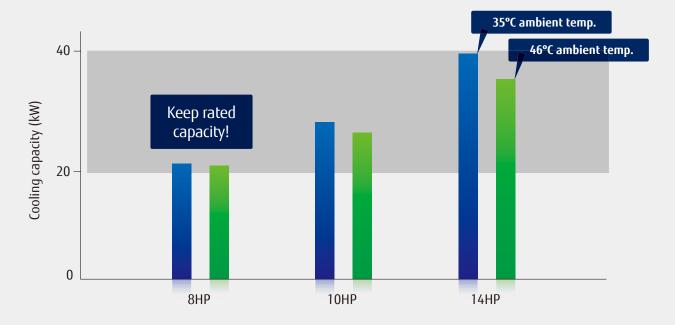
# **MORE COMFORT**



## Powerful cooling capacity design Topical



High cooling power has been realized by adopting large heat exchanger, high capacity DC inverter compressor, sub-cooler equipment, etc.



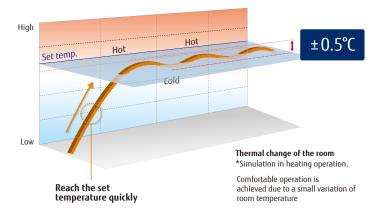
#### Touch Panel Wired Remote Controller

The new wired remote controller has an easy to use LCD touch panel. This new controller has a back light function and can easily control the air conditioner which provides a better energy saving operation of the air conditioner.



### 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.

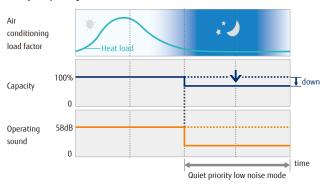


### **Quiet operation**

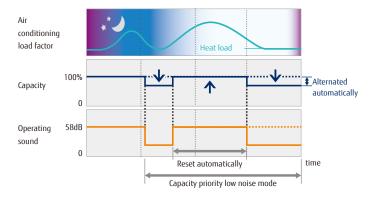
### Low noise mode

Two low noise modes can be selected automatically by guiet 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.

### Quiet priority setting



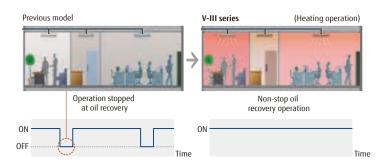
### Capacity priority setting



### 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.



# **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.

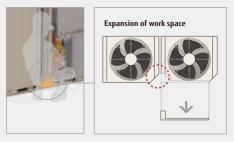


Can be transported in a small elevator



# 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.

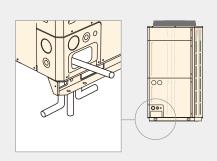




intervals by front access

# Flexible piping connection

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

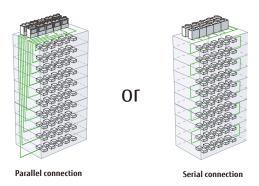




4 way pipe direction

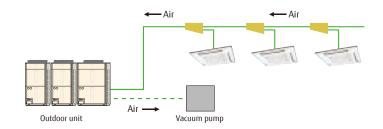
### Simple wiring work

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



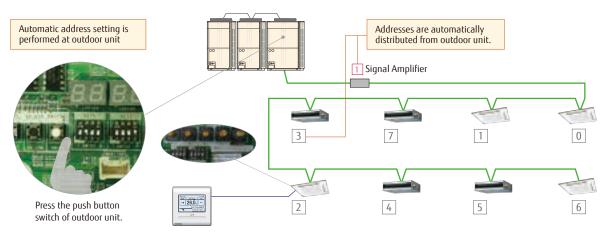
### Easy evacuation - using vacuum mode function

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.







# 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.



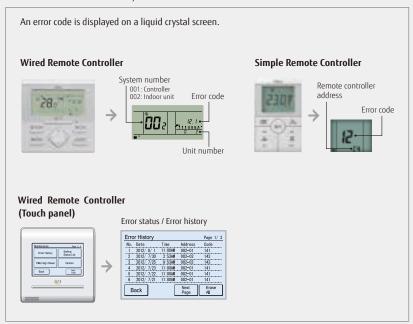
### 7-segment LED

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

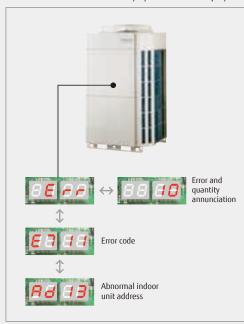
Movable PCB panel Easier for maintenance work behind the PCB



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



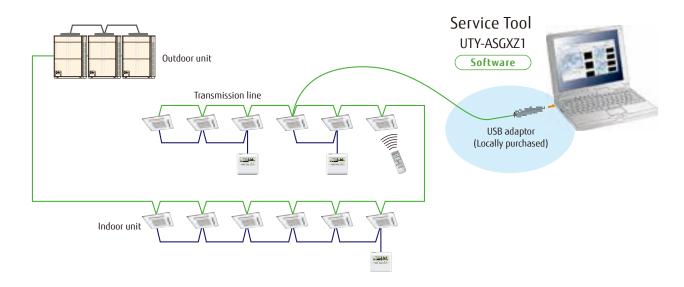
Error status can be checked easily by outdoor unit display



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

### **Connection to Service Tool**

- Detail operation status and recent error history can be checked and analyzed by using the Service Tool.
- Last 5 min. operation memory can be also be recorded.



### Remote monitoring

The Web Monitoring system allows you to view system operation anytime over the internet, ensuring issue free operation. The operating VRF network system in the building can be monitored real time over the Internet.

# VRF Network System Side Outdoor unit Transmission line USB adaptor (Locally purchased) Web Monitoring Tool

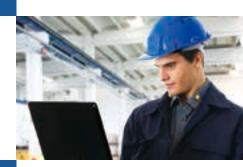


# AIRSTAGE<sup>M</sup> SERIES

6

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# The AIRSTAGE series (V-III tropical & J-III tropical) has a total of 45 models to meet the building Air-conditioning requirement



The AIRSTAGE series outdoor units were developed with structural designs and advanced inverter technology to provide higher efficiency. High durability technology has also been incorporated to ensure long-term use.

AIRSTAGE™ LINE-UP **HEAT PUMP TYPE AIRSTAGE J-III TROPICAL Series HEAT PUMP TYPE AIRSTAGE V-III TROPICAL Series** 



# AIRSTAGE™ LINE-UP

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

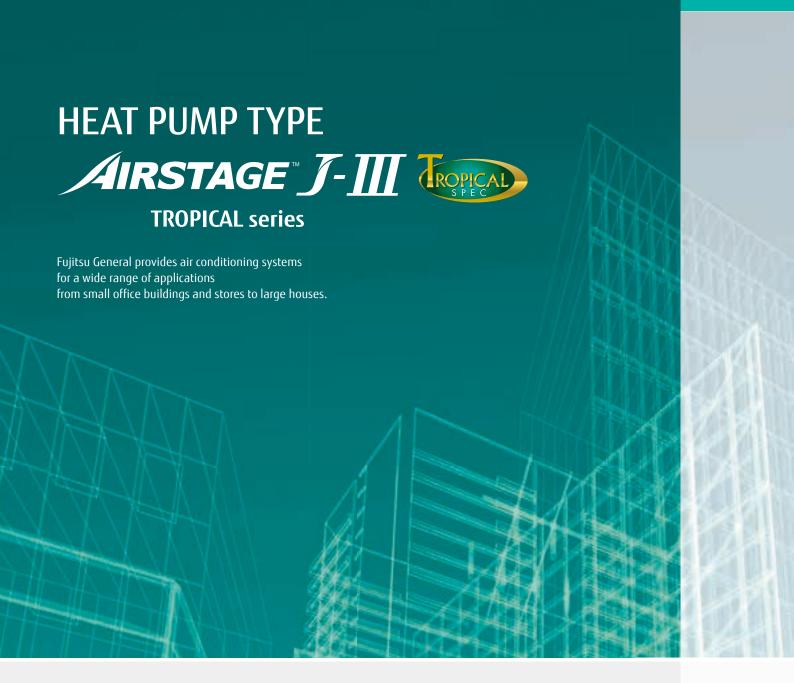
### Outdoor units range

Ī	НР		4	5	6	8	10	12	14	16	18	20	22	24
	BTU/h		36,000	45,000	54,000	72,000	90,000	108,000	126,000	144,000	162,000	180,000	198,000	216,000
Ī	Ton		3.0	3.8	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0
	AIRSTAGE J-∭ TROPICAL series	High Efficiency (Single phase)	AJH040LBTAHN	AJH045LBTAHN	AJH054LBTAHN									
	Heat Pump	High Efficiency (3 phase)	AJH040LETAHN	AJH045LETAHN	AJH054LETAHN									
	AIRSTAGE V- III TROPICAL series	Space saving				AJH072LNTCH	AJH090LNTCH	AJH108LNTCH	AJH126LNTCH	AJH144LNTCH	AJH162LNTCH	AJH180LNTCH	AJH198LNTCH	AJH216LNTCH
	Heat Pump	High Efficiency								AJH144LNTCHH	AJH162LNTCHH	AJH180LNTCHH		AJH216LNTCHH



26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
234,0	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000	450,000	468,000	486,000
19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0	37.5	39.0	40.5
							-							
1701	- 80	101101	10101	250250	1010	man		889	10000	10100		1010000		888
		AA		22					88				888	THE
AJH234LI	TCH AJH252LNTCH	AJH270LNTCH	AJH288LNTCH	AJH306LNTCH	AJH324LNTCH	AJH342LNTCH	AJH360LNTCH	AJH378LNTCH	AJH396LNTCH	AJH414LNTCH	AJH432LNTCH	AJH450LNTCH	AJH468LNTCH	AJH486LNTCH
99	1 200	200					333	BAR	222					
AJH234LN	CHH AJH252LNTCHH	AJH270LNTCHH	AJH288LNTCHH	AJH306LNTCHH	AJH324LNTCHH	AJH342LNTCHH	AJH360LNTCHH	AJH378LNTCHH	AJH396LNTCHH	AJH414LNTCHH				





# System Outline

### **High Energy Efficiency**

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

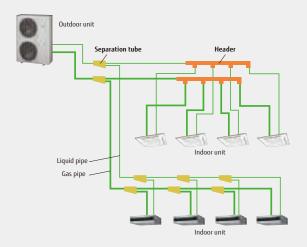
# Flexible systems for small- and medium-size buildings air conditioning

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

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

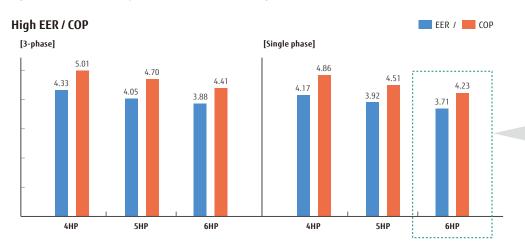
### System configuration example

- 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.



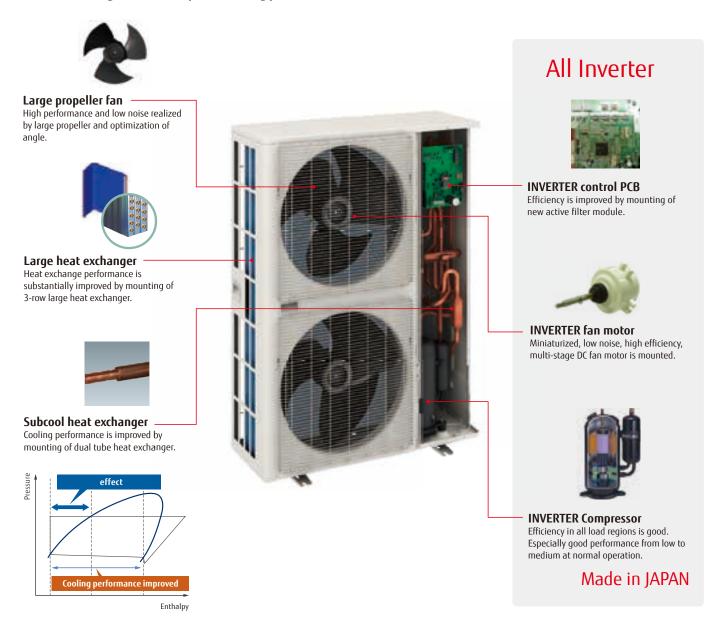
### **Energy efficiency**

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





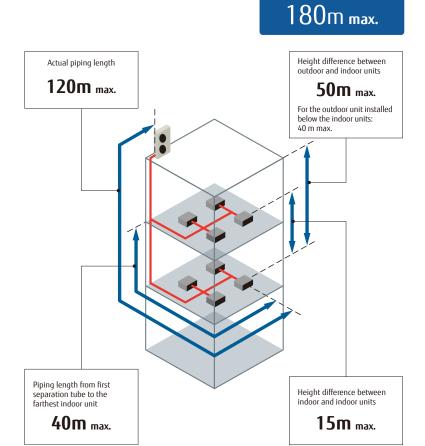
### Advanced high efficiency technology



### 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.

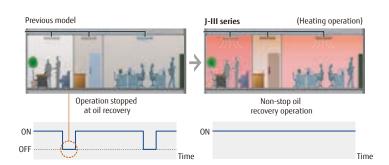




Total pipe length

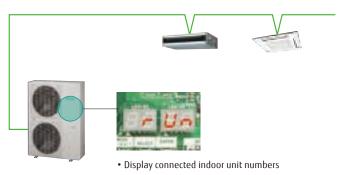
### Non-stop oil recovery operation

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.



• Duplicately set address number of indoor unit can be displayed



### **Specifications**

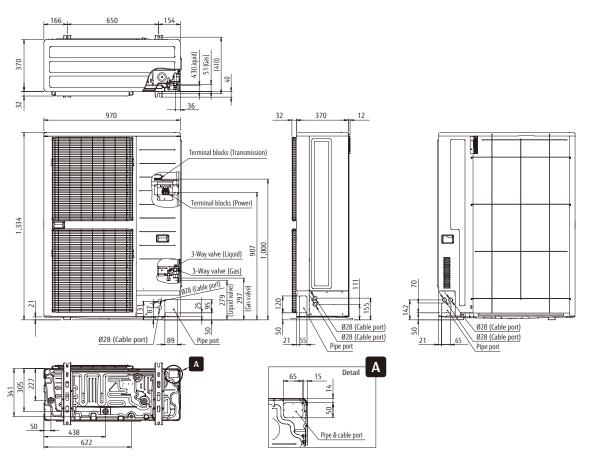
		HP	4	5	6	4	5	6
Rating Capacity rar	nge	Btu/h	36,000	45,000	54,000	36,000	45,000	54,000
		Ton	3.0	3.8	4.5	3.0	3.8	4.5
Model name			AJH040LBTAHN	AJH045LBTAHN	AJH054LBTAHN	AJH040LETAHN	AJH045LETAHN	AJH054LETAHN
Maximum Connect	able Indoor Unit		1-7	1-8	1-9	1-7	1-8	1-9
Power source			9	Single-phase, ~230V, 50H	lz	-	3-phase, ~400V, 50Hz	
	Cooling(T1/T3)	1144	12.1/10.3	14.0/11.1	15.5/11.5	12.1/10.3	14.0/11.1	15.5/11.5
Connection	Heating	kW	13.6	16.0	18.0	13.6	16.0	18.0
Capacity	Cooling(T1/T3)	Btu/h	41,000/35,000	47,500/37,800	52,500/39,000	41,000/35,000	47,500/37,800	52,500/39,000
	Heating	DLU/II	46,000	54,500	61,000	46,000	54,500	61,000
Innut names	Cooling(T1/T3)	kW	2.90/3.47	3.57/3.77	4.18/3.92	2.79/3.30	3.46/3.57	3.99/3.71
Input power	Heating	KVV	2.80	3.55	4.26	2.71	3.40	4.08
Current	Cooling(T1/T3)	A	12.7/15.2	15.7/16.6	18.4/17.2	5.2/6.2	6.6/6.6	7.7/6.9
current	Heating	A	12.3	15.6	18.7	5.0	6.5	7.8
EER	Cooling(T1/T3)	W/W	4.17/2.97	3.92/2.95	3.71/2.94	4.33/3.13	4.05/3.11	3.88/3.10
	Cooling(11/13)	Btu/h/W	14.15/10.10	13.30/10.05	12.60/9.95	14.70/10.60	13.75/10.60	13.15/10.50
СОР	Heating	W/W	4.86	4.51	4.23	5.01	4.70	4.41
COP	Heating	Btu/h/W	16.45	15.35	14.30	17.00	16.00	14.95
Air flow rate	High	m³/h(l/s)	6,200(1,722)	6,400(1,778)	6,900(1,916)	6,200(1,722)	6,400(1,778)	6,900(1,916)
Sound pressure	Cooling	dB (A)	50	51	53	50	51	53
level	Heating	ub (A)	52	53	55	52	53	55
	Height		1,334	1,334	1,334	1,334	1,334	1,334
Net Dimensions	Width	mm	970	970	970	970	970	970
	Depth		370	370	370	370	370	370
Net Weight		kg	120	120	120	120	120	120
Refrigerant		Туре	R410A	R410A	R410A	R410A	R410A	R410A
Connection pipe	Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52
diameter	Gas	111111	15.88	15.88	19.05	15.88	15.88	19.05
Operation range	Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
operation range	Heating	CDB	-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.

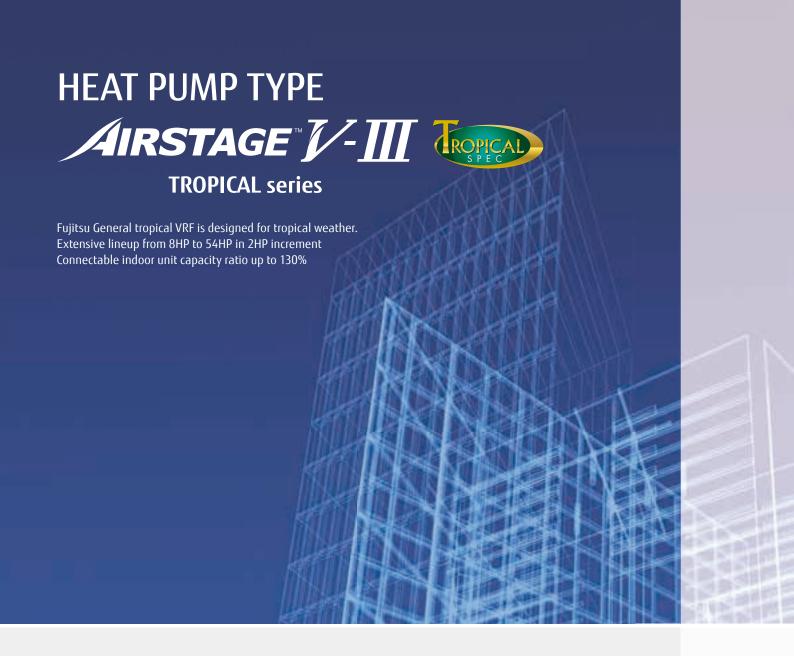
Cooling(T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB Cooling(T3): Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°CDB / 24°CWB Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length: 7.5m. Height difference between outdoor and indoor unit: 0m.

### **Dimensions**

Models: AJH040LBTAHN / AJH045LBTAHN / AJH054LBTAHN / AJH040LETAHN / AJH045LETAHN / AJH054LETAHN



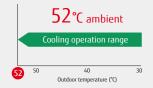
(Unit:mm)



# System Outline

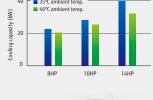
### High ambient operation design

Possible to operate cooling up to 52°C outdoor temperature



# Powerful cooling capacity design

Keeping high cooling power at even high ambient temperature



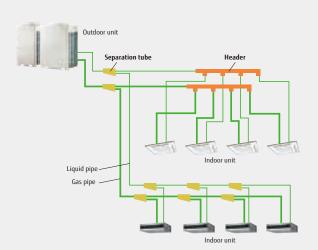
### Anti-corrosion treatment design

All metallic and PCB components are protected against corrosion



### System configuration example

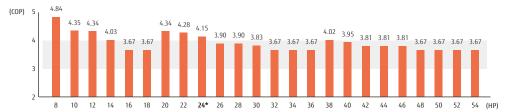
- This system is used for medium-sized and large buildings.
   Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.



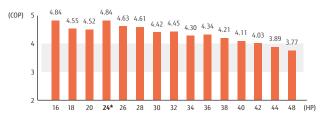
### **Energy efficiency**

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.

### Space saving combination



### **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 \*1. CFD = Computational Fluid Dynamics

# All Inverter



### 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.



### Sine-wave DC inverter control

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



### High efficient & Large capacity DC inverter compressor

Large capacity high efficient DC twin rotary compressor with 0.1Hz steps compressor speed control





### Subcool heat exchanger -

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.



### 4-face heat exchanger

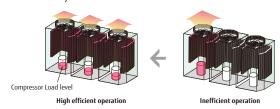
Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.

Front intake port (corner cut air inhaling structure)

### Advanced energy saving control

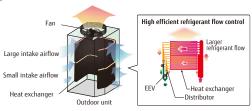
### Multiple outdoor operation control

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

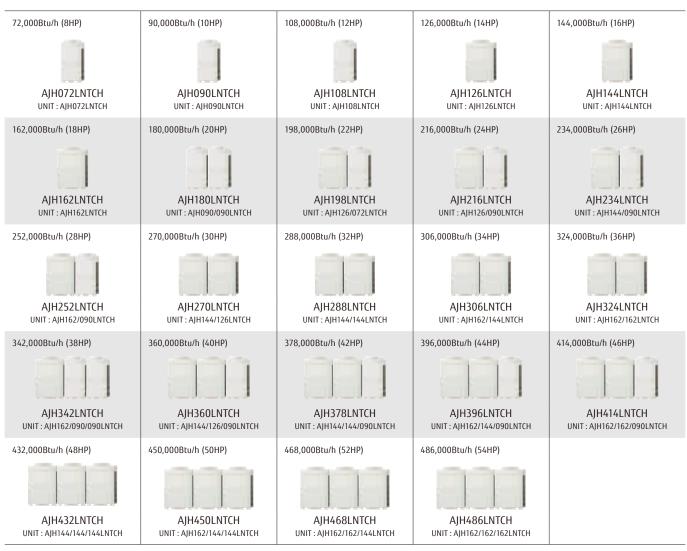
The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.



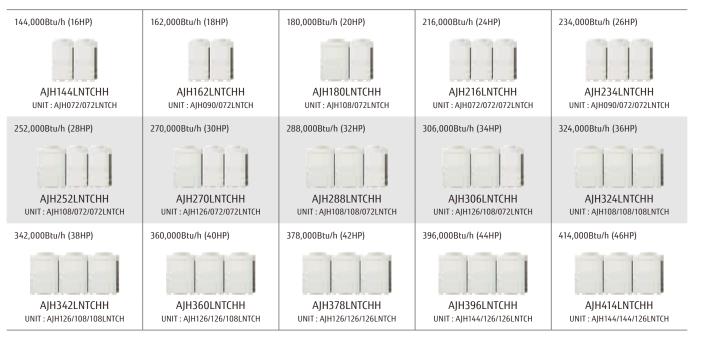
### Outdoor units lineup

• Combinations other than the followings are not recommended.

### Space saving combination



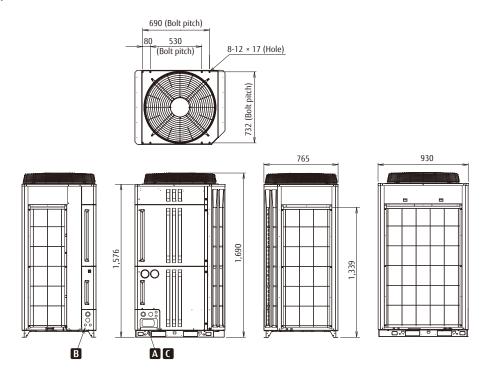
### **Energy efficiency combination**





### **Dimensions**

8,10HP: AJH072LNTCH / AJH090LNTCH (Unit:mm)



**12,14,16,18HP**: AJH108LNTCH / AJH126LNTCH / AJH144LNTCH / AJH162LNTCH

1,000 (Bolt pitch) 840 (Bolt pitch) 8-12×7 (Hole) 732 (Bolt pitch) 765 1,240 <u>.00</u> AC B Left side knockout position Front side knockout position
73 | | Ø 34.5 Bottom side knockout position Ø 43.7 Power supply cable port 0 Ø 22.2 Transmission ão cable port

(Unit:mm)

### **Space Saving Combination**

			HP	8	10	12	14	16	18	20	22	24	26	28
Rating Capac	ity range		Btu/h	72,000	90.000	108.000	126,000	144,000	162,000	180.000	198,000	216,000	234,000	252,000
Rating capac	ity range		Ton	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0
Model name			1011	AJH072LNTCH	AJH090LNTCH	AJH108LNTCH	AJH126LNTCH	AJH144LNTCH	AJH162LNTCH	AJH180LNTCH	AJH198LNTCH	AJH216LNTCH	AJH234LNTCH	AJH252LNTCH
Unit 1				AJH072LNTCH	AJH090LNTCH	AIH108LNTCH	AJH126LNTCH	AJH144LNTCH	AJH162LNTCH	AJH090LNTCH	AJH126LNTCH	AIH126LNTCH	AJH144LNTCH	AJH162LNTCH
Unit 2				AJHU/ZENICH	AJHUJULNICH	AJITIUOLIVICI	AJHIZOLIVICH	AJH144LNICH	AJHIOZENICH	AJH090LNTCH	AJH072LNTCH	AJH090LNTCH	AJH090LNTCH	AJH090LNTCH
Unit 3										7,110302.111611	7,110722111611	7,110302.1116.11	/ initiation	7,110302.1116.11
	nnectable Indoo	Ilnit		13	16	19	23	26	29	33	36	40	43	46
	nectable capacity	Cooling	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
Power source	1	1							se 4 wire, 400 V					
		Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0
	Capacity	Heating		25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5
	,	Cooling	Btu/h	76400	95500	114300	136500	153500	170600	191000	212900	232000	249000	266100
		Heating		85300	107500	128000	153500	170600	170600	215000	238800	261000	278100	278100
	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
T1	put poirt.	Heating		5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88
condition	Current	Cooling	A	9.2	12.0	15.0	17.7	20.7	26.1	-	-	-	-	-
		Heating	^	9.2	12.2	14.6	18.2	21.5	21.5	-	-	-	-	-
	EER	Cooling	W/W	4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27
	COP	Heating	**/**	4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90
	EER	Cooling	Btu/h/W	14.7	13.1	12.8	12.5	11.8	10.3	13.1	13.2	12.7	12.3	11.2
	COP	Heating	DLU/II/W	16.5	14.8	14.8	13.7	12.5	12.5	14.8	14.6	14.2	13.3	13.3
	Capacity		kW	20.2	25.2	28.5	32	35.1	35.2	50.4	52.2	57.2	60.3	60.4
	Capacity		Btu/h	68900	86000	97200	109200	119800	120100	172000	178100	195200	205800	206100
T3	Input power	Caaliaa	kW	6.73	9.20	9.34	10.70	11.82	12.35	18.39	17.44	19.90	21.02	21.55
condition	Current	Cooling	A	10.8	14.5	14.7	16.9	18.6	19.2	-	-	-	-	-
	FFD	1	W/W	3.00	2.74	3.05	2.99	2.97	2.85	2.74	2.99	2.87	2.87	2.80
	EER		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
Power factor			%	90	92	92	92	92	93	-	-	-	-	-
Air flow rate		High	m³/h	11100	11100	13000	13000	13700	13700	11100×2	13000+11100	13000+11100	13700+11100	13700+11100
		Cooling	10 (4)	56	58	57	60	62	63	61	61	62	63	64
Sound pressu	re level	Heating	dB (A)	58	59	60	62	64	64	62	63	64	65	65
External stati	ic pressure (Max)		Pa	82	82	82	82	82	82	82	82	82	82	82
Compressor	notor 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
Heat exchang				Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	,	Height		1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
Dimensions		Width	mm	930	930	1240	1240	1240	1240	930×2	1240+930	1240+930	1240+930	1240+930
		Depth	1	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	255	255	279	279	279	279	255×2	279+255	279+255	279+255	279+255
		Тур		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant		Charge	kg	11.7	11.7	11.8	11.8	11.8	11.8	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7
		Liquid	ng	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88
Connection p	ipe diameter	Discharge Gas	mm	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92
		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
Operation rai	nge	Heating	*CDB	-13 to 32	-13 to 32	-13 to 32	-13 to 32	-13 to 32	-13 to 32	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
-		neating		-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-20 (0 21	-201021	-201021

### **Energy Efficiency Combination**

			HP	16	18	20	24	26	28	30	32
Rating Capacit	ty range		Btu/h	144,000	162,000	180,000	216,000	234,000	252,000	270,000	288,000
	-		Ton	12.0	13.5	15.0	18.0	19.5	21.0	22.5	24.0
Model name				AJH144LNTCHH	AJH162LNTCHH	AJH180LNTCHH	AJH216LNTCHH	AJH234LNTCHH	AJH252LNTCHH	AJH270LNTCHH	AJH288LNTCHH
Unit 1				AJH072LNTCH	AJH090LNTCH	AJH108LNTCH	AJH072LNTCH	AJH090LNTCH	AJH108LNTCH	AJH126LNTCH	AJH108LNTCH
Unit 2				AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH108LNTCH
Unit 3							AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH	AJH072LNTCH
Maximum Cor	nectable Indooi	Unit		26	29	33	39	43	46	50	52
Indoor unit con	nectable capacity	Cooling	kW	22.4-58.2	25.2-65.5	28-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2
Power source							3-phase 4 wir	e, 400 V, 50Hz			
		Cooling	1.147	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4
		Heating	kW	50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0
	Capacity	Cooling	Dr/b	152800	171900	190700	229200	248300	267100	289300	305000
		Heating	Btu/h	170600	192800	213300	255900	278100	298600	324100	341300
	Innuit name	Cooling	kW	10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12
T1	Input power	Heating	KVV	10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47
condition	Current	Cooling	A	-	-	-	-	-	-	-	-
	Current	Heating	A	-	-	-	-	-	-	-	-
	EER	Cooling	W/W	4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87
	COP	Heating	VV/VV	4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45
	EER	Cooling	Btu/h/W	14.7	13.8	13.5	14.7	14.0	13.8	13.5	13.2
	COP	Heating	DLU/II/W	16.5	15.5	15.4	16.5	15.8	15.7	15.1	15.2
	Capacity		kW	40.4	45.4	48.7	60.6	65.6	68.9	72.4	77.2
	Capacity		Btu/h	137800	154900	166100	206700	223800	235000	247000	263300
T3	Input power	Cooling	kW	13.47	15.93	16.08	20.20	22.66	22.81	24.17	25.42
condition	Current	Cooling	A	-	-	-	-	-	-	-	-
	EER		W/W	3.00	2.85	3.03	3.00	2.89	3.02	3.00	3.04
	EEK		Btu/h/W	10.23	9.72	10.33	10.23	9.87	10.30	10.22	10.36
Power factor			%	-	-	-		-	-	-	-
Air flow rate		High	m³/h	11100×2	11100×2	13000+11100	11100×3	11100×3	13000+11100×2	13000+11100×2	13000×2+11100
Sound pressur	o lovel	Cooling	dB (A)	59	60	60	61	62	61	63	61
	e ievei	Heating	UD (A)	61	62	62	63	63	64	65	64
	c pressure (Max)		Pa	82	82	82	82	82	82	82	82
Compressor m	otor 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
Heat exchange	er fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height		1690	1690	1690	1690	1690	1690	1690	1690
Dimensions		Width	mm	1240×2	1240×2	1240+930	930×3	930×3	1240+930×2	1240+930×2	1240×2+930
		Depth		765	765	765	765	765	765	765	765
Weight			kg	279×2	279×2	279+255	255×3	255×3	279+255×2	279+255×2	279×2+255
Refrigerant		Тур		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
gerunt		Charge	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
Connection pi	ne diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05
	pe didilicter	Discharge Gas		28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92
Operation ran	пе	Cooling	*CDB	-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 rain	yc	Heating	CDD	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21



30	32	34	36	38	40	42	44	46	48	50	52	54
270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000	450,000	468,000	486,000
22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0	37.5	39.0	40.5
AJH270LNTCH	AJH288LNTCH	AJH306LNTCH	AJH324LNTCH	AJH342LNTCH	AJH360LNTCH	AJH378LNTCH	AJH396LNTCH	AJH414LNTCH	AJH432LNTCH	AJH450LNTCH	AJH468LNTCH	AJH486LNTCH
AJH144LNTCH	AJH144LNTCH	AJH162LNTCH	AJH162LNTCH	AJH162LNTCH	AJH144LNTCH	AJH144LNTCH	AJH162LNTCH	AJH162LNTCH	AJH144LNTCH	AJH162LNTCH	AJH162LNTCH	AJH162LNTCH
AJH126LNTCH	AJH144LNTCH	AJH144LNTCH	AJH162LNTCH	AJH090LNTCH	AJH126LNTCH	AJH144LNTCH	AJH144LNTCH	AJH162LNTCH	AJH144LNTCH	AJH144LNTCH	AJH162LNTCH	AJH162LNTCH
				AJH090LNTCH	AJH090LNTCH	AJH090LNTCH	AJH090LNTCH	AJH090LNTCH	AJH144LNTCH	AJH144LNTCH	AJH144LNTCH	AJH162LNTCH
50	53	55	55	55	55	55	55	55	55	55	55	55
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
					3-nh	ase 4 wire, 400 V,	50Hz					
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
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
290000	307000	324100	341200	361600	385500	402500	419600	436700	460500	477600	494700	511800
324100	341200	341200	341200	385600	431600	448700	448700	448700	511800	511800	511800	511800
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
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
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
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
3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67
12.1	11.8	11.0	10.3	11.6	12.3	12.1	11.4	10.8	11.8	11.2	10.7	10.3
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
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
229000	239600	239900	240200	292100	315000	325600	325900	326200	359400	359700	360000	360300
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
-	-	-	-	-	-	-	-	-	-	-	-	-
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
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
-	-	-	-	-	-	-	-	-	-	-	-	-
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
64	65	66	66	65	65	66	66	67	67	67	67	68
66	67	67	67	66	67	68	68	68	69	69	69	69
82	82	82	82	82	82	82	82	82	82	82	82	82
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
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin				
 1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
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
765	765	765	765	765	765	765	765	765	765	765	765	765
279×2	279×2	279×2	279×2	279+255×2	279×2+255	279×2+255	279×2+255	279×2+255	279×3	279×3	279×3	279×3
R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
11.8×2	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	11.8×3	11.8×3	11.8×3
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
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
-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				
-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				

34	36	38	40	42	44	46
306.000	324,000	342.000	360.000	378.000	396.000	414.000
25.5	27.0	28.5	30.0	31.5	33.0	34.5
AJH306LNTCHH	AJH324LNTCHH	AJH342LNTCHH	AJH360LNTCHH	AJH378LNTCHH	AJH396LNTCHH	AJH414LNTCHH
AJH126LNTCH	AIH108LNTCH	AIH126LNTCH	AJH126LNTCH	AJH126LNTCH	AJH144LNTCH	AIH144LNTCH
AJH108LNTCH	AIH108LNTCH	AIH108LNTCH	AIH126LNTCH	AIH126LNTCH	AIH126LNTCH	AIH144LNTCH
AJH072LNTCH	AJH108LNTCH	AJH108LNTCH	AJH108LNTCH	AJH126LNTCH	AJH126LNTCH	AJH144LNTCH
55	55	55	55	55	55	55
48-124.6	50.3-130.6	53.5-139.1	56.8-147.5	60-156	62.5-162.5	65-169
		3-	phase 4 wire, 400 V. 50	)Hz		
95.9	100.5	107.0	113.5	120.0	125.0	130.0
107.5	112.5	120.0	127.5	135.0	140.0	145.0
327200	342900	365100	387300	409500	426500	443500
366800	384000	409500	435000	460500	477600	494700
25.12	26.88	28.88	30.88	32.88	34.93	36.98
24.99	25.95	28.47	30.99	33.51	35.97	38.43
-	-	-	-	-	-	-
-	-	-	-	-	-	-
3.82	3.74	3.70	3.68	3.65	3.58	3.52
4.30	4.34	4.21	4.11	4.03	3.89	3.77
13.0	12.8	12.6	12.5	12.5	12.2	12.0
14.7	14.8	14.4	14.0	13.7	13.3	12.9
80.7	85.5	89.0	92.5	96.0	99.1	102.2
275300	291600	303600	315600	327600	338200	348800
26.78	28.03	29.39	30.75	32.11	33.22	34.34
-	-	-	-	-	-	-
3.01	3.05	3.03	3.01	2.99	2.98	2.98
10.28	10.40	10.33	10.26	10.20	10.18	10.16
-	-	-	-	-	-	-
13000×2+11100	13000×3	13000×3	13000×3	13000×3	13700+13000×2	13700×2+13000
62	63	63	64	65	66	66
65	65	66	66	67	68	68
82	82	82	82	82	82	82
11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
1690	1690	1690	1690	1690	1690	1690
1240×2+930	1240×3	1240×3	1240×3	1240×3	1240×3	1240×3
765	765	765	765	765	765	765
279×2+255	279×3	279×3	279×3	279×3	279×3	279×3
R410A	R410A	R410A	R410A	R410A	R410A	R410A
11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
19.05	19.05	19.05	19.05	19.05	19.05	19.05
34.92	41.27	41.27	41.27	41.27	41.27	41.27
-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
-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

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

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



# 14 Type and 124 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.

### **INDOOR UNITS LINE-UP**

**Compact Cassette** 

4-way Flow Cassette

**Circular Flow 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)



# **INDOOR UNITS LINE-UP**

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs. 14 types, 124 models, Capacity range from 7,000 Btu/h to 96,000Btu/h

### Indoor units range

		Btu/h	7,000	9,000	12,000	14,000	18,000	
Capacity range	•	kW	2.2	2.8	3.6	4.5	5.6	
	Compact Cassette		AUXB07GALH AUXB07GATH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	
	4-way Flow	(Slim type)					AUXD18GALH	
Cassette	4-way riuw	(Large type)					AUXA18GALH	
	Greeder Flan.	(Slim type)					AUXM018GTAH	
	NEW Circular Flow -	(Large type)					AUXK018GTAH	
	Mini Duct (With drain pump)		ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	
	Mini Duct (Without drain pump)		ARXK07GALH	ARXK09GALH	ARXK12GALH	ARXK14GALH	ARXK18GALH	
	Slim Duct (With drain pump)		ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	
Duct	Medium Static Pressure Duct		ANADOTANII	AKKOOSOMII	AIXXIII	AMADITAGATI	Alkolodalii	
	High Static Pressure Duct							
							-	
	Large Airflow Duct						ARXN18GATH*2	
	Floor (Same as Ceiling models)				ABHA12GATH	ABHA14GATH	ABHA18GATH	
Floor	Slim Concealed Floor (Same as Slim Duct models)		ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	
Ceiling	Ceiling				ABHA12GATH	ABHA14GATH	ABHA18GATH	
Wall Mounted	Wall Mounted		ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHA18GACH ASHA18GATH	
Wall Mounted	Wall Mounted (EEV external)		ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH	With this model, connection of EV kit is necessary.	

24,000	30,000	34,000	36,000	45,000	54,000	60,000	72,000	90,000	96,000
7.1	9.0	10.0	11.2	12.5	14.0	18.0	22.4	25.0	28.0
=									
AUXB24GALH									
AUXB24GATH									
AUXD24GALH		1/Leading	-	1 inches	-				
	1				1				
AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH				
AUXM024GTAH									
, ioning to initial									
AUXK024GTAH	AUXK030GTAH	AUXK034GTAH	AUXK036GTAH	AUXK045GTAH	AUXK054GTAH				
/IO/IIOZ IGI/III	710711030GIFIII	7,67,1163 147,111	7.07.11.03.00.7.11	76/110 130/111	7.07.103 107.11				
ARXK24GCLH									
AIXAZ-GCET									
ARXK24GALH									
ARXD24GALH ARXD24GATH									
CULTU	CUEW		CUUW!	EUUU.					
ARXA24GBLH	ARXA30GBLH ARXA30GBTH		ARXA36GBLH	ARXA45GBLH ARXA45GBTH					
ARXA24GBTH	ARXA30GBTH		ARXA36GBTH	ARXA45GBTH					MATTER TO
			ARXC36GBTH				ARXC72GBTH*1	ARXC90GBTH*1	ARXC96GATH*1
			Autocodom	BO GOD		H-1	/III/C/Zgbiii	diam'r.	7 HONES OUT HIT
				ARXC45GATH		ARXC60GATH*1	ARXC72GATH*1	ARXC90GATH*1	
2000000	200	300000000000000000000000000000000000000	The second	The second second second					
ARXN24GATH*2	ARXN30GATH*2	ARXN34GATH*2	ARXN36GATH*2	ARXN45GATH*2					
7.10.112	711011130071111	740415 107411	711011130071111	711011113071111					
ABHA24GATH									
ARXD24GALH									
ARXD24GATH									
ABHA24GATH	ABHA30GATH		ABHA36GATH	ABHA45GATH	ABHA54GATH				
ASHA24GACH ASHA24GATH	ASHA30GACH ASHA30GATH								

 $<sup>*1:</sup> ARXC60/72/90/96\ cannot\ be\ connected\ to\ J-III\ tropical\ series.\ *2: Large\ Airflow\ Duct\ can\ be\ connected\ to\ V-III\ tropical\ series\ only.$ 

# **Compact Cassette**

### **Models**

AUXB07GALH AUXB07GATH
AUXB12GALH AUXB12GATH
AUXB14GALH AUXB14GATH
AUXB18GALH AUXB18GATH
AUXB24GALH AUXB24GATH





### **Feature**

### 2-stage turbo fan

### 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.





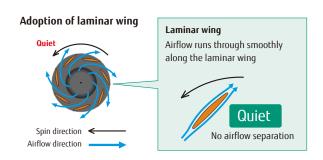
### Previous turbo fan

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.

### High ceiling mode

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

Model code	The maximum height f	rom floor to ceiling (m)
woder code —	Standard mode	High ceiling mode
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

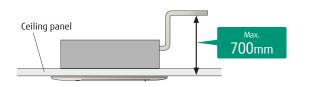


# Compact design

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



### **Optional parts**

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

### **Specifications**

Model name			AUXB07GALH AUXB07GATH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	AUXB24GALH AUXB24GATH
Power source					Single - phase,	220-240V, 50Hz		·
Consider	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
Capacity	Heating	KVV	2.8	3.2	4.1	5.0	6.3	8.0
Input power		W	25	25	29	35	36	84
	High		540 (150)	550 (153)	600 (167)	680 (189)	710 (197)	1,030 (286)
Airflow rate	Med	m <sup>3</sup> /h (I/s)	450 (125)	450 (125)	530 (147)	590 (164)	580 (161)	830 (231)
	Low	(1/3)	350 (97)	350 (97)	390 (108)	390 (108)	400 (111)	450 (125)
	High		34	35	37	38	41	50
Sound pressure level	Med	dB (A)	30	30	34	34	35	44
icvci	Low	(^,	25	25	27	27	27	30
Dimensions (H ×	W × D)	mm	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570
Weight		kg(lbs)	15 (33)	15 (33)	15 (33)	15 (33)	17 (37)	17 (37)
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diam	eter (I.D./O.D.)				25	/ 32		
	Model na	me			UTG-U	FGC-W		
Cassette Grille	Dimensions (H×W×D)	mm			50 × 70	0 × 700		
	Weight	kg(lbs)			2.6	(6)		

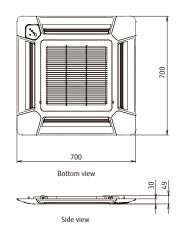
Note: Specifications are based on the following conditions.

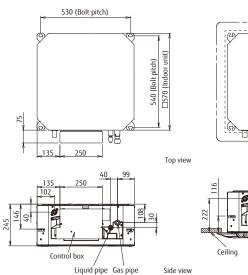
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

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].

### Dimensions (Unit: mm)





# 4-way Flow Cassette (Slim type)

### **Models**

AUXD18GALH AUXD24GALH



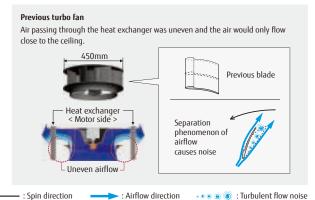


### **Feature**

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

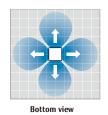
High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.

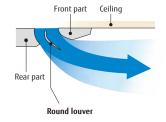


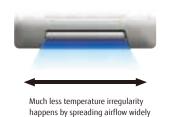


### Improvement of the airflow distribution

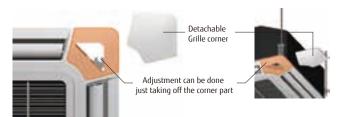
The louver design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.







# Adjustment of hanger position is possible after installation

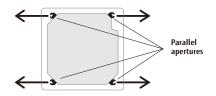


### High ceiling mode

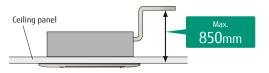
This cassette can be installed up to a height of 3.5m.

Model code	The maximum height from floor to ceiling (m)							
woder code	Standard mode	High ceiling mode						
18	3.0	3.5						
24	3.0	3.5						

### One way installation



### High lift drain pump



### **Optional parts**

IR Receiver Unit: UTY-LRHGB1 Air Outlet Shutter Plate : UTR-YDZK UTG-BKXA-W Panel Spacer: Insulation Kit for High Humidity : UTZ-KXRA Wide Panel: UTG-AKXA-W

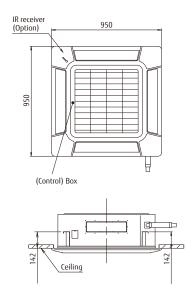
### **Specifications**

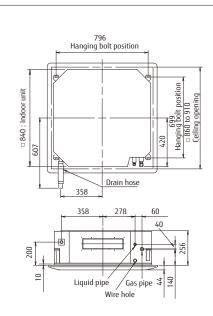
Model name			AUXD18GALH	AUXD24GALH			
Power source			Single - phase, 220-240V, 50Hz				
Connection	Cooling	kW	5.6	7.1			
Capacity	Heating	KVV	6.3	8.0			
Input power		W	39	46			
	High		1,150 (319)	1,280 (356)			
Airflow rate	Med	m³/h (I/s)	940 (261)	1,040 (289)			
	Low	(1/3)	870 (242)	870 (242)			
	High		36	38			
Sound pressure level	Med	dB (A)	30	33			
icvei	Low	(//)	29	29			
Dimensions (H ×	W × D)	mm	246 × 840 × 840	246 × 840 × 840			
Weight		kg(lbs)	22 (48)	22 (48)			
Connection	Liquid (Flare)		9.52	9.52			
pipe diameter	Gas (Flare)	mm	15.88	15.88			
Drain hose diameter (I.D./O.D.)			25	/ 32			
	Model na	me	UTG-UGGA-W				
Cassette Grille	Dimensions (H×W×D)	mm	50 × 95	0 × 950			
	Weight	kg(lbs)	5.5	(12)			

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].

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





# 4-way Flow Cassette (Large type)

### **Models**

AUXA18GALH AUXA24GALH AUXA30GALH AUXA34GALH AUXA36GALH AUXA45GALH AUXA54GALH

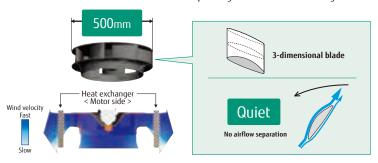


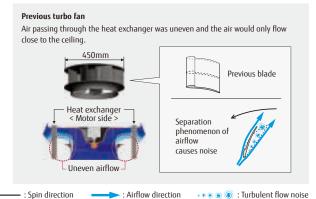


### **Feature**

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

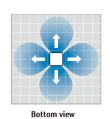
High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.

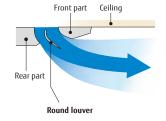


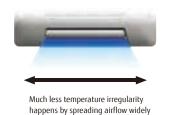


### Improvement of the airflow distribution

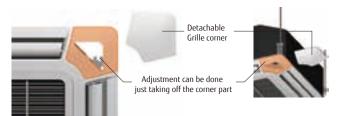
The louver design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.







# Adjustment of hanger position is possible after installation

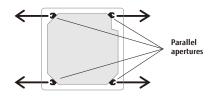


### High ceiling mode

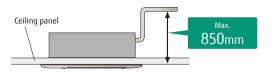
This cassette can be installed up to a height of 4.2m (36/45/54).

Model code	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 installation



### High lift drain pump



### **Optional parts**

IR Receiver Unit: UTY-LRHGB1
Air Outlet Shutter Plate: UTR-YDZK
Panel Spacer: UTG-BKXA-W
Insulation Kit for High Humidity: UTZ-KXRA
Wide Panel: UTG-AKXA-W

### **Specifications**

Model name			AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH	
Power source			Single - phase, 220-240V, 50Hz							
c	Cooling	LAM	5.6	7.1	9.0	10.0	11.2	12.5	14.0	
Capacity	Heating	kW	6.3	8.0	10.0	11.2	12.5	14.0	16.0	
Input power		W	51	51	59	77	80	99	119	
	High		1,420 (394)	1,420 (394)	1,600 (444)	1,750 (486)	1,800 (500)	1,900 (528)	2,000 (556)	
Airflow rate	Med	m <sup>3</sup> /h (I/s)	1,230 (342)	1,230 (342)	1,300 (361)	1,300 (361)	1,300 (361)	1,370 (381)	1,370 (381)	
	Low	(1/3)	1,100/1,000*1 (306/278)	1,100/1,000*1 (306/278)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)	
	High		40	40	40	43	44	46	47	
Sound pressure level	Med	dB (A)	36	36	38	38	38	39	39	
ievei	Low	(//)	33/31* <sup>1</sup>	33/31* <sup>1</sup>	33	33	33	33	33	
Dimensions (H ×	W × D)	mm	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	
Weight		kg(lbs)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52	9.52	9.52	9.52	
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88	19.05	19.05	19.05	
Drain hose diameter (I.D./O.I		1	·			25 / 32				
	Model na	me	UTG-UGGA-W							
Cassette Grille	Dimensions (H×W×D)	mm				50 × 950 × 950				
	Weight	kg(lbs)				5.5 (12)				

Note: Specifications are based on the following conditions.

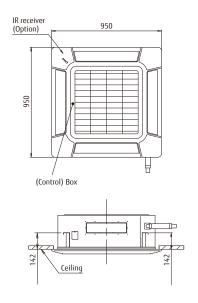
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

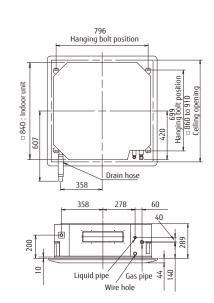
Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

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)





# Circular Flow Cassette

Models (Slim type)
AUXM018GTAH NEW
AUXM024GTAH NEW



Models (Large type)

AUXK018GTAH NEW AUXK024GTAH NEW AUXK030GTAH NEW AUXK034GTAH NEW AUXK036GTAH NEW AUXK045GTAH NEW AUXK045GTAH NEW AUXK054GTAH NEW

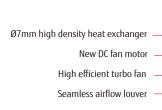




### **Feature**

### **Unique Circular Flow design**

New Cassette type realizes Circular Flow to blow large airflow in 360° direction by mounting high performance DC fan motor, new turbo fan and unique seamless airflow louver design.





### Uniform temperature air conditioning

Achieve a comfortable air conditioning spread to every corner of the room by circular flow & wide vertical airflow.





### Individual louver control

Each louver can be set individually by Touch Panel Wired Remote Controller to enjoy the comfort of different directional airflows according to various room layouts.

\* Touch Panel Wired RC (UTY-RNRGZ2) only



Comfortable air conditioning by preventing direct blowing of cold air and by providing swinging air flow simultaneously.



Efficient air conditioning based on the room layout

### Human sensor increases more energy saving

Energy saving operation starts automatically by detecting the motion of a person. 2 modes of save operation mode and stop mode can be selected.

\*Touch Panel Wired RC (UTY-RNRGZ2) only



Human sensor (Option)

2 modes can be selected

Auto saving

Power is saved while people are away.

Auto OFF

Operation stops after people go out.

### **Optional parts**

Human Sensor Kit:
Wide Panel:
UTG-AKXA-W
Panel Spacer:
UTG-BKXA-W
Air Outlet Shutter Plate:
UTR-YDZK
Insulation Kit for High Humidity: UTZ-KXRA

Cassette Grille: UTG-UKGD-W, UTG-UKGA-B

IR Receiver Unit: UTY-LBHXD



### **Specifications**

Model name			AUXM018 GTAH	AUXM024 GTAH	AUXK018 GTAH	AUXK024 GTAH	AUXK030 GTAH	AUXK034 GTAH	AUXK036 GTAH	AUXK045 GTAH	AUXK054 GTAH
Power source			Single - phase, 220-240V, 50Hz								
Capacity	Cooling	kW	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating		6.3	8.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	20	25	40	40	47	47	61	89	116
	High		1,050	1,120	1,420	1,420	1,440	1,440	1,620	1,820	2,040
	Med-Hi		930	1,050	1,360	1,360	1,440	1,440	1,500	1,590	1,800
A : (	Med	m³/h	900	930	1,300	1,300	1,340	1,340	1,400	1,500	1,590
Airflow rate	Lo-Hi	m>/n	870	900	1,270	1,270	1,300	1,300	1,340	1,400	1,440
	Low		810	870	1,200	1,200	1,280	1,280	1,280	1,300	1,300
	Quiet		780	780	1,150	1,150	1,150	1,150	1,150	1,150	1,150
	High		33	35	38	38	39	39	41	44	47
	Med-Hi		32	33	37	37	38	38	40	42	45
Sound pressure	Med	dB	31	32	36	36	37	37	38	40	42
level .	Lo-Hi	(A)	30	31	35	35	36	36	37	38	39
	Low	1	29	30	34	34	35	35	36	36	36
	Quiet		28	28	33	33	33	33	33	33	33
Dimensions (H ×	W × D)	mm	246×840×840	246×840×840	288×840×840	288×840×840	288×840×840	288×840×840	288×840×840	288×840×840	288×840×840
Weight		kg	24.0	24.5	26.5	26.5	29.5	29.5	29.5	29.5	29.5
Connection	Liquid (Flare)		6.35	9.52	6.35	9.52	9.52	9.52	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	12.70	15.88	12.70	15.88	15.88	15.88	15.88	15.88	15.88
Drain hose diameter (I.D./O.D.)			25/32								
	Model na	ne	UTG-UKGD-W/UTG-UKGA-B								
Cassette Grille	Dimensions (H×W×D)	mm					53×950×950				
	Weight	kg		6.0							

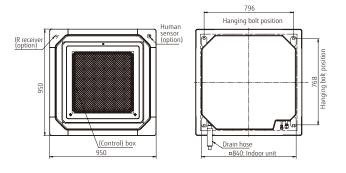
Note: Specifications are based on the following conditions.
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length: 7.5 m; Height difference between outdoor unit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

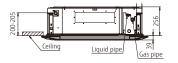
When AUX\*018GTAH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/Ø15.88 (Liq/Gas)
When AUXK036GTAH, AUXK045GLAH, and AUXK054GLAH are connected to the outdoor unit

other than J-IIIL, gas pipe diameter should be Ø19.05.

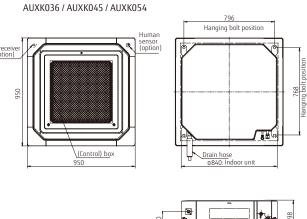
### **Dimensions** (Unit: mm)

Models: AUXM018 / AUXM024





### Models: AUXK018 / AUXK024 / AUXK030 / AUXK034



# Mini Duct

Models (With drain pump) ARXK07GCLH ARXK09GCLH

ARXK12GCLH **ARXK14GCLH ARXK18GCLH** 

ARXK24GCLH



Models (Without drain pump) **ARXK07GALH ARXK09GALH ARXK12GALH ARXK14GALH ARXK18GALH ARXK24GALH** 

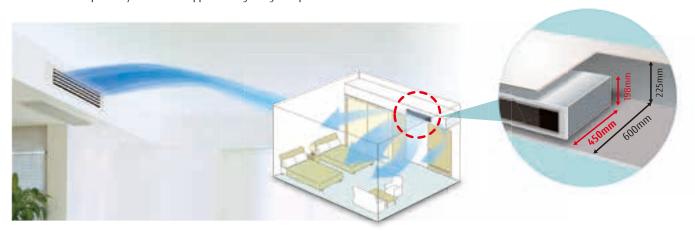




### **Feature**

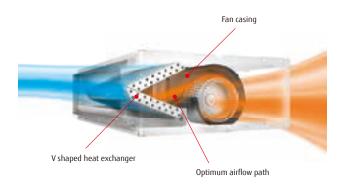
### Optimum design in harmony with interior decoration

Thin and short-depth body makes the clipped ceiling design simple.



### Advanced performance by new shaped heat exchanger and airflow

Air blower is improved so that velocity distribution is optimum in accordance with the heat exchanger shape. Wide range and uniform airflow can be received due to heat exchanger.



### Easy drain design even at narrow ceiling

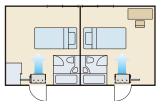
**Models with drain pump**: Drainage to the distant drain port is possible. **Models without drain pump**: Both sides drainage is possible.

### Models with drain pump



For models with drain pump, drain design is easy even at narrow ceiling.

### Models without drain pump



For models without drain pump, both sides drainage is possible and drain design is easy.

### 6-speed control\*

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

Low noise 21 dB(A)

at 07/09models





\* Compatible Remote Controller is as follows: UTY-RNRGZ2 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGG / UTY-DTGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1

### **Optional parts**

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

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

ARXK07/09/12/14GALH)

UTD-GXTB-W (for ARXK18GCLH, ARXK18GALH) UTD-GXTC-W (for ARXK24GCLH, ARXK24GALH)

### **Specifications**

Model name			ARXKO7GCLH ARXKO7GALH	ARXK09GCLH ARXK09GALH	ARXK12GCLH ARXK12GALH	ARXK14GCLH ARXK14GALH	ARXK18GCLH ARXK18GALH	ARXK24GCLH ARXK24GALH	
Power source			Single - phase, 220-240V, 50Hz						
Canadibu	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	GCLH / GALH	W	28 / 21	28 / 21	35 / 28	66 / 59	73 / 66	80 / 73	
	High		460 (128)	460 (128)	550 (153)	760 (211)	930 (258)	1,160 (322)	
	Med-H		440 (122)	440 (122)	520 (144)	660 (183)	840 (233)	1,060 (294)	
Airflow rate	Med	m³/h	420 (117)	420 (117)	480 (133)	560 (156)	740 (206)	960 (267)	
All llow late	Med-L	(I/s)	400 (111)	400 (111)	450 (125)	490 (136)	640 (178)	860 (239)	
	Low		370 (103)	370 (103)	410 (114)	410 (114)	540 (150)	750 (208)	
	Quiet		340 (94)	340 (94)	340 (94)	340 (94)	470 (131)	610 (169)	
Static pressure r	ange	Pa	0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50	
Standard static p	oressure	Ра	10	10	10	15	15	15	
	High		26	26	29	34	33	32	
	Med-H		25	25	27	31	30	30	
Sound pressure	Med	dB	24	24	26	28	28	28	
level	Med-L	(A)	23	23	25	26	26	27	
	Low		22	22	24	24	24	25	
	Quiet		21	21	22	22	22	22	
Dimensions (H ×	W × D)	mm	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 900 × 450	198 × 1,100 × 450	
Weight	GCLH / GALH	kg(lbs)	15.5 (34) / 15 (33)	15.5 (34) / 15 (33)	16 (35) / 15.5 (34)	16 (35) / 15.5 (34)	19 (42) / 18.5 (41)	22.5 (50) / 22 (49)	
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52	
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88	
Drain hose diam	eter (I.D./O.D.)				25	/ 32			

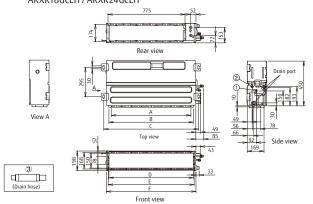
Note: Specifications are based on the following conditions.

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.

 $Pipe \ length: 7.5 \ m; \ Height \ difference \ between \ outdoor \ unit \ and \ indoor \ unit: 0 \ m. \ \ Voltage: 230 \ [V].$ 

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

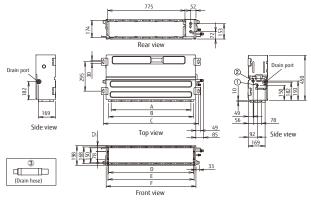
Models: ARXK07GCLH / ARXK09GCLH / ARXK12GCLH / ARXK14GCLH / ARXK18GCLH / ARXK24GCLH



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

П	ARXK07-14	ARXK18	ARXK24
Α	P100×6=600	P100×8=800	P100×10=1,000
В	650	850	1,050
C	752	952	1,152
D	650	850	1,050
E	665	864	1,064
F	700	900	1,100

Models: ARXK07GALH / ARXK09GALH / ARXK12GALH / ARXK14GALH / ARXK18GALH / ARXK24GALH



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

П	ARXK07-14	ARXK18	ARXK24
Α	P100×6=600	P100×8=800	P100×10=1,000
В	650	850	1,050
С	752	952	1,152
D	650	850	1,050
Ε	665	864	1,064
F	700	900	1,100

# Slim Duct / Slim Concealed Floor

### Models (With drain pump)

ARXD07GALH ARXD07GATH
ARXD09GALH ARXD12GALH ARXD12GALH
ARXD14GALH ARXD14GATH
ARXD18GALH ARXD18GATH
ARXD24GALH ARXD24GATH









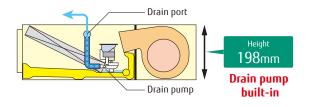




### **Feature**

### Slim design

With a slim indoor design, this indoor can be installed in narrow ceiling spaces.



# 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.

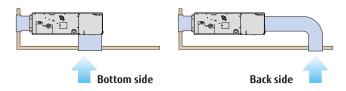


Static pressure range
0 to 90 Pa

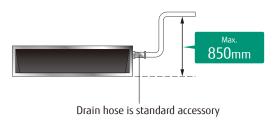
\*24 model is 0 to 50Pa

### Air-intake

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



### High lift drain pump



### Flexible installation



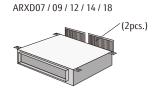


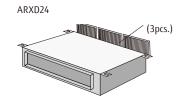






### Filter (Accessory)

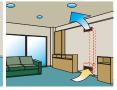






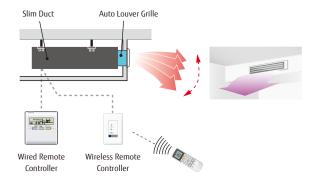






### **Auto Louver Grille Kit (Option)**

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



### **Optional parts**

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

Auto Louver Grille Kit: UTD-GXTA-W (for ARXD07/09/12/14GALH

ARXD07/09/12/14GATH)

UTD-GXTB-W (for ARXD18GALH, ARXD18GATH) UTD-GXTC-W (for ARXD24GALH, ARXD24GATH)

### **Specifications**

Model name			ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH	
Power source			Single - phase, 220-240V, 50Hz						
Canacibu	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	44	50	54	92	83	122	
	High		550 (153)	600 (167)	600 (167)	800 (222)	940 (261)	1,330 (369)	
Airflow rate	Med	m³/h (I/s)	490 (136)	550 (153)	510 (142)	710 (197)	840 (233)	1,240 (344)	
	Low	(1/3)	440 (122)	480 (133)	450 (125)	610 (169)	750 (208)	1,100 (306)	
Static pressure r	Static pressure range		0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50	
Standard static p	ressure	Pa	25	25	25	25	25	25	
	High		28	29	30	34	34	35	
Sound pressure level	Med	dB (A)	25	26	27	32	32	32	
icvei	Low	(//)	22	24	24	28	28	29	
Dimensions (H ×	W × D)	mm	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 900 × 620	198 × 1,100 × 620	
Weight		kg(lbs)	17 (37)	17 (37)	18 (40)	18 (40)	22 (48)	26 (57)	
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52	
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88	
Drain hose diam	eter (I.D./O.D.)				25	/ 32			

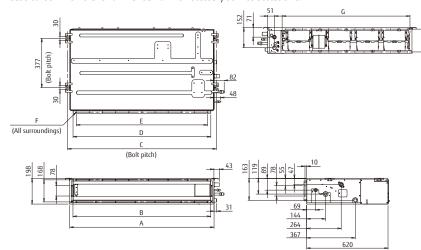
Note: Specifications are based on the following conditions.

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].

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

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



	ARXD07-14	ARXD18	ARXD24
Α	700	900	1,100
В	650	850	1,050
C	734	934	1,134
D	650	850	1,050
Ε	P100x6=600	P100x8=800	P100x10=1,000
F	18xØ5	22xØ5	26xØ5
G	574	774	974

# Medium Static Pressure Duct

### **Models**

ARXA24GBLH ARXA24GBTH ARXA30GBLH ARXA30GBTH ARXA36GBLH ARXA36GBTH ARXA45GBLH ARXA45GBTH

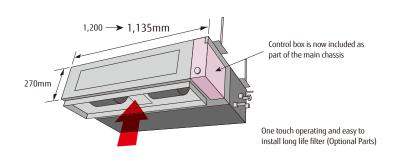




### **Feature**

### Slim & Compact design

The slim and compact design of the indoor unit, with the control box mounted on the side of the unit, allows installation in narrow spaces.



### Selectable with a wide range of static pressure

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

Static pressure range
0 to 150 Pa

### 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.



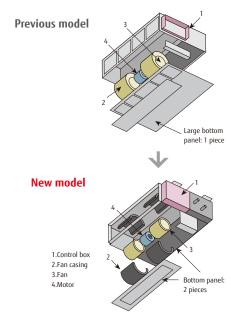
### Easy setting by using remote controller

The change of static pressure range is possible by remote controller



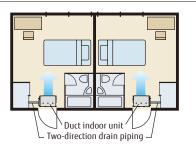
### Easy maintenance

See below for the case of rear suction type



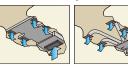
Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while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

## Two-direction drain piping

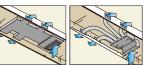


## **Installation styles**

#### **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 ARXA24GBTH	ARXA30GBLH ARXA30GBTH	ARXA36GBLH ARXA36GBTH	ARXA45GBLH ARXA45GBTH
Power source				Single - phase, 2	220-240V, 50Hz	
Capacitu	Cooling	kW	7.1	9.0	11.2	12.5
Capacity	Heating	KVV	8.0	10.0	12.5	14.0
Input power		W	190	188	312	312
	High		1,280 (356)	1,280 (356)	1,720 (478)	1,720 (478)
Airflow rate	Med	m³/h (I/s)	1,210 (336)	1,210 (336)	1,670 (464)	1,670 (464)
	Low	(1/3)	1,130 (314)	1,130 (314)	1,600 (444)	1,600 (444)
Static pressure ra	atic pressure range		30 to 150	30 to 150	30 to 150	30 to 150
Standard static p	ressure	Pa	100	100	100 100	
	High		38	40	43	43
Sound pressure level	Med	dB (A)	36	38	41	41
icvei	Low	(/-)	34	36	39	39
Dimensions (H ×	W × D)	mm	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700
Weight		kg(lbs)	39 (86)	42 (93)	42 (93)	42 (93)
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	15.88	15.88	19.05	19.05
Drain hose diameter (I.D./O.D.)				25 /	32	

Note : Specifications are based on the following conditions.

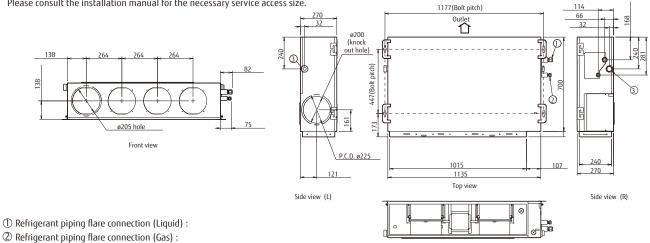
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

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

 $\ensuremath{\mathfrak{G}}$  Drain piping connection (Drain pipe)

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



# High Static Pressure Duct

Models ARXC36GBTH



Models ARXC72GBTH ARXC90GBTH



Models ARXC96GATH

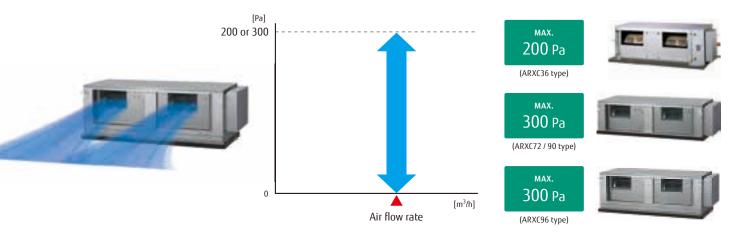




#### **Feature**

## Static pressure selection

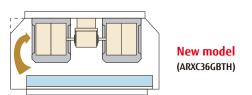
By using DC fan motor, it is possible to change static pressure range from 0 to 200Pa (ARXC36) / 300Pa (ARXC72 / 90 / 96).



#### Low noise

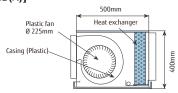
Models: ARXC36

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)]

\* Model : Material (At 100Pa : Actual noise measurement value)



# Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.





(ARXC36 type)

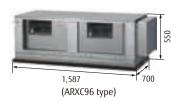
(ARXC72 / 90 / 96 type)

## Easy installation (Compact size & Lightweight)

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







(Unit:mm)

#### **Optional parts**

Long-Life Filter: UTD-LF60KA (For ARXC36GBTH)

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

#### **Specifications**

Model name			ARXC36GBTH	ARXC72GBTH	ARXC90GBTH	ARXC96GATH			
Power source				Single - phase,	220-240V, 50Hz				
Canasibu	Cooling	kW	11.2	22.4	25.0	28.0			
Capacity	Heating	KVV	12.5	25.0	28.0	31.5			
Input power		W	207	681	819	838			
	High	2.1	1,990 (553)	3,900 (1,083)	4,300 (1,195)	4,850 (1,347)			
Airflow rate	Med	m <sup>3</sup> /h (I/s)	1,680 (467)	3,300 (917)	4,000 (1,111)	4,250 (1,181)			
	Low	(1/3)	1,330 (369)	3,000 (833)	3,500 (972)	3,600 (1,000)			
Static pressure range		D-	0 to 200	0 to 300	0 to 300	0 to 300			
Standard static p	ressure	- Pa	100	150	150	150			
	High	I.D.	42	47	48	48			
Sound pressure level	Med	dB (A)	36	43	46	45			
icvei	Low	1 (7)	32	40	44	42			
Dimensions (H ×	W × D)	mm	400 × 1,050 × 500	450 × 1,587 × 700	450 × 1,587 × 700	550 × 1,587 × 700			
Weight		kg(lbs)	40 (88)	84(185)	84(185)	105(231)			
Connection	Liquid		9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)	12.70 (Brazing)			
pipe diameter	Gas	mm	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)	22.22 (Brazing)			
Drain hose diameter (I.D./O.D.)				25/32					

Note: Specifications are based on the following conditions.

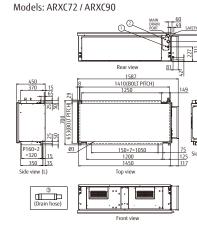
Cooling : Indoor temperature of 27 °CDB / 19 °CWB, and outdoor temperature of 35 °CDB / 24 °CWB. Heating : Indoor temperature of 20 °CDB / (15 °CWB), and outdoor temperature of 7 °CDB / 6 °CWB.

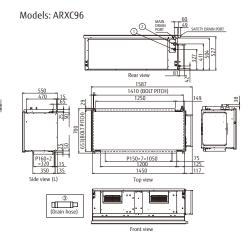
Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

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

Models: ARXC36

295





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

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

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

# High Static Pressure Duct

Models ARXC45GATH ARXC60GATH



Models ARXC72GATH ARXC90GATH





#### **Feature**

# Easy installation (Compact size & Lightweight)

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





#### Static pressure selection

Models: ARXC72 / ARXC90

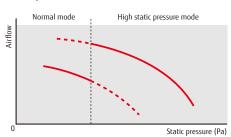
2 Types of static pressure mode are selectable.





#### High Static Pressure Duct (ARXC72)

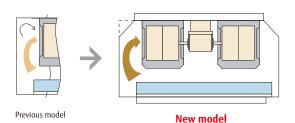
The adoption of a single phase fan motor allows 3 steps fan speed control



#### Low noise

Models: 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.

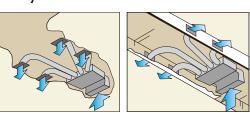


Optional parts

Long-Life Filter: UTD-LF60KA (For ARXC45/60GATH)

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

**Installation styles** 





#### **Specifications**

Model name			ARXC45GATH	ARXC60GATH	ARXC72GATH	ARXC90GATH		
Power source				Single - phase,	220-240V, 50Hz			
Consider	Cooling	kW	12.5	18.0	22.4	25.0		
Capacity	Heating	KVV	14.0	20.0	25.0	28.0		
Input power		W	715	730	1,110	1,250		
	High		3,500 (972)	3,500 (972)	3,900 (1,083)	4,300 (1,195)		
Airflow rate	Med	m³/h (I/s)	3,000 (833)	3,000 (833)	3,300 (917)	4,000 (1,111)		
	Low	(113)	2,460 (683)	2,460 (683)	3,000 (833)	3,500 (972)		
Static pressure ra	Static pressure range		100 to 250	100 to 250	50 to 300	100 to 300		
Standard static p	ressure	Pa	100	100	260	250		
	High		49	49	51	53		
Sound pressure level	Med	dB (A)	45	45	48	51		
icvei	Low	(,,	42	42	45	49		
Dimensions (H ×	W × D)	mm	400 × 1,050 × 500	400 × 1,050 × 500	450 × 1,550 × 700	450 × 1,550 × 700		
Weight		kg(lbs)	46 (101)	46 (101)	83 (-)	85(-)		
Connection	Liquid (Flare)		9.52 (Flare)	9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)		
pipe diameter	Gas (Flare)	mm	19.05 (Flare)	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)		
Drain hose diameter (I.D./O.D.)				25/32				

Note: Specifications are based on the following conditions.

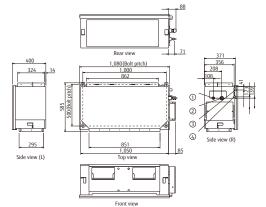
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

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].

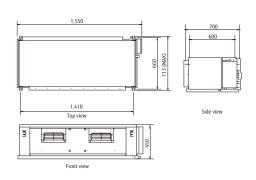
#### Dimensions (Unit: mm)

Models: ARXC45 / ARXC60



- $\textcircled{1} \ \mathsf{Refrigerant} \ \mathsf{pipe} \ \mathsf{flare} \ \mathsf{connection} \ \mathsf{(Liquid)}$
- ② Refrigerant pipe flare connection (Gas)
- 3 Drain hose connection

Models: ARXC72 / ARXC90



# Large Airflow Duct (Large type)

#### **Models**

ARXN18GATH ARXN24GATH ARXN30GATH ARXN34GATH ARXN36GATH ARXN45GATH

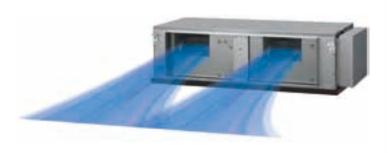




#### **Feature**

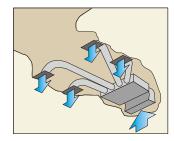
## Large airflow volume

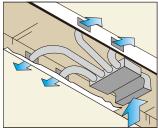
It can be installed in places such as early replacement of air required by large airflow volume.





## **Installation styles**





# Selectable with a wide range of static pressure



static pressure range 50 to 250 Pa

static pressure range 50 to 300 Pa

(30 / 34class)

(36 / 45class)

## **Optional parts**

Remote Sensor Unit: UTY-XSZX



#### **Specifications**

Model name			ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH
Power source					Single - phase,	220-240V, 50Hz	,	
Connection	Cooling	kW	5.6	7.1	9.0	10.0	11.2	12.5
Capacity	Heating	KVV	6.3	8.0	10.0	11.2	12.5	14.0
Input power		W	154	205	306	432	572	572
	High		2,280 (633)	2,640 (733)	3,200 (889)	3,720 (1,033)	4,120 (1,145)	4,120 (1,145)
Airflow rate	Med	m <sup>3</sup> /h (I/s)	-	-	-	-	-	-
	Low	(1/3)	-	-	-	-	-	-
Static pressure range		_	50 to 100	50 to 150	50 to 250	50 to 250	50 to 300	50 to 300
Standard static p	oressure	Pa	50	50	50	50	60	60
	High		35	37	40	43	45	45
Sound pressure level	Med	dB (A)	-	-	-	-	-	-
icvei	Low	(//)	-	-	-	-	-	-
Dimensions (H ×	W × D)	mm	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700
Weight		kg(lbs)	84 (185)	84 (185)	84 (185)	84 (185)	84 (185)	84 (185)
	Liquid (Flare)		9.52	9.52	9.52	9.52	9.52	9.52
	Gas (Flare)	mm	15.88	15.88	15.88	15.88	19.05	19.05
Drain hose diameter (I.D./O.D.)		1			25	/ 32		

Note: Specifications are based on the following conditions.

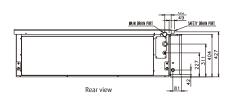
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

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

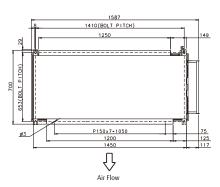
Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m. Voltage: 230 [V].

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

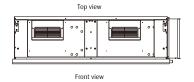
#### Dimensions (Unit: mm)











# Floor / Ceiling

#### **Models**

**ABHA12GATH ABHA14GATH ABHA18GATH ABHA24GATH** 



Floor standing





#### **Feature**

#### Flexible installation

#### **Example for floor installation**

Floor console



#### **Example for ceiling installation**

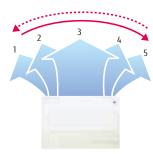
Under ceiling



## Double auto swing

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

RIGHT and LEFT SWING

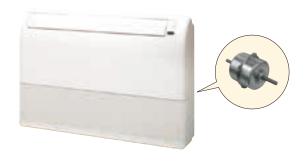


UP and DOWN SWING



## High power DC fan motor

- High power
- Wide rotation range
- High efficiency



## Compact design

Symmetrical, slim and compact design.

655 990

## **Auto-closing louver**

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

## Super vane

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

#### **Specifications**

Model name			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH			
Power source			·	Single - phase,	220-240V, 50Hz				
C!b	Cooling	kW	3.6	4.5	5.6	7.1			
Capacity	Heating	KVV	4.0	5.0	6.3	8.0			
Input power		W	30	42	74	99			
Airflow rate	High		660 (183)	780 (216)	1,000 (277)	1,000 (277)			
	Med	m³/h (I/s)	570 (158)	640 (177)	720 (199)	820 (227)			
	Low	(1/3)	490 (136)	550 (152)	580 (161)	680 (188)			
	High		36	40	46	47			
Sound pressure level	Med	dB (A)	32	36	39	42			
icvei	Low	(//)	28	34	35	37			
Dimensions (H ×	W × D)	mm	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655			
Weight		kg(lbs)	25 (55)	26 (57)	26 (57)	27 (59)			
Connection	Liquid (Flare)		6.35	6.35	9.52	9.52			
pipe diameter	Gas (Flare)	mm	12.70	12.70	15.88	15.88			
Drain hose diameter (I.D./O.D.)				25 / 32					

(Unit:mm)

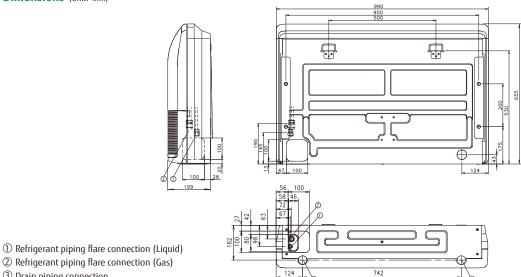
Note: Specifications are based on the following conditions.

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].

#### Dimensions (Unit: mm)



 $\ensuremath{\mathfrak{G}} \ensuremath{\text{Drain piping connection}}$ 

# Ceiling

#### **Models**

ABHA30GATH **ABHA36GATH ABHA45GATH ABHA54GATH** 

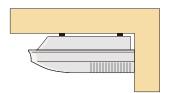




#### **Feature**

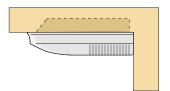
#### Installation

Open



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

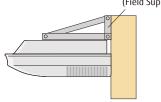
Concealed



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

Wall mounted

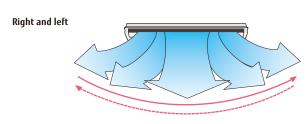
(Field Supplied)



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

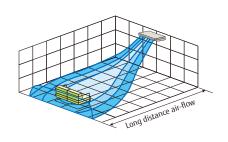


5 steps selectable

# Up and down 4 steps selectable

## Long airflow

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

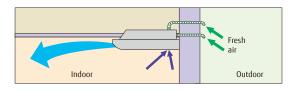


## High power DC fan motor

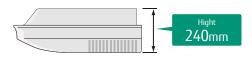
• High power • Wide rotation range • High efficiency



## Fresh air intake

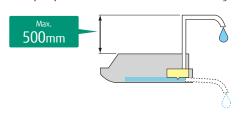


## Slim & Compact design



## High lift drain pump

Optional drain pump unit allows flexible installation design.



#### **Optional parts**

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

#### **Specifications**

Model name			ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH	
Power source				Single - phase, 2	220-240V, 50Hz		
Consider	Cooling	LAM	9.0	11.2	12.5	14.0	
Capacity	Heating	kW	10.0	12.5	14.0	16.0	
Input power		W	66	85	131	180	
High			1,630 (452)	1,690 (469)	2,010 (558)	2,270 (629)	
Airflow rate	Med	m³/h (I/s)	1,370 (379)	1,400 (389)	1,600 (444)	1,780 (493)	
	Low	(1/5)	1,140 (316)	1,170 (325)	1,230 (342)	1,280 (355)	
	High		42	45	48	51	
Sound pressure level	Med	dB (A)	38	38	42	45	
icvei	Low	(//)	33	34	35	36	
Dimensions (H ×	W × D)	mm	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	
Weight		kg(lbs)	46 (101)	48 (106)	48 (106)	48 (106)	
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52	
pipe diameter	Gas (Flare)	mm	15.88	19.05	19.05	19.05	
Drain hose diameter (I.D./O.D.)			25/32				

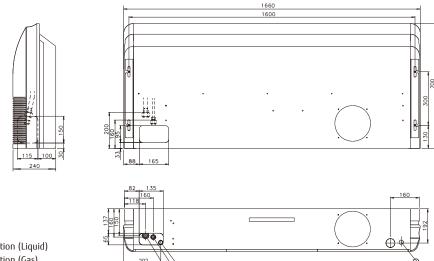
Note: Specifications are based on the following conditions.

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].

#### Dimensions (Unit: mm)



999

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

## Wall Mounted

Models (EEV internal)
ASHA07GACH
ASHA07GACH
ASHA09GACH
ASHA09GACH
ASHA12GACH
ASHA12GACH
ASHA14GACH
ASHA14GACH
ASHA14GACH
ASHA14GACH
Models (EEV external)
ASHE07GACH
ASHE09GACH
ASHE09GACH
ASHE12GACH
ASHE14GACH





#### **Feature**

#### Filter features

High performance filter provides high quality air conditioning



#### Long-life\* 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.

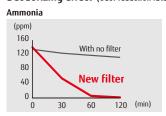
(\*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)



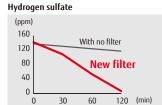
#### Apple-catechin Filter

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

#### Deodorizing effect (Odor reduction rate)

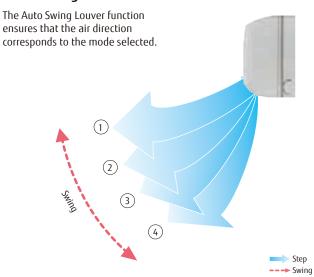






High performance filters have been thoroughly tested by the Environmental Sanitary Inspection Center using an advanced Deodorization Test.

## **Auto swing louver**



## **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.

width 790 mm



## High power DC fan motor

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



## Easy maintenance

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



## Symmetrical design

Symmetrical, clean design that suits all interiors.

#### **Specifications**

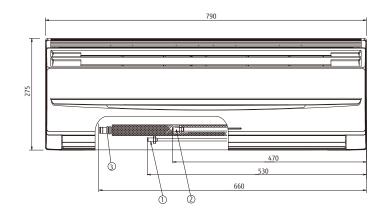
Model name			ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH
Power source				Single - phase,	220-240V, 50Hz	`		Single - phase, 2	220-240V, 50Hz	
Canasibu	Cooling	kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5
Capacity	Heating	KVV	2.8	3.2	4.1	5.0	2.8	3.2	4.1	5.0
Input power		W	17	18	22	34	15	16	21	34
	High		490 (136)	500 (139)	560 (156)	670 (186)	490 (136)	500 (139)	560 (156)	680 (189)
Airflow rate	Med	m <sup>3</sup> /h (I/s)	450 (125)	450 (125)	480 (133)	490 (136)	450 (125)	450 (125)	480 (133)	490 (136)
	Low		370/420*1 (103/117*1)	370/420*1 (103/117*1)	420 (117)	420 (117)	370/420*1 (103/117*1)	370/420*1 (103/117*1)	420 (117)	420 (117)
	High		35	36	39	44	34	35	38	43
Sound pressure level	Med	dB (A)	33	33	35	37	32	32	34	35
ievei	Low	(~)	27 / 31* <sup>1</sup>	27 / 31* <sup>1</sup>	31	32	26 / 30*1	26 / 30* <sup>1</sup>	30	30
Dimensions (H ×	W × D)	mm	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215
Weight		kg(lbs)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70
Drain hose diameter (I.D./O.D.)				13.8 / 15.	.8 to 16.7		13.8 / 15.8 to 16.7			
EV Kit (option)			-	-	-	-	UTR-EV09XB	UTR-EV09XB	UTR-EV14XB	UTR-EV14XB

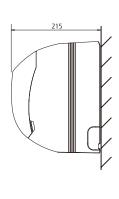
Note: Specifications are based on the following conditions.

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].

#### Dimensions (Unit: mm)





- 1 Refrigerant piping flare connection (Liquid)
- ② Refrigerant piping flare connection (Gas)
- $\ensuremath{\ens$

<sup>\*1 :</sup> This value is under cooling operation.

# **Wall Mounted**

#### **Models**

ASHA18GACH ASHA18GATH ASHA24GACH ASHA24GATH ASHA30GACH ASHA30GATH

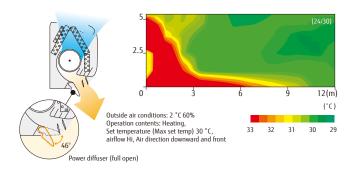




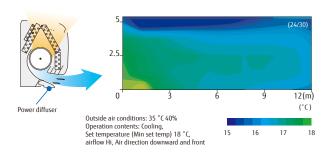
#### **Feature**

## More comfort airflow by adopting power diffuser

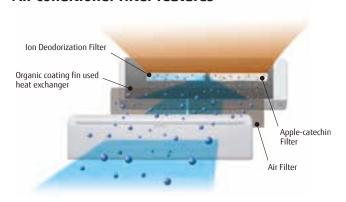
"Vertical airflow" provides powerful floor level heating



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



#### Air conditioner filter features



 $\label{thm:light} \mbox{High quality air conditioning by incorporation of high performance filter.}$ 

Ion Deodorization Filter

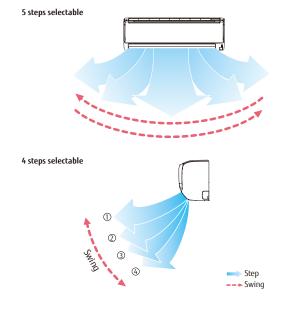
The filter deodorizes by powerfully decomposing absorbed odors using the oxidizing and reducing effects of ions generated by the ultra-fine-particle ceramic.



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

## **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.



## Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

#### **Specifications**

Model name			ASHA18GACH ASHA18GATH	ASHA24GACH ASHA24GATH	ASHA30GACH ASHA30GATH
Power source				Single - phase, 220-240V, 50Hz	
Canacitu	Cooling	kW	5.6 7.1		8.0
Capacity	Heating	KVV	6.3	8.0	9.0
Input power	put power		32	60	91
	High		840 (233)	1,100 (305)	1,240 (343)
Airflow rate	Med	m <sup>3</sup> /h (I/s)	770 (213)	910 (252)	980 (271)
	Low	(1/3)	690 (191)	730 (202)	770 (213)
	High		41	48	52
Sound pressure level	Med	dB (A)	39	43	45
ievei	Low	(//,	35	35	35
Dimensions (H ×	W × D)	mm	320 × 998 × 228	320 × 998 × 228	320 × 998 × 228
Weight		kg(lbs)	15 (33)	15 (33)	15 (33)
Connection	Liquid (Flare)		9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88
Drain hose diameter (I.D./O.D.)				12 / 16	

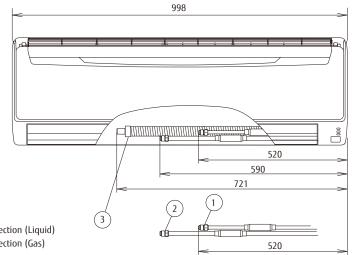
Note: Specifications are based on the following conditions.

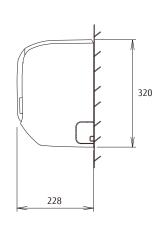
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.

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].

#### Dimensions (Unit: mm)



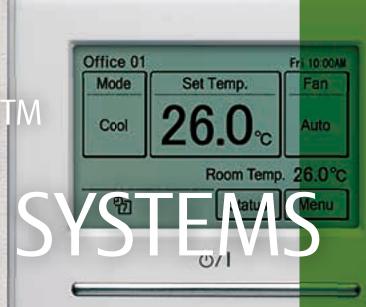


 $\ensuremath{\textcircled{1}}$  Refrigerant piping flare connection (Liquid)

② Refrigerant piping flare connection (Gas)

3 Drain piping connection

# AIRSTAGE<sup>M</sup> CONTROLS



# User friendly control system provides individual control to centralized control



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.

BEST CONTROL SOLUTION FOR EACH PROPERTY
CONTROL SYSTEM OVERVIEW
COMPARISON TABLE OF CONTROLLERS
Individual Controller
Centralised Controller
Convertor / Adaptor



# **BEST CONTROL SOLUTION FOR EACH PROPERTY**

Fujitsu General provides the best control solutions suitable for the various properties.

#### SHOP

Туре	Individual Control		Centraliza	ed Control		Inte	grating Control (Interf	ace)
STORY OF THE PARTY						<b>\rightarrow</b>	<b>\psi</b>	-
100	Wired Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	Network Convertor for LONWORKS®	MODBUS® Convertor	KNX® Convertor
L.	UTY-RNRGZ2, UTY-RLRG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•	•	•	•	•			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)			•	•	•	•	•	•
Group Control		•	•	•	•			
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)					•			
Remote Management				•	•			
Manage multiple sites				•	•			
Monitor energy consumption					•			
Control third party products					•			
Integrate FGL A/C into BMS						•	•	•

#### HOTEL

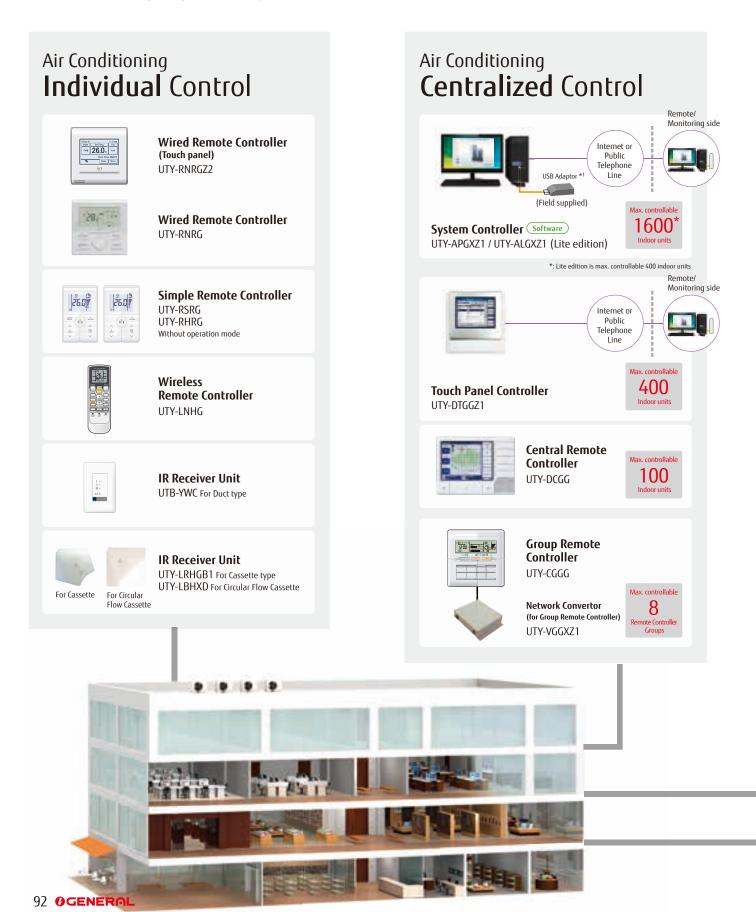
Туре		Individual Control			Centralize	ed Control			Integra	ting Control (In	terface)	
		jad jad						0		<b>\pi</b>	<b>\pi</b>	3
Mary Control	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
200	UTY-RNRGZ2, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for hotel guest	•	•	•									
Centralized A/C control for common space				•	•	•	•	•	•	•	•	
Limited control for hotel guests					•	•	•	•	•	•	•	
Remote Management						•	•					
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with window contact												•
Interlock with key-card												•

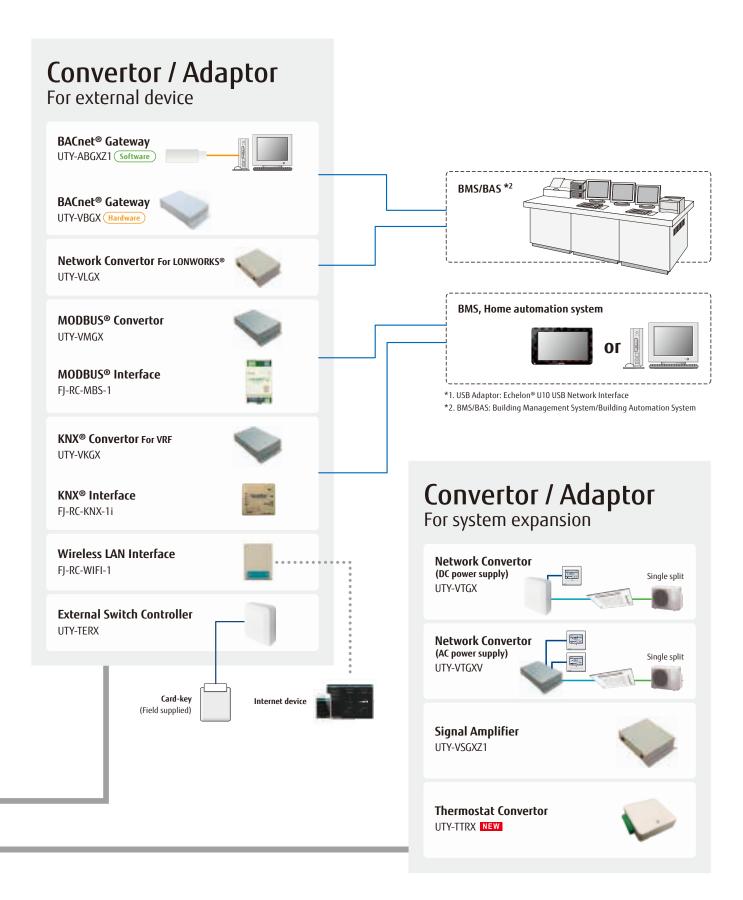
#### OFFICE

Туре		Individual Control			Centraliza	ed Control			Integra	ting Control (In	terface)	
A CONTRACTOR OF THE PARTY OF TH	780	Heaf Heaf						0		<b>\pi</b>	<b>\pi</b>	3
TO SHILL	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LONWORKS®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
Con	UTY-RNRGZ2, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for office staff	•	•	•	•	•							
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•		•	•	•	•	•	•				
Centralized A/C control for management					•	•	•	•	•	•	•	
Limited control for office staff (RC Prohibition, Room temp set point limitation etc.)					•	•	•	•	•	•	•	
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	•				
Remote Management						•	•					
Energy Charge Apportionment						•	•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with door contact												•
Interlock with human sensor for meeting room												•

# **CONTROL SYSTEM OVERVIEW**

User's needs are supported by offering a variety of controls, such as individual control, central control and building management control options.





# **COMPARISON TABLE OF CONTROLLERS**

Item			-128.0 - 	1972			
			Wired Remote Controller (Touch panel)	Wired Remote Controller	Simple Remote Controller	Simple Remote Controller*1	
Model r	name		UTY-RNRGZ2	UTY-RLRG	UTY-RSRG	UTY-RHRG	
Max. co	ontrollable remote co	ontroller groups	1	1	1	1	
Max. co	ontrollable indoor un	iits	16	16	16	16	
Max. co	ontrollable groups		-	-	-	-	
	On / Off		•	•	•	•	
	Operation mode s	setting	•	•	•	-	
	Fan speed setting		•	•	•	•	
.o.	Room temp. setti	ng	•	•	•	•	
function	Room temp. set p	oint limitation	•	•	•	•	
1 2	Test operation		•	•	•	•	
ntra	Up/down air direc	tion flap setting	•	•	•	•	
00 g	Right/left air direc	tion flap setting	•	•	-	-	
Air conditioning control	Individual louver	control	•	-	-	-	
liti.	Group setting		-	-	_	_	
000	RC prohibition		-	-	_	-	
Air o	Anti freeze settin	 g	•	-	-	-	
	Set temp. auto re	turn	•	•	-	-	
	Economy mode se	etting	•	•	-	-	
	Human sensor co	ntrol	•	-	-	_	
	Error		•	•	•	•	
	Defrosting		•	•	•	•	
	Current time		•	•	_	-	
	Day of week		•	•	_	-	
	R.C. prohibition		•	•	•	•	
	Cooling/heating p	priority	•	•	•	•	
lay	Address display	<u>-</u>	•	•	•	•	
Display	Room temp		•	_	•	•	
	Multi language		•	_	_	_	
	Summer time		•	_	_	_	
	Name registration	1	•	_	_	_	
	Backlight		•	_	•	•	
	2D floor layout / 3	D building display	-	_	_	-	
		ge detection function	-	_	_	-	
		Period	Week	Week	_	_	
	Schedule timer	On/off, Temp, Mode, Times per day	8	4	-	-	
	On/off timer		•	•	-	-	
Timer	Sleep timer		-	-	-	-	
įΞ	Program timer		-	-	-	-	
	Auto off timer		•	•	_	-	
	Day off		•	•	_	_	
	Min. unit of timer	setting (Minutes)	10 • 30	30	_	-	
	Status monitoring		-	_	_	-	
	Electricity charge	apportionment	-	-	-	-	
	Error history		•	•	-	-	
	Emergency stop		-	_	_	_	
Control	Remote manager	nent	=	-	_	_	
Con	Energy saving ma		-	_	_	_	
	E-mail notification		=	=	_	=	
	Key lock		•	•	_	_	
			Child lock	Child lock			
	Low noise mode		_	-	=	-	

Wireless Remote	Group Remote	Central Remote	Touch Panel	System Controller Lite	System Controller
Controller	Controller	Controller	Controller	Software	Software
UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-ALGXZ1	UTY-APGXZ1
1	8	100	400	400	1600
16	128	100	400	400	1600
=	-	16	400	400	1600
•	•	•	•	•	•
•	•	•	•	•	•
•	•	•	•	•	•
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	-	•	•	•	•
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_		_	•	•	•
	Week	- Week	Year	• Year	Year
	Week	Week	Year	Year	Year
-					
	Week	Week	Year	Year	Year
-	Week	Week	Year 20	Year	Year 144
-	Week 4 —	Week 20 –	Year 20 —	Year 144 —	Year 144 –
- •	Week 4 - -	Week 20	Year 20 – –	Year 144 — —	Year 144 – –
- • •	Week 4	Week 20	Year 20  - -	Year 144	Year 144 — — — —
- • • - -	Week 4	Week 20	Year 20	Year 144	Year 144
- • • - - 5	Week 4 10	Week 20	Year 20 10	Year 144	Year 144 10
- • • - - - 5	Week  4  10 -	Week 20 10	Year 20 10	Year 144	Year 144
- • • - - 5	Week  4  10	Week 20	Year 20 10	Year 144	Year 144 10 •
- • • - - - 5	Week  4  10	Week 20 10	Year 20 10	Year 144	Year 144 10
- • • - - 5 -	Week  4  10	Week 20	Year 20 10	Year 144	Year 144 10 •
- • • - - 5 - -	Week  4  10	Week 20 10	Year 20 10	Year 144	Year 144 10
- • • - - - 5 - - - -	Week  4  10 10	Week  20  10	Year 20 10	Year 144  10	Year 144  10
- • • - - - 5 - - - - -	Week  4  10 10	Week  20  10  • **2 •**2	Year 20 10 ** *** *** *** ** ** ** ** ** **	Year 144  10	Year 144 10
- • • - - - - - - - - -	Week  4  10	Week  20  10  10	Year 20 10	Year 144	Year 144
- • • - - - - - - - - -	Week  4  10	Week  20  10  • *2	Year 20 10 ** ** ** ** ** ** ** ** ** ** **	Year 144  10	Year  144  10
- • • - - - - - - - - -	Week  4  10	Week  20  10  10	Year 20 10	Year 144	Year 144

# Wired Remote Controller (Touch Panel)

Max. controllable 16

#### **UTY-RNRGZ2**

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)
- · 2-wire type



#### **Functions**

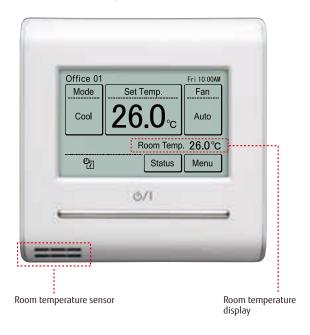
## High performance and compact size

• 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

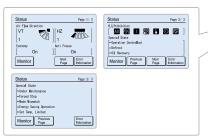
- · Backlight enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.



#### Various 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



26.0₀

#### 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.

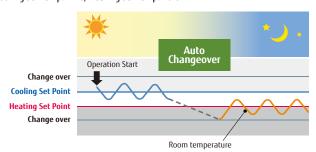


#### Various energy saving control

#### **Custom Auto**

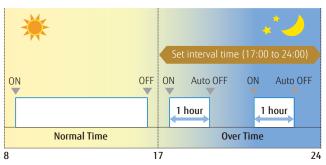
- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.
- \* This function is not available for some models.

Cooling set temp. 27°C, Heating set temp. 26°C



#### Auto OFF timer

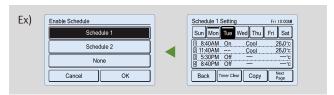
- The indoor unit automatically is turned off when it reaches to the preset operating time frame.
- The time frame of the "Auto off timer" can be flexibly scheduled.
- Can be set off time 30 to 240 minutes



Ex.) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off Set off time: 1 hour

#### 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.

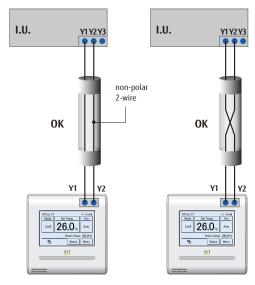
#### **Set Temperature Upper and Lower Limit Setting**

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

## Simplified installation

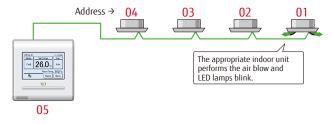
#### Uses non-polar 2-wire type

• 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.



Model name		UTY-RNRGZ2		
Power Supply		DC 12V		
Dimensions (H x W x D)	mm	120 × 120 × 20.4		
Weight	g	220		

# Wired Remote Controller

Max. controllable

16
indoor units

#### **UTY-RLRG**

- 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**

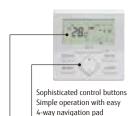
## High performance and compact size

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



# High visibility and easy operation

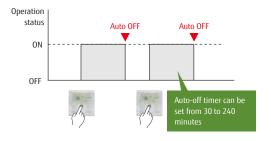
- "Mode", "Set Temp", and "Fan" are displayed at large size on the top screen.
- Each function to be set is indicated by
- Control guide is displayed and operation is simple and straightforward.



Set contents can be displayed clearer with large LCD.

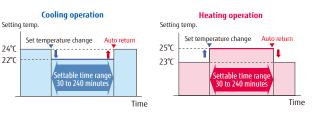
#### Auto-off timer

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



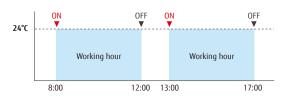
## Set temperature auto return

- 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.



#### Weekly timer function

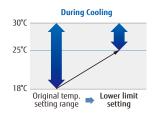
• Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.

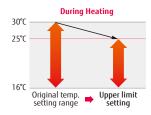


4 types (ON, OFF, ON, OFF) can be set on every day of the week in a week

## 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-RLRG		
Power Supply		DC 12V		
Dimensions (H x W x D)	mm	120 × 120 × 17		
Weight	g	170		

DC12V is supplied by indoor unit.

# Simple Remote Controller

Max. controllable 16

#### **UTY-RSRG**

#### UTY-RHRG (Without Operation mode)

Compact remote controller provides access to basic functions

- Up to 16 indoor units can be controlled with one remote controller.
- $\bullet$  Suitable for hotels or offices as it is easily operated with no complex functions.
- Stylish design: Simple design to match the stylish interior.
- Large LCD screen & simple operation buttons
- Backlight: White colored backlight on monitor enable easy operation in dark.
- 2-wire type





UTY-RSRY

UTY-RHRY Without Operation mode

#### **Functions**

## Corresponding to various applications

#### • Vertical louver control:

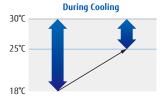
Vertical air flow direction can be adjusted for Duct types with auto louver and Cassette types, which are installed in hotels and conference rooms, can be adjusted.

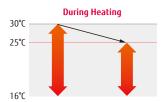




#### • Room temperature set point limitation:

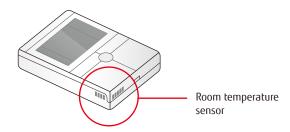
The Simple Remote Controller can manage to energy saving operation in small buildings without the central control unit.





#### • Built in room temperature sensor:

The Simple Remote Controller detects actual room temperature and controls room climate accuracy.



Model name		UTY-RSRG UTY-RHRG		
Power Supply		DC 12V		
Dimensions (H x W x D)	mm	120 × 75 × 19.4		
Weight	g	120		

# Wireless Remote Controller

Max. controllable 16 indoor units



#### **UTY-LNHG**

Simple and sophisticated operations with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.



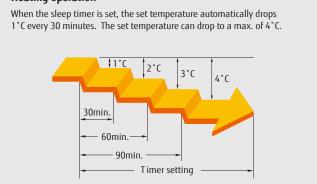
#### **Functions**

#### **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.

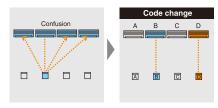
**Sleep timer:** The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.

# Cooling operation/dry operation When the sleep timer is set, the set temperature automatically rises 1°C every hour. The set temperature can rise up to a maximum of 2°C. T imer setting 60min. 1°C Leading operation



## Easy installation and operation

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

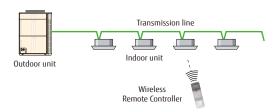


Wide and precise



## Address setting

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



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

## **IR Receiver Unit**

#### **UTB-YWC**

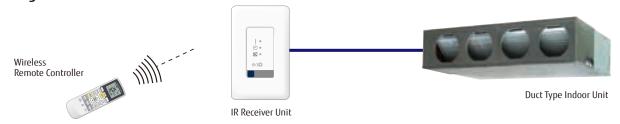
Duct type\* indoor units can be controlled with Wireless Remote Controller

- \*Only Large Airflow Duct cannot be connected to IR Receiver Unit.
- Up to 16 indoor units can be controlled with one remote controller.
- $\bullet$  Suitable for hotels or offices as it is easily operated with no complex functions.



#### **Functions**

## Wiring connection



#### **Specifications**

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

# IR Receiver Unit

UTY-LRHGB1 (For Cassette)
UTY-LBHXD (For Circular Flow Cassette)

Cassette type indoor unit can be controlled with Wireless Remote Controller



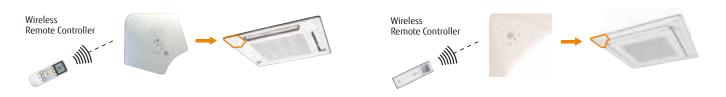


UTY-LRHYB1

UTY-LBHXD

#### **Functions**

## Wiring connection



Model name		UTY-LRHGB1	UTY-LBHXD	
Power Supply		DC 5V		
Dimensions (H x W x D)	mm	193.9 × 193.9 × 31.2		
Weight	g	140		

# Group Remote Controller / Network Convertor

Max. controllable

8
remote controller groups



Max. controllable
2
refrigerant circuits

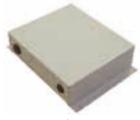
#### **UTY-CGGG / UTY-VGGXZ1**

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 is required to connect Group Remote Controllers to a VRF network system. (Network Convertor allows up to 4 Group Remote Controllers)
- 3-wire type





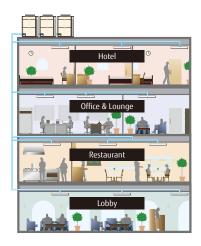


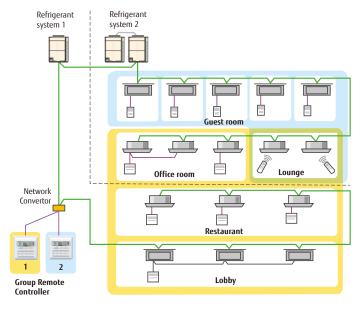
Network Convertor UTY-VGGXZ1 For Group Remote Controller

#### **Functions**

## 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)

Group Remote Controller 2: To control guest room and lounge (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.

#### **Specifications**

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

DC12V is supplied by indoor unit.

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

# Central Remote Controller

Max. controllable 100

Max. controllable 16

#### **UTY-DCGG**

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.

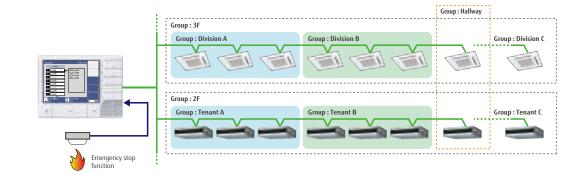
- Individual control and monitor of 100 indoor units
- 5 inch TFT color screen
- User friendly view and easy operation
- External input / output contact
- Detachable power supply unit
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)



#### **Functions**

## 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





Automatic clock adjustment



## **Easy Installation**

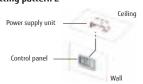
- The control panel and power supply unit can be installed separately.
- For flexibility in installation, the Control panel can be built into the wall or fix on the wall.

## Setting pattern 1

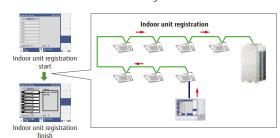
Power supply uni



#### Setting pattern 2



Automatic or manual indoor unit registration



Model name		UTY-DCGG		
		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	
<packing list=""></packing>				
Packing List	Control Panel / Power Supply Unit / Connecting cable etc			

# **Touch Panel Controller**

Max. controllable
400
indoor units

Max. controllable

100
outdoor units

Max. controllable
400
groups

#### **UTY-DTGGZ1**

- · 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**

## Control & monitoring from anywhere

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.



#### Easy maintenance

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

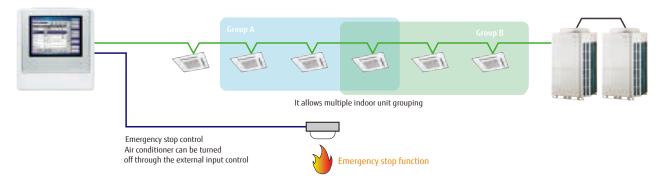


## **Easy installation**

- 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

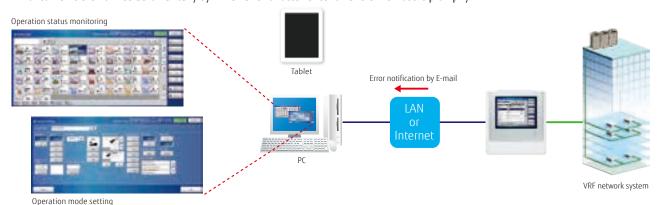


## Up to 400 indoor units can be controlled



## **Control & monitoring**

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.



#### **Smart Phone**

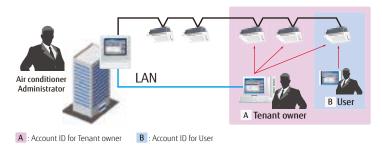
Model name	Browser
Nexus 6P (Android 7.1.1)	Google Chrome 5.5
iphone7 (iOS 10.1)	Safari 10

#### **Tablet**

Model name	Browser
ipad Pro 9.7inch (iOS 10.2.1)	Safari 10

## Flexible access permission for Point each level user.

Administrator can register multiple user to permit which indoor unit(s) and which function can access.



#### Additional languages function

Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish as standard.

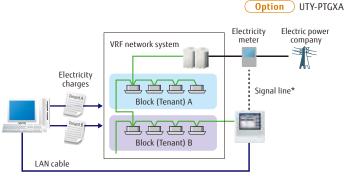
Additional language can be integrated on remote device by creating language database.

Additional language is displayed on only the remote device, and Touch Panel Controller cannot be added other languages.

# Monitoring from web site Language data 7 Languages 7 Languages + Other languages

## **Electricity charge apportionment**

- Electricity charge apportionment can be performed easily for the power consumed when billing users for air conditioning power charges.
  - Apportionment charge/bill calculation
  - · Tenant (block) setting
  - · Common facilities apportionment setting
  - Rated power consumption allotment setting
  - Individual calculation at cooling and heating
  - · Electricity meter supported



\*: Electricity meter (1unit) can be connected to external input connector of the TPC unit. In this case, electricity meter cannot be connected to outdoor unit simultaneously.

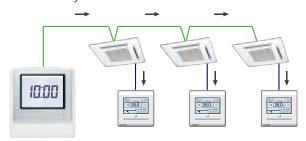
## Automatic summer time setting

#### **Providing function**

- 1) Schedule setting of summer time setting
  - It prevents the user from forgetting to set summer time. In addition, it reduces the time and labor of user.

#### Automatic clock adjustment

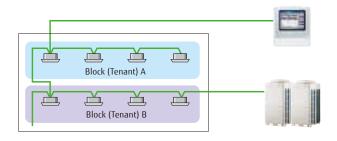
2) The time setting of each controller can be set in batch automatically.



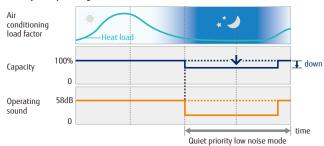
## Outdoor low noise operation

Users can choose from 4 low noise levels, depending on the installation environment.

The operation time can be set using the timer.



#### Quiet priority setting



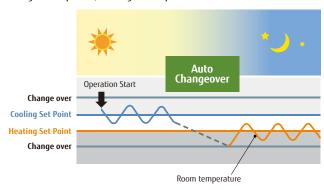
#### NEW Various energy saving control

#### **Custom Auto**

- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.
- \* This function is not available for some models.



#### Cooling set temp. $28\,^\circ\text{C}$ , Heating set temp. $18\,^\circ\text{C}$



#### **FUNCTIONS SUMMARY**





	UTY-DTGGZ1	Monitoring side		
Air conditioning control function				
On / Off	•	•		
Operation mode setting*	•	•		
Fan speed setting	•	•		
Room temp. setting	•	•		
Room temp. set point limitation	•	•		
Test operation	•	•		
Up/down air direction flap setting	•	•		
Right/left air direction flap setting	•	•		
Individual louver control	•*1	•		
Group setting	•	•		
RC prohibition	•	•		
Anti freeze setting	•	•		
Set temp. auto return	-	•		
Various energy saving control	-	•		
Economy mode setting	•	•		
Human sensor control	-	•		
Display				
Error	•	•		
Defrosting	•	•		
Current time	•	•		
Day of week	•	•		
R.C. prohibition	•	•		
Cooling/heating priority	•	•		
Address display	•	•		
Room temp	•	•		
Multi language	•	•		
Summer time	•	•		
Time zone setting	•	•		
Name registration	•	•		
Backlight	•	•		
Language setting	7	7+other		
Filter sign reset	•	•		
	1	1		

		UTY-DTGGZ1	Monitoring side
Timer		•	
Schedule timer	Period	Year	Year
	On/off, Temp, Mode, Times per day	20	20
On/off timer		-	-
Sleep timer		-	_
Program timer		-	_
Auto off timer		-	•
Day off		•	•
Min. unit of timer setting (Minutes)		10	10
Control			
Status monitoring system		•	•
Electricity charge apportionment		0	0
Error history		•	•
Emergency stop		<b>●</b> *2	<b>●</b> *2
Remote management		-	•
Energy saving management		-	_
E-mail notification for malfunction		_	•
Key lock		Password setting	-
Low noise mode		•	•

•

•

#### **Specifications**

Memory operation

Model name		UTY-DTGGZ1	
Power Supply		100-240V 50/60Hz, Single phase	
Dimensions (H x W x D)	mm	260 × 246 × 54	
Weight	g	2,150	
Interface	•	Transmission / LAN / USB / EXT IN / EXT OUT / Reset SW	

<sup>●:</sup> Supported ○: Optional function -: Not supported yet

<sup>\*1</sup> Only setting cancellation can be operated.
\*2 This function is available only through external input control.

# System Controller Software

#### **UTY-APGXZ1**

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.

# $\begin{array}{ccc} \text{Max. controllable} & \text{Max. controllable} \\ \textbf{4} & \textbf{1,600} \\ \text{VRF network systems} & \text{indoor units} \end{array} \qquad \begin{array}{c} \text{Max. controllable} \\ \textbf{400} \\ \text{outdoor units} \end{array}$





400

100

# System Controller Lite Software

#### **UTY-ALGXZ1**

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.

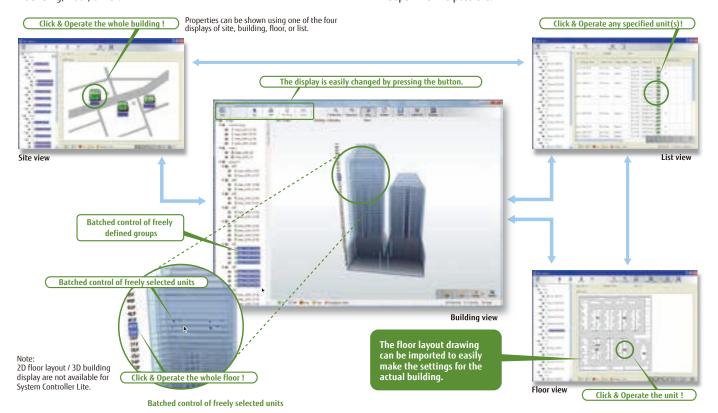


#### **Functions**

## 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.

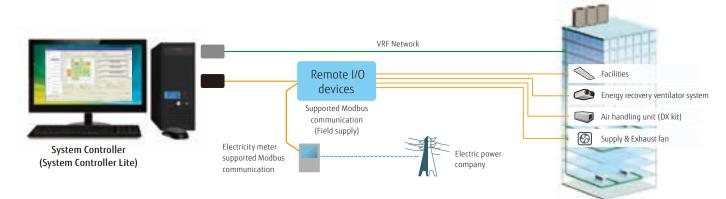


### 3rd party devices connected by Modbus can be controlled.

**Standard** for System Controller

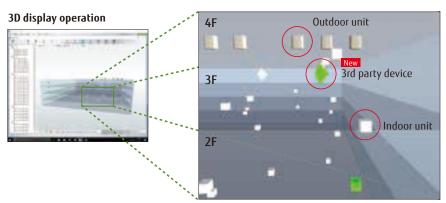
Option for System Controller Lite UTY-PLGXX2

When Modbus Adaptor (locally purchased) is connected to PC, the electric facilities supported by Modbus can be controlled centrally. Wasteful electricity charge by forgetting to turn off and patrol activities can be reduced in the entire building.



### 3D display of external equipment

3D display is also enabled for 3rd party devices, so Installation location and operation status can be checked at a glance and the operation can be managed easily.



\*UTY-APGXZ1 only

### 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 year.
- Low noise operation of outdoor unit can be scheduled.

### 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

### Remote controller prohibition

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

### Automatic clock adjustment

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

### Error display & E-mail notification

Error is notified with popup message, audible sound and E-mail real time when error occurs. Error for the past 1 year are logged and can be reviewed later.

### Data base import/export

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

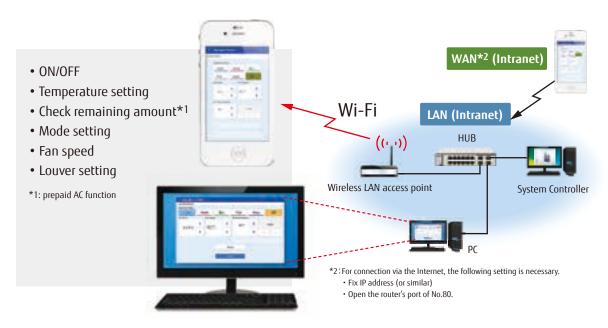
### Operating & control record

Displays the history of operation status and control.

**Functions** 

### Web Operation

PC and smartphones can be used as simple remote controller. (Indoor unit user setting is necessary to operate it from System Controller side)

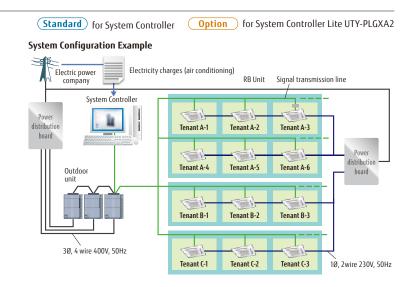


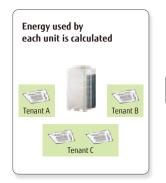
### **Electricity charge apportionment**

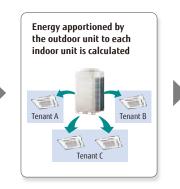
### Electricity charge apportionment calculation framework

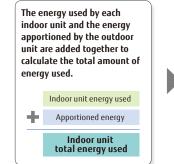
Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant.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









# 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. Tenant A Tenant B Tenant C Electric Electric

Bill

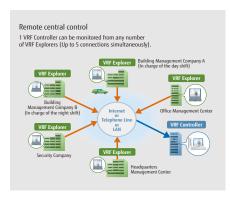
Bill

Bill

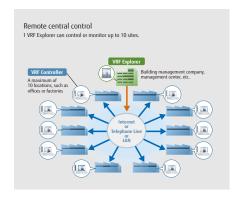
### Remote management

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.

**Standard** for System Controller Option for System Controller Lite UTY-PLGXA2



Option for System Controller UTY-PEGXZ1



Option for System Controller Lite UTY-PLGXE2

### **Energy saving management**

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

Energy Saving Management Main Screen



Energy saving graph data: This graph compares the electricity consumption with the previous month and previous year to make it easy to analyze the energy saving effect.

### Indoor unit rotation operation

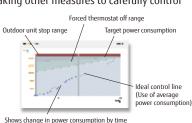
The operation of indoor units can be automatically rotated within a group in accordance with the set annual schedule to reduce power consumption while maintaining comfort. The indoor unit operation stoppage rate can be selected.



### Peak cut operation

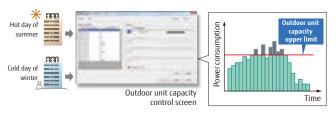
A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully control

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.



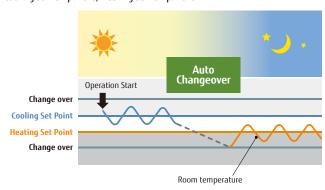
### **AIRSTAGE™ Control Systems Centralized Controller**

### **Functions**

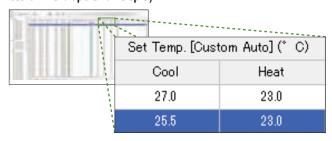
### **Custom Auto Function**

Set the temperature to start cooling and the temperature to start heating, and perform the cooling / heating operation according to the room temperature. When the room temperature is between the cooling set temperature and the heating set temperature, since air conditioning is not performed, energy saving performance is improved.

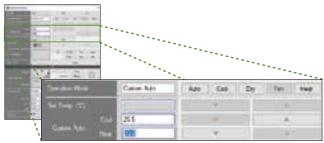
### Cooling set temp. 28 °C, Heating set temp. 18 °C



### **Custom Auto operation display**



### **Custom Auto operation display**



\*This function can display only the indoor unit that supports Custom Auto Function.

### **FUNCTIONS SUMMARY**

			System controller		System controller lite				
Function		Туре		Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
	Max. VRF networks su		4	_	1	_	_	-	_
System		ote controller groups per VRF network	400		400		_	_	_
specification	Max. outdoor units pe		100		100		_	_	_
		note controller groups per System controller	1600	_	400	_	_	_	_
	Max. outdoor units pe	r System controller	400	_	100	_	_	_	_
	Multi site display		10		10	_	_	_	_
	Number of building /		20			_	_	_	_
	Number of floor per 1		200	_		_	_	_	_
Site	Number of floor per 1		50	_	_	_	_	_	_
supervision	3D graphical layout vi		•		_	_	_	_	_
Supervision	2D graphical layout vi	ew	•	_	_	_	_	_	_
	List display		•	_	•	_	-	_	_
	Tree display		•		•	_	_	_	_
	Group display		•	_	•	_	_	_	_
Error	Error notification		•	_	•	_	_	_	_
management	Audible alarm		•	_	•	_	_	_	_
	Error e-mail notificati	on	•	_	•	_	-	-	_
	Error history		•	_	•	_	_	_	_
History	Operation history		•	_	•	_	_	_	_
	Control history		•	_	•	_	_	_	_
		On/Off	•	_	•	_	_	_	_
		Operation mode	•	_	•	_	-	_	_
		Room temperature	•	_	•	_	_	_	_
	to discretional	Fan speed	•	_	•	_	_	_	_
	Individual	Air flow direction	•	_	•	_	_	_	_
	control	Economy mode	•	_	•	_	_	_	-
0		Room temperature set point limitation	•	_	•	_	_	_	_
Operation		Antifreeze	•	_	•	_	_	_	_
control		Outdoor unit low noise setting	•	_	•	_	_	-	_
		Remote control prohibition setting	•	_	•	_	_	_	_
	Individual	Temperature upper and lower limit setting	•	_	•	_	_	_	_
	management	Filter sign reset	•	_	•	_	_	_	_
		Memory operation	•	_	•	_	_	_	_
	Other	Pattern operation	•	l _	•		_	_	_
		Web operation	•		•		_	_	
	Annual Schedule	nes operation	•	_	•	_	_	_	_
	Special day setting			_	•		_	_	_
	On /off per day		72		72		_	-	_
Schedule	On / off per week		504		504	_	_	_	_
Jenedale	Day off		904	_	904	_	_	_	_
	Min. unit of timer sett	ing (Minutes)	10	_	10	_	_	_	_
	Low noise mode Weel		10		•	_	_	_	_
	Web Operation	dy selicodic	•		•	_			
Remote	Remote monitoring		•	_		-	_	_	_
managemment	Remote operation cor	trol	•	_		•	_	_	_
managemment	Remote function setti		•	_	_	•	_	_	_
	Apportionment charg		•	_		_	•		
	Tenant (block) setting		•		<del></del>	l =	•	_	<del></del>
Electricity	Common facilities app			_			•	_	
charge		otion allotment setting					•	_	
apportionment			_	•*	<del></del>		•		
• •		at cooling and heating		•	<del></del>		•		
	Electricity meter supported								
	Indoor unit rotation			•	-	_	_	•	
F		Peak cut control		•		_	_		-
Energy	Outdoor unit capacity		-	•	-	_	_	•	-
saving	Record of energy savi		-	_			_	•	_
management	Energy saving informa		_	•		_	_	•	_
	Power consumption m			•		_	_	•	
	Electricity meter supp	orted	<del>-</del> -	•		_		•	
External Device	Monitor		•		_	_	_	_	•
Control	Control		•	_	-	_	_	_	•
	Database import/exp		•	_	•	_	_	-	_
				_	•		_	_	_
Others	Automatic clock adjus Multi language	tment	7 languages		7 languages	_			

<sup>• •:</sup> Available. -: Not available. \*: Power calculation application software is necessary, please contact the local FGL representative.

### Personal computer system requirements

The required PC specifications are shown in the following table.

	System Controller	System Controller Lite				
Operating system	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)</li> <li>[Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>					
CPU	Intel® CoreTM i3 2 GHz or higher	Intel® CoreTM i3 2 GHz or higher				
Memory	• 2 GB or more (for 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 space355	40 GB or more of free space355				
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 6 ports)     (Required only for the Server PC that works as VRF Controller)     - Maximum of 2 USB ports are required for WHITE-USB-KEY/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 6 ports) (Required only for the Server PC that works as VRF Controller)  - Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connectior - 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					

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

1 Actuite Lists							
	For System	n controller	For System controller Lite				
Type	Contrar controller	Option	System Controller Lite	Option			
Туре	System controller	Energy manager	System Controller Lite	Remote access	Electricity charge apportionment	Energy saving	Central Control
Model name	UTY-APGXZ1	UTY-PEGXZ1	UTY-ALGXZ1	UTY-PLGXR2	UTY-PLGXA2	UTY-PLGXE2	UTY-PLGXX2
WHITE-USB-KEY	1	1	1	1	1	1	1

<sup>\*1:</sup> Software protection key to be inserted in a USB slot running System Controller or System Controller Lite.
System Controller or System Controller Lite may only run on a PC with WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.

# BACnet® Gateway

Max. controllable

4

VRF network systems

Max. controllable

1,600
indoor units

Max. controllable
400
outdoor units

### **UTY-ABGXZ1**

- 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-135-2014) 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.

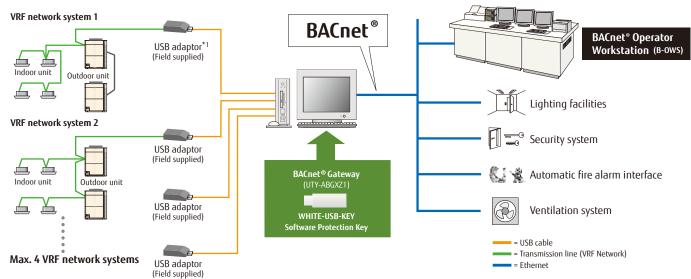




WHITE-USB-KEY (Software Protection Key)

### **Functions**

### **Installation example**



<sup>\*1:</sup> USB adaptor is U10 USB Network Interface of Echelon® Corporation.

### Personal computer system requirements

	UTY-ABGXZ1
Operating system	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)</li> <li>[Supported languages]</li> <li>English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>
CPU	Intel® CoreTM i3 2 GHz or higher
Memory	• 2 GB or more (for 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) USB port is required for WHITE-USB-KEY/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

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

### <PACKING LIST>

Name and shape	Quantity	Application
WHITE-USB-KEY	1	Includes the software and manuals, license for BACnet® Gateway.

# BACnet® Gateway (Hardware)

Max. controllable

Max. controllable

Max. controllable 128

### **UTY-VBGX**

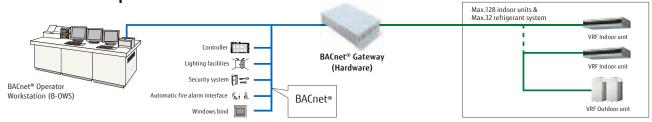
- BACnet® Gateway enables to connect a BMS and FG VRF system.
- A maximum of 128 indoor units and 32 refrigerant system can be connected to a single BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.





### **Functions**





### **Specifications**

Model name	UTY-VBGX
Number of controllable indoor units	128
Number of controllable refrigerant system	32
Number of controllable VRF network	1
Number of connectable units / one VRF etwork	4

Model name		UTY-VBGX	
Power Supply		100-240V 50/60Hz, single phase	
Power Consumption		4.6 (max)	
Dimensions (H x W x D) mn		59.6 × 270.4 × 176	
Weight g		1,200	

# Network Convertor for LonWorks®

### Max. controllable 4

Max. controllable 128

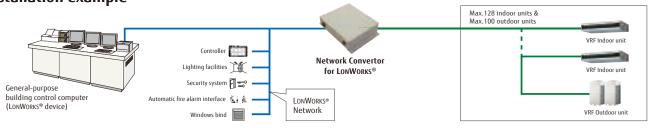
Max. controllable 100

### **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®

### **Functions**

### Installation example



### **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 × 288 × 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.)		

# **MODBUS®** Convertor

Max. connectable

9
units to one VRF

Max. controllable

Max. controllable

### **UTY-VMGX**

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**



### **Specifications**

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

# MODBUS® Interface

Max. controllable

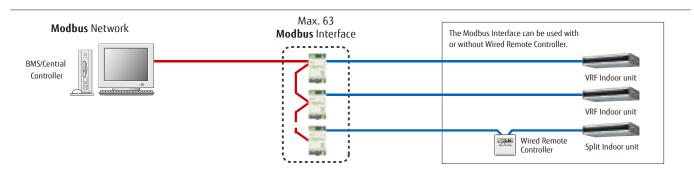
1
Single indoor unit

### 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.

### **Functions**



### **Specifications**

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

### 116 OGENERAL

# KNX® Convertor (for VRF)

Max. controllable 128

Max. controllable 100

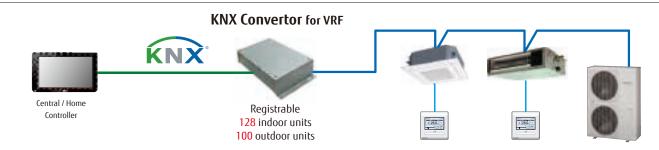
### **UTY-VKGX**

It is possible to control the VRF system from central / home controller via KNX network.

- New KNX Convertor enables to connect central/home controller and FG VRF system.
- A maximum of 128 indoor units and 100 outdoor units can be connected to single KNX Convertor.



### **Functions**



### **Specifications**

Model name		UTY-VKGX
Power Supply		220-240V 50/60Hz
Input power	W	1.5
Dimensions (H x W x D)	mm	54 × 260 × 150
Weight	g	1,200

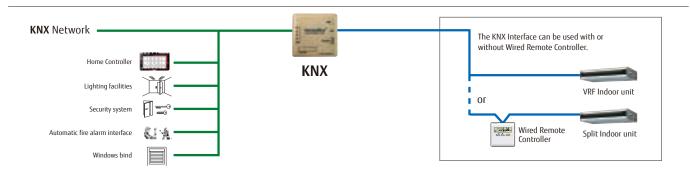
# KNX® Interface

### 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

### **Functions**



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

# Wireless LAN Interface IntesisHome

Max. controllable

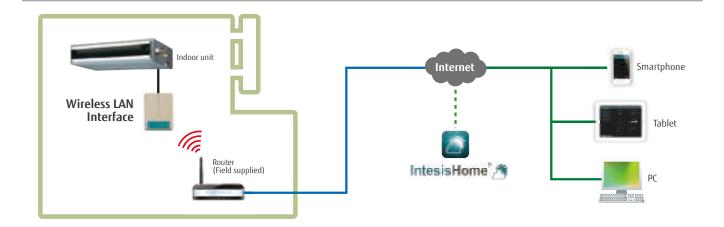
1
Single indoor unit

### 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



### **Functions**



### **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)

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

# **Network Convertor**

Max. controllable 16

Max. controllable 100

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

Compact remote controller provides access to basic functions

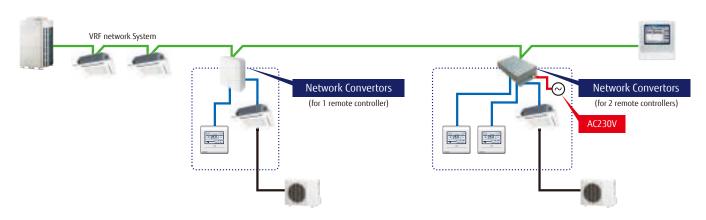
- The network convertors are required when connecting single split system to VRF network system.
- · Compact and light weight design
- Connectable to both types of 2-wire and 3-wire remote controllers



### **Functions**

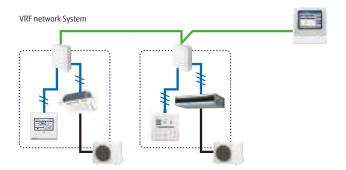
### Installation example

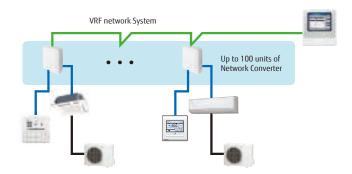
- 2 types of 1 remote controller type and 2 remote controllers type are available.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.



• 2-wire and 3-wire type of the wired remote controller can be connectable.

• 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)





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	Max. 3		
Dimensions (H x W x D)	mm	140 × 117 × 43		54 × 260 × 150		
Weight	g	25	50	1,100		

# **External Switch Controller**

Max. controllable

1

group

### **UTY-TERX**

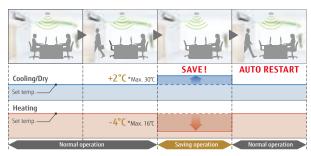
- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a locally purchased parts.
- 2-wire type
- The set temperature can be specified at two points for cooling and heating individually (4 points).



### **Functions**

### **Installation example**

Human sensor catches movements of people in a room, and operates with lower capacity when people come back to the room, it automatically returns to previous operation mode.



Human sensor equipment needs to be purchased locally. The above example indicated that a signal is sent to this External Switch Controller if human sensor does not detect for 20 minutes. Human sensor is not mounted on the External Switch Controller.

### **Specifications**

Model name		UTY-TERX
Power Supply		DC 6.5-16V
Dimensions (H x W x D)	mm	140 × 117 × 43
Weight	g	250

DC12V is supplied by indoor unit.

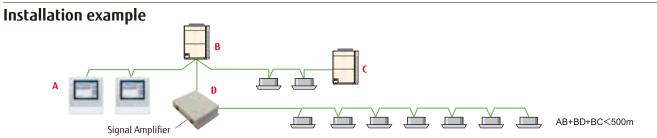
# Signal Amplifier

### **UTY-VSGXZ1**

- $\bullet \ Transmission \ Line \ length \ can \ be \ extended \ up \ to \ 3,600m \ with \ multiple \ Signal \ Amplifiers.$
- $\bullet$  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 500 m.
- (2) When the total number of units on the transmission line exceeds 64.



### **Functions**



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

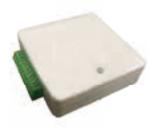
# Thermostat Convertor

Max. controllable 16

### UTY-TTRX NEW

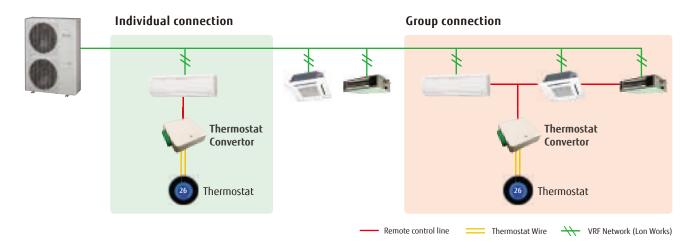
Control air conditioner using third party thermostat

• Thermostat convertor can control Fujitsu General products using a third party thermostat. Up to 16 indoor unit can be connected with one thermostat convertor.



### **Functions**

### Installation example



### **Function**

	ON/OFF
	Operation mode
Air Conditioning Control	Room Temperature
	Fan Speed
	Delay OFF

	Indoor unit Error notification*
Air Conditioning Control	Convertor Error notification*

<sup>\*</sup>These function are displayed on the convertor's PCB board.

Model name		UTY-TTRX
Max. Connectable Indoor Unit		16
Input power (Max.)	W	0.6
Dimensions (H x W x D)	mm	27 × 86.7 × 86.7
Weight	g	220



# 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.

### Outdoor Air Unit

DX-Kit for airhandling applications

### Outdoor Air Unit range

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



# Outdoor Air Unit

**Models** 

ARXH054GTAH ARXH072GTAH ARXH096GTAH





ARXH072



ARXH096

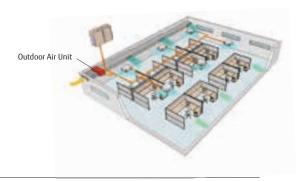


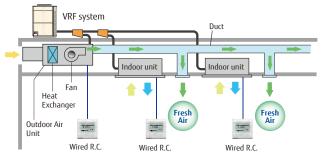
**Feature** 

### 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.

\*1. Connectable VRF series: J-IIS





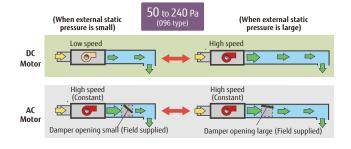
\* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30% or less of the outdoor unit capacity.

# High energy savings and flexible duct design by using DC motor

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

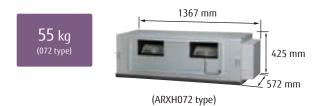


- Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.
- Static pressure can be set easily using wired remote controller.



### 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 controller.

### **Individual Controller**



### **Central Controller**



<sup>\*</sup> The temperature setting is discharged air temperature setting. The air volume is set to a constant speed.

### **Specifications**

Rated flow rate			1000 m³/h	1500 m <sup>3</sup> /h	2000 m <sup>3</sup> /h				
Model name			ARXH054GTAH	ARXH072GTAH	ARXH096GTAH				
Power source		V/Ø/Hz	220-240V, 50Hz						
Capacitus	Cooling	kW	14.0	22.4	28.0				
Capacity	Heating	KVV	8.9	13.9	17.4				
Input power	Cooling	W	179	292	370				
	Heating	l w	179	292	370				
Airflow rate m <sup>3</sup> /h		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 dB(A)		dB(A)	42	44	47				
Dimensions (H × W × D) mm		mm	425 × 1,367 × 572	425 × 1,367 × 572	450 × 1,583 × 700				
Weight		kg 48		55	71				
Connection	Small		9.52	12.70	12.70				
pipe diameter	Large	mm	19.05	22.22	22.22				
Operation	Cooling	0600	5 to 43	5 to 43	5 to 43				
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].

Front view

### Dimensions (Unit: mm) Model: ARXH054 Model: ARXH072 Model: ARXH096 P150×7=1050 1199 Side view (L) Side view (R) Side view (L) Side view (R) Side view (L) Top view Side view (R) Top view Top view (Drain hose) (Drain hose) (Drain hose)

Front view

Front view

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

**Models** 

Control unit

UTY-VDGX

**EEV** unit

UTP-VX30A

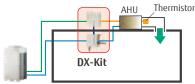
UTP-VX60A UTP-VX90A

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).

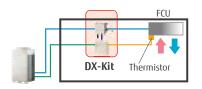


**Feature** 

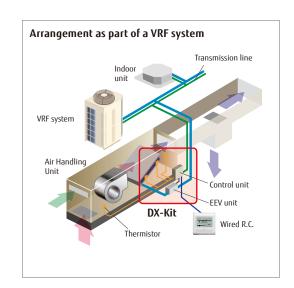
# Multiple temperature sensors optimally control the air handling unit and fan coil unit.



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

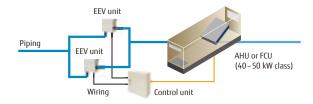


When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.



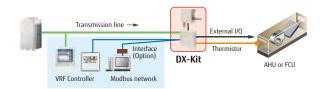
### Supports a wide range of capacity classes

- 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

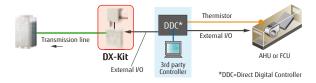


### A variety of controls to match the application

 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 : All VRF
- Connectable DX-Kit system capacity range: 50 to 100% of the outdoor unit capacity
- Connectable DX-Kit system capacity range with AHU or FCU : 30% or less of the outdoor unit capacity (Mixed connection)
- Max. wiring length from control unit: 10 m

[For 2EEV units connection (option)] • Separation Tube : UTP-LX180A

- 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.

### Connectable capacity

• Single connection DX-KIt Air Handling Unit

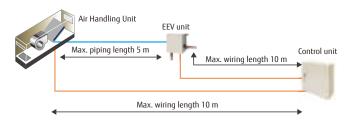
50% - 100% of outdoor unit capacity

Within 30% of total capacity

50% – 100% of outdoor unit capacity

. Air Handling Unit

### Piping and wiring length



· Mixed connection

### **Specifications**

EEV unit		UTP-VX30A			UTP-VX60A		UTP-VX90A		UTP-VX90A×2			
Power source		V/Ø/Hz		230/1/50								
Connectable capacity class kW		kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0
Connection	Cooling	130/	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)
Capacity	Capacity Heating	- kW	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(Ref	erence value)	m³/h	1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000
Dimensions (H >	W × D)	mm	160 × 220 × 90 (				(160 × 22	(160 × 220 × 90)× 2				
Weight		kg				:	2				2	× 2
Connection pipe diameter	Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52	12.70	12.70	12.70	12.70

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].



# Diverse building air conditioning control functions can be controlled easily by AIRSTAGE™ options.



Various kinds of optional parts are provided such as controllers, adaptors and convertors to meet the needs of every user.

Pressure Sensor Kit
Auto Louvre Grille Kit
CONTROL SYSTEM LIST
OPTIONAL PARTS LIST
OPTIONAL PARTS
FUNCTION LIST
SEPARATION TUBE etc.



# Pressure Sensor Kit

Models
UTY-SPWX NEW

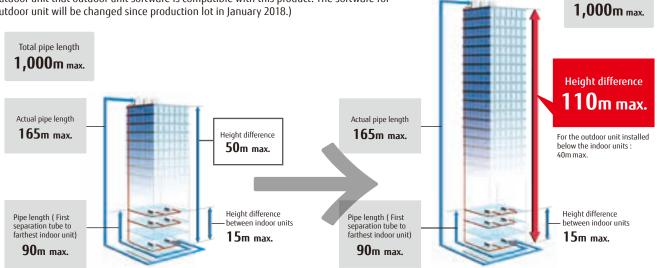


Total pipe length

### **Features**

### **Design Flexibility**

The height difference between the outdoor unit and the indoor unit is usually 50 m for the V-III series, but by installing the pressure sensor kit it is possible to expand it to 110 m. (\*This product can be used connected only V-III series. Also, it is possible to use only the outdoor unit that outdoor unit software is compatible with this product. The software for outdoor unit will be changed since production lot in January 2018.)



# Outdoor unit (V-III series) Transmission Pressure Sensor Kit UTY-SPWX Convertor The lowest Indoor unit 10m or less

# Pressure Sensor Kit Pressure sensor kit (Convertor) Refrigerant pressure sensor Joint pipe

Model name		UTY-SPWX					
Power Supply		DC16-9					
Dimensions (H x W x D)	mm	140×117×43					
Weight	g	200					

# **Auto Louver Grille Kit**

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





### **Feature**

### **Flexible Control**

### • Operation with indoor unit

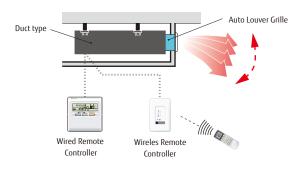
Auto Louver can be operated by synchronizing remote controller of indoor unit.

### • UP and Down auto swing

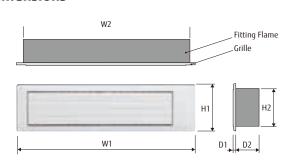
- Auto airflow direction and auto swing
- 4 steps selectable

### • 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				

Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W					
Applicable Indo	or Unit		ARXD07/09/12/14GALH ARXD07/09/12/14GATH ARXK07/09/12/14GCLH ARXK07/09/12/14GALH	ARXD07/09/12/14GATH ARXD18GATH ARXD24GATH ARXK07/09/12/14GCLH ARXK18GCLH ARXK24GCLH ARXK07/09/12/14GALH ARXK18GALH ARXK24GALH						
Power source				Connecting with Control box of indoor unit						
Fixing of Auto L	ouver Grille			Screw fixing to Flange or Square Duct						
Extension Square Duct Limit			1.	Om (Max. duct length between indoor unit and Grille)						
Dimensions (H	× W × D)	mm	180 × 683 × (84+9)	180 × 683 × (84+9) 180 × 883 × (84+9) 180 × 1083 × (84+9)						
W-:	Net	1	2.0	2.5	3.0					
Weight	Gross	- kg	3.0	3.5	4.0					
Color				White						
Louver Motor			-	Stepping Motor						
Accessories				Fitting Flame, etc.						
	Cooling	°C	-	18 to 32						
Operation Cooling % RH			80% or less							
Kange	Heating °C 16 to 30									

<sup>\*:</sup> The Auto Louver Grille Kit can also be installed to ARXD07/09/12/14/18/24LATH revision code B models. Please refer to the Design & Technical manual for "revision code " details.

# **CONTROL SYSTEM LIST**

COI	ntrollers / Int	erface											
					Cassette	Indoor unit		Di	uct				
			4-way Compact	4-1	vay	Circul	ar Flow	Mini (With drain pump)	Mini (Without drain pump)				
Тур	e		AUXB 07/09/12/14/18/24 GALH, AUXB 07/09/12/14/18/24 GATH	AUXD 18/24GALH	AUXA 18/24/30/34/ 36/45/54 GALH	AUXM 018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH				
Controllers	Wired	-1280. - 		,	,	UTY-RNRGZ2							
2	Remote Controller	(200)				UTY-RLRG							
ı	Simple Remote Controller	2-wire type 3-wire type		UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG									
ı	Wireless Remote Controller			UTY-LNHG									
ı	Group Remote Controller			UTY-CGGG + UTY-VGGXZ1									
ı	Central Remote Controller			UTY-DCGG									
ı	Touch Panel Controller					UTY-DTGGZ1							
ı	System Controller, System Controller Lite					UTY-APGXZ1, UTY-ALGXZ	1						
	IR Receiver Unit				RHGB1		<b>●</b> LBHXD		-үwс				
Interface	BACnet Gateway	10				UTY-ABGXZ1, UTY-VBGX							
ı	Network Convertor for LONWORKS					UTY-VLGX							
ı	MODBUS Convertor	-				UTY-VMGX							
ı	MODBUS Interface			FJ-RC-MBS-1					MBS-1				
ı	KNX Convertor	-				UTY-VKGX							
ı	KNX Interface			FJ-RC-KNX-1i FJ-RC-KNX-1i									
ı	Wireless LAN Interface			FJ-RC-WIFI-1					WIFI-1				
	External Switch Controller					UTY-TERX							
	Network Convertor for single split	DC Power AC Power Supply Type Supply Type		UTY-VTGX, UTY-VTGXV									
	Thermostat convertor					UTY-TTRX							

				Indoor unit				
	D	uct					Wall Mounted	
Slim (With drain pump)	Medium Static Pressure	High Stal	ic Pressure	Ceiling / Floor	Ceiling	-	EEV external	-
ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH	ARXC 45/60/72/90 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH
				● UTY-RNRGZ2				
				UTY-RLRG				
			UTY-RS	● RG, UTY-RHRG, UTY-RSKG, U	JTY-RHKG			
				UTY-LNHG				
				● UTY-CGGG + UTY-VGGXZ1				
				UTY-DCGG				
				● UTY-DTGGZ1				
				UTY-APGXZ1, UTY-ALGXZ1	1			
		-YWC						
				UTY-ABGXZ1, UTY-VBGX				•
				UTY-VLGX				
				UTY-VMGX				
	-MBS-1	FJ-RC	• -MBS-1 '90/96GATH only)			FJ-RC-MBS-1		
				UTY-VKGX				
	-KNX-1i		• KNX-1i 90/96GATH only)			● FJ-RC-KNX-1i		
	-WIFI-1		• -WIFI-1 90/96GATH only)			FJ-RC-WIFI-1		
				UTY-TERX				
				UTY-VTGX, UTY-VTGXV				
				UTY-TTRX				

# **OPTIONAL PARTS LIST**

### Others

othe	13								
					Cassette	Indoor unit		Di	uct
			4-way Compact	4-1	way	Circula	ar Flow	Mini (With drain pump)	Mini (Without drain pump)
Туре			AUXB 07/09/12/14/18/24 GALH, AUXB 07/09/12/14/18/24 GATH	AUXD 18/24GALH	AUXA 18/24/30/34/ 36/45/54 GALH	AUXM 018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH
	Human Sensor Kit	101					<b>●</b> SHZXC		
S	Remote Sensor Unit	New amenity space can be offered by installing the Remote sensor.							xszx
C	Eassette Grille	UTG-UFGG-W UTG-UGGA-W UTG-UKGD-W UTG-UKGA-B	UTG-UFGC-W	итс-и	GGA-W	UTG-U	KGD-W KKGA-B		
L	Auto Louver Grille Kit								
L	Long Life Filter								
F	Flange	0-							
P	Orain Pump Jnit	事業							
	Nide Panel	Indoor unit 950		UTG-A	KXA-W GYA-W		• KXA-W		
PS	Panel Spacer	(mm) 242 Panel spacer		UTG-B	KXA-W GYA-W		• KXA-W		
S	Air Outlet Shutter Plate	For Cassette	● UTR-YDZB		• YDZK		• YDZK		
fo	nsulation for High Humidity	For Compact Cassette type / Cassette type	● UTZ-KXGC		<b>●</b> KXRA		<b>●</b> KXRA		
S	Pressure Sensor Kit for V-III series*								

	n.	uct		Indoor unit	1		Wall Mounted		Outdoor unit
Slim (With drain pump)	Medium Static Pressure		ic Pressure	Ceiling / Floor	Ceiling	-	EEV external	-	V-III Tropical
ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH	ARXC 45/60/72/90 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH	AJH 072/090/108/ 126/144/162 LNTCH
		XSZX							
UTD-GXTA-W UTD-GXTB-W(18) UTD-GXTC-W(24)									
	UTD-LF25NA		A(36/45/60)						
	UTD-SF045T UTD-RF204				UTD-RF204				
	UTZ-PX1NBA				UTR-DPB24T				
									● UTY-SPWX

# **OPTIONAL PARTS**

### Controllers

For Individual Control

### Wired Remote Controller (Touch Panel)

UTY-RNRGZ2



### Wired Remote Controller

UTY-RLRG



### **Simple Remote Controller**

UTY-RSRG

With operation mode



### Simple Remote Controller

UTY-RHRG

Without operation mode



### **Wireless Remote Controller**

UTY-LNHG



### **IR Receiver Unit**

UTB-YWC

For All Duct types except Large Airflow Duct



### **IR Receiver Unit**

UTY-LRHGB1

For Cassette type



### **IR Receiver Unit**

UTY-LBHXD

For Circular Flow Cassette type



### **Human Sensor Kit**

UTY-SHZXC

For Circular Flow Cassette type



### For Centralized Control

### **Group Remote Controller**

UTY-CGGG



### **Central Remote Controller**

UTY-DCGG



### **Touch Panel Controller**

UTY-DTGGZ1





### System Controller Lite Software

UTY-ALGXZ1

WHITE-USB-KEY (Software Protection Key)



UTY-PLGXA2 UTY-PLGXE2 UTY-PLGXX2



### System Controller Software

UTY-APGXZ1

WHITE-USB-KEY (Software Protection Key)



UTY-PEGXZ1



### Convertors / Adaptors



**Network Convertor** for LonWorks® UTY-VLGX





KNX® Convertor for VRF UTY-VKGX



KNX® Interface FJ-RC-KNX-1i



Wireless LAN Interface FJ-RC-WIFI-1



Network Convertor for single split UTY-VTGX DC power supply type



**Network Convertor** for single split UTY-VTGXV AC power supply type



**Network Convertor** for Group Remote Controller UTY-VGGXZ1



**External Switch Controller** UTY-TERX



**Signal Amplifier** UTY-VSGXZ1



Thermostat convertor NEW UTY-TTRX



**Pressure Sensor Kit** for V-III tropical series\* NEW UTY-SPWX



# **OPTIONAL PARTS**

### **Panels**

For Cassette type

### Cassette Grille

UTG-UFGC-W

For Compact Cassette type



### Cassette Grille

UTG-UGGA-W

For Cassette type



### **Cassette Grille**

NEW UTG-UKGD-W

For Circular Flow Cassette type



### **Cassette Grille**

NEW UTG-UKGA-B

For Circular Flow Cassette type



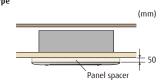
For Cassette type

### **Wide Panel** UTG-AKXA-W For Cassette type Panel 600 (mm)

### **Panel Spacer**

UTG-BGYA-W

For Cassette type



### **Insulation Kit** for High Humidity

UTZ-KXRA

For Cassette type

UTZ-KXGC

For Compact Cassette type



### Air Outlet Shutter Plate

UTR-YDZB

Others

### For Compact Cassette type

Shuts the air outlet when only using as 3 blow out.



### Air Outlet Shutter Plate

UTR-YDZK

For Cassette type

Shuts the air outlet when only using as 3 blow out.



### For Ceiling type

**Drain Pump Unit** 

UTR-DPB24T For Ceiling type



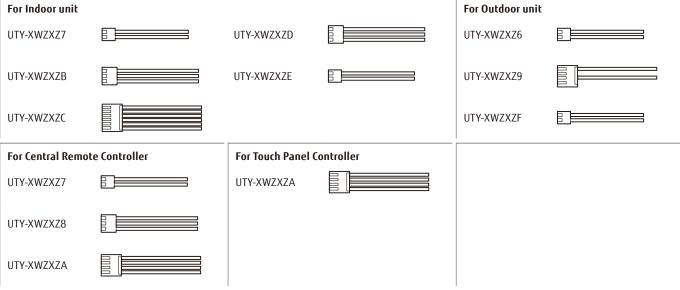






### Others For Duct type Flange (Round) Flange (Square) Remote Sensor Unit UTD-RF204 UTD-SF045T UTY-XSZX For Medium Static Pressure Duct type / Ceiling type For Medium Static Pressure Duct type For All Duct type New amenity space can be offered by installing the Remote sensor. Long-Life Filter Auto Louver Grille Kit **Drain Pump Unit** UTD-LF25NA UTD-LF60KA UTD-GXTA-W (for ARXD07/09/12/14, ARXK07/09/12/14) UTZ-PX1NBA UTD-GXTB-W (for ARXD18, ARXK18) For Medium Static Pressure Duct type For High Static Pressure Duct type For Medium Static Pressure Duct UTD-GXTC-W (for ARXD24, ARXK24) For Slim Duct type / Mini Duct type

## Communication system: External Connect Kit



# **FUNCTION LIST**

_			Indoor unit										
				Cassette		illuoc	n dilic		Duct				
		4-way Compact	4-1	way	Circula	ar Flow	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Static Pressure		
Тур	e	AUXB 07/09/12/14/18/24 GALH, AUXB 07/09/12/14/18/24 GATH	AUXD 18/24GALH	AUXA 18/24/30/34/ 36/45/54 GALH	AUXM 018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH	ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH		
Input	Operation / Stop					●UTY->	KWZXZD KWZXZB						
ı	All On / All Off												
ı	Batch Stop												
ı	Forced Stop					●UTY-) ○UTY-)	(WZXZD (WZXZB						
ı	Emergency Stop					● UTY-) ○ UTY-)	(WZXZD (WZXZB						
ı	Forced Thermostat off						KWZXZE KWZXZ7						
ı	Low Noise Mode Operation												
ı	Cooling/ Heating Priority												
ı	Outdoor Unit Operation Peak Control												
	Power Usage Information from Electricity Meter												
Output	Operation Status					●UTY-)	XWZXZC						
ı	Error Status	●UTY-XWZXZC											
	Indoor Unit Fun Operation Status		●UTY-XWZXZC										
	Auxiliary Heater Output								● UTY-XWZXZC				
	Base Heater												

		Indoo	r unit			Outdo	or unit	Cont	roller
Duct				Wall Mounted					
High Static Pressure	Ceiling / Floor	Ceiling	-	EEV external	-	J-III Tropical	V-III Tropical	Central Remote Controller	Touch Panel Controller
ARXC 45/60/72/90 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH	AJH 040/045/054 LBTAHN, AJH 040/045/054 LETAHN	AJH 072/090/108/ 126/144/162 LNTCH	UTY-DCGG	UTY-DTGGZ1
		●UTY-X CYTUO							
								● UTY-XWZXZ7 ○ UTY-XWZXZ8	●*2 ○*2
							●UTY-XWZXZ6		
			(WZXZD (WZXZB						
			(WZXZD (WZXZB				●UTY-XWZXZ6	●UTY-XWZXZ7 ○UTY-XWZXZ8	●*2 ○*2
		● UTY-> ○ UTY->	(WZXZE (WZXZ7						
							●UTY-XWZXZ6		
							●UTY-XWZXZ6		
							●UTY-XWZXZF		●*2 ○*2
		●UTY->	(WZXZC				OUTY-XWZXZ6	OUTY-3	(WZXZA
		●UTY->		OUTY-XWZXZ6	OUTY-3	(WZXZA			
		<b>●</b> UTY->	(WZXZC						
●UTY-XWZXZC									
							●UTY-XWZXZ9		
*2: Touch Panel Cor	stroller has these fun	octions for Dry conta	ct and Annly voltage	however ahove F	vtornal Connect Kit i	s not nacessary		Dry Contact	O: Apply Voltage

<sup>\*2:</sup> 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.

•: Dry Contact O: Apply Voltage

# SEPARATION TUBE etc.

paration Tube		
UTP-AX054A	UTP-AX090A	UTP-AX180A
Gas Pipe	Gas Pipe	Gas Pipe
Liquid Pipe	Liquid Pipe	Liquid Pipe
JTP-AX567A	UTP-LX180A for DX-Kit	
Gas Pipe		
Liquid Pipe		
eader		
UTR-H0906L / UTR-H1806L	UTR-H0908L / UTR-H1808L	
Gas Pipe	Gas Pipe	
dastipe	dostripe	
	<del></del>	TT
Liquid Pipe	Liquid Pipe TTTT	
	I	
utdoor Unit Branch Kit		
JTP-CX567A		
Gas Pipe	-	
Liquid Pipe	_	
/ Kit		
Model code ≤ 09 : UTR-EV09XB		
Model code ≧ 12 : UTR-EV14XB		
or Compact Wall Mounted type		

### **Specifications**

### Separation Tube

Model name		UTP-AX054A		UTP-AX090A	UTP-AX180A	1	UTP-AX567A
Total cooling capacity of indoor unit	kW	19.6 or less	28.0 or less		28.1 to 56.0		56.1 or more
Model name		UTP-BX090A		UTP-B	X180A		UTP-BX567A
Total cooling capacity of indoor unit	kW	28.0 or less	28.1 to		o 56.0	56.1 or more	

### Header

Madalassa	3-6 Bra	nches	UTR-H0906L	UTR-H1806L	
Model name	3-8 Bra	anches	UTR-H0908L	UTR-H1808L	
Total cooling capacity of	ooling capacity of indoor unit kW		28.0 or less	28.1 to 56.0	
Model name	3-6 Bra	anches	UTP-J0906A	UTP-J1806A	
model flame	3-8 Branches		UTP-J0908A	UTP-J1808A	
Total cooling capacity of	Total cooling capacity of indoor unit kW		28.0 or less	28.1 to 56.0	

### Outdoor unit Branch kit

Model name		UTP-CX567A (for V-III Tropical)						
Model name	2 outdoor units	1						
	3 outdoor units	2						

### EV Kit

Model name	UTR-EV09XB	UTR-EV14XB					
Application Codel	ASHE007GTAH ASHE009GTAH	ASHE012GCAH ASHE014GCAH					

### Reducer kit

Model name	UTP-NX18A	UTP-NX54A
Applicable Model	AUXK018GTAH AUXM018GTAH AUGK018GTAH AUGM018GTAH	AUXK036/045/054GTAH AUXM036/045/054GTAH

# SUPPORT

Our know-how supports you not only during the product release but also from guiding implementation to product maintenance.

AIRSTAGE™ SUPPORT

AIRSTAGE™ / RAC SUPPORT TOOL

QUICK SERVICE & MAINTENANCE

SERVICE TOOL

WEB MONITORING TOOL

Category	Information Material								Tool							
	Product Sales Training Material	Product Technical Training Material	Product news	Brochures	Feature Promotion Movie	Operating Manual	Design & Technical Manual	Certificate Data	2D CAD Data	3D CAD (Revit) Data	Installation Manual	Service Manual	Design Simulator (RAC, PAC, VRF)	CFD Simulation	Service Tool / Web Monitoring Tool	Mobile Technician
Product Training	•	•														
Product Information Seek			•	•	•	•	•									
Technical Information Seek							•	•								
Model Selection							•						•			
Design							•		•	•						
Verification														•		
Installation							•				•					
After sales and Service												•			•	•





## **AIRSTAGE™ SUPPORT**

Fujitsu General provides a variety of product and technical 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.

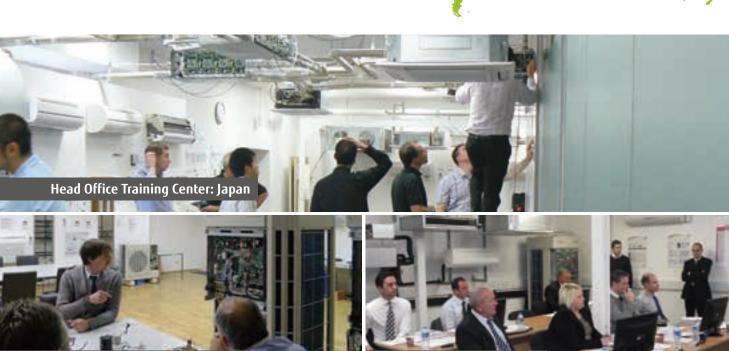
#### **Training**

Fujitsu General has many training facilities around the world that regularly conduct specialized product, technical, and service training. These research facilities also support the development of people with high technical capability.

#### **Features**

- Designing AIRSTAGE™ Systems
- Control System on-site training







**Europe Training Center: Germany** 



Europe Training Center: U.K.







#### **Technical information**

We provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make model selection and estimation easy.

#### **Features**

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



#### **Product information**

New product information is provided in the form of documents and movies for every new model released. These can be downloaded from a private section of our website. To access this website, please contact your Fujitsu representative.

#### **Features**

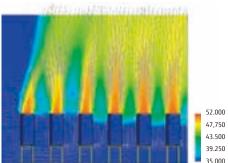
- Product News
- Brochures & All Manuals
- Feature Promotion Movie

### **Technical support**

Technical support is provided at every stage from design to installation to assist in providing the most suitable air conditioning solution.

#### **Features**

- CFD Simulation
- Guide line
- Commissioning Support





Commissioning Support

## AIRSTAGE™ /RAC SUPPORT TOOL

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, Excel, or Acrobat formats, and group the relevant CAD data for your project.

### **Design Simulator**

## Automatically create model selection information

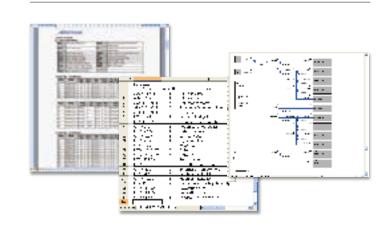
- Each unit can be automatically set by entering the required performance, type, and temperature conditions for each indoor unit and then dragging and dropping into the outdoor unit.
- Piping and wiring diagrams can be created automatically and it is easy to set branches, grouping, and options.
- The 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 automatically.



# 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)(doc)
- Excel format (csv)
- Acrobat format (pdf)
- 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.



User side (PC)

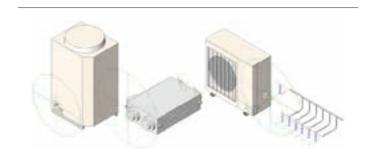
FTP server side (PC)

## BIM Building Information Modeling

Fujitsu General 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.

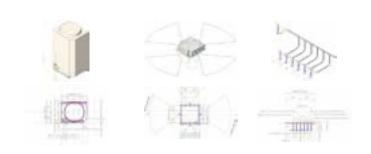
#### 3D and 2D product data

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



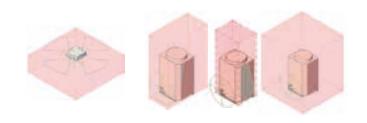
#### **Installation limitation**

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.



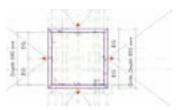
### **Update your Design Simulator**

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.





## **QUICK SERVICE & MAINTENANCE**

If trouble should occur in a unit or system, abundant support tools such as trouble code display at the product, Service Tool that allows checking of the detailed status of the entire system, and remote monitoring tool that uses the internet, etc. support quick service and maintenance anywhere and at any time.

## Mobile troubleshooting tool for iPhone & Android



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.



### Easy maintenance & monitoring

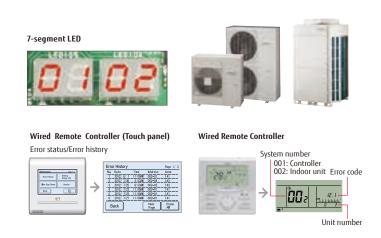
#### Design for easy maintenance

Design for easy maintenance

The air conditioner operating status and trouble status of the detailed are displayed at the 7-segment of the outdoor unit PCB or on the remote controller screen.

The unit status can be checked rapidly and quick response is also possible.

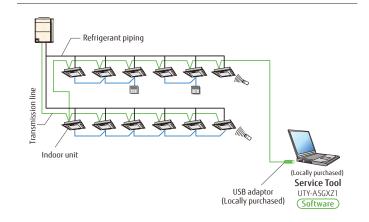
- Operation mode status
- Discharge temperature/Pressure status
- Compressor operation indication
- Address/Type/Number of outdoor unit
- Error code.



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

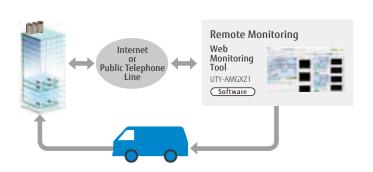
Error diagnosis by Service Tool The unit status details for VRF system can be checked on PC screen by connecting Service Tool. Quick countermeasures can be taken

- Operation status/control
- Monitoring operating condition
- Monitoring sensor data
- · Indication of trend graph
- · Error history
- Indication of refrigerant circuit diagram
- Automatic operation check for refrigeration cycle



#### Remote monitoring

VRF system operating status and trouble status details can be constantly and remotely monitored over the Internet, etc. Rapid cooperation with the service personnel are also possible.



## **SERVICE TOOL**

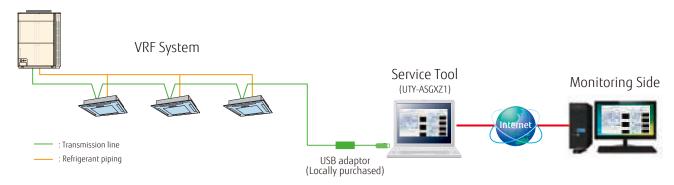
#### **UTY-ASGXZ1**

#### Extensive monitoring and analysis functions for installation and maintenance

- Operation status can be checked and analyzed to detect even the smallest abnormalities
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF network system) can be controlled and monitored for large scale buildings or hotels
- This software can be connected to any point of transmission line with USB adaptor (locally purchased)
- \* The saved data can be displayed offline. However, the data saved by the following model cannot be displayed.
- UTR-YSTB/UTR-YSTC (Service Tool)
- UTR-YMSA (Web Monitoring Tool)

#### **Functions**

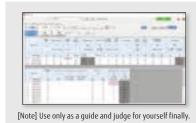
#### System Over View



#### Automatic operation check for refrigeration cycle

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





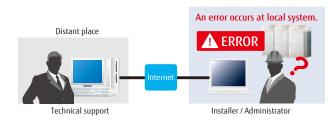
Whether each sensor value is normal is judged automatically.

- ☑ Discharge temperature normal value <mark>○k</mark>
- Super heat volume normal value OK
- ₩ High pressure pipe normal value OK
- Low pressure pipe normal value ...etc.



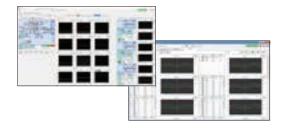
#### Remote technical support & maintenance

On-site check screen can be shared with the skilled person in a distant place. When visiting for troubleshooting on site, operation status can be shared in real time and get assistance easily. Online chat function helps to support on site staff.

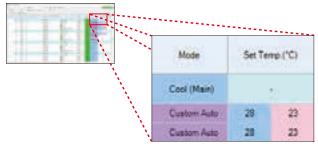


#### Various trend graph display

Previously, only 3 kinds of each sensor value can be displayed. However, multiple graphs can be displayed in new Service Tool depending on the situation. The refrigeration cycle can be checked in detail.



### **NEW Custom Auto Function**





Custom Auto operation display

Custom Auto setting

#### **Function summary**

	UTY-ASGXZ1
Interchangeability of equipment	•
Indication of equipment list	•
Operation control	•
Indication of refrigerant circuit diagram	•
Commissioning tool	•
Storage and CSV output of operating history (sensor data)	•
Indication of trend graph	•
Printing of trend graph	•
Monitoring and screen display of abnormalities	•
E-mail automatic transmission of abnormalities	=
Network Topology Analyzer	•
Remote Setting	•
System Time Setting	•
Central Release	•
Model Name Writer	•
Error Memory Reader	•
Time Guard Information	•
Automatic operation check for refrigeration cycle	•
Many different kinds of graph display	•
Automatic update of software	•
NEW Custom Auto function	•
NEW Display of individual louver control function	•
NEW Display of human sensor control function	•

#### Personal computer system requirements

	UTY-ASGXZ1	
Operating system	<ul> <li>Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Pro (32-bit or 64-bit)</li> </ul>	
CPU	1 GHz or higher	
Memory	<ul> <li>1 GB or more (for Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit])</li> <li>2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])</li> </ul>	
HDD	40 GB or more of free space	
Display	1366 x 768 or higher resolution	
Interface	USB port for U10 USB Network Interface and Software protection key	
Software	Internet Explorer® 11 or Microsoft Edge	

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

#### <PACKING LIST>

Name and shape	Quantity	Application
WHITE-USB-KEY (Software protection key)		Software protection key to be connected to USB port on the Service Tool-installed PC. These products run only on a PC with WibuKey.

<sup>•</sup>Personal computer that satisfies the following system requirements

## WEB MONITORING TOOL

#### **UTY-AMGXZ1**

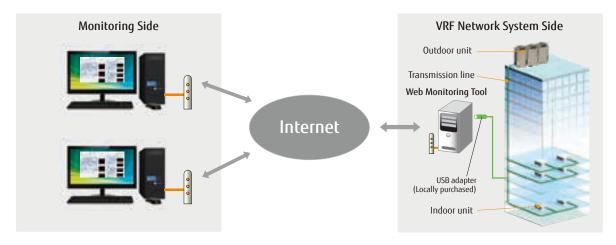
#### **Product features**

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet \*1.
- Requires either a dedicated internet connection or public telephone line.
- Determination of an error occurrence can be made through error warnings and equipment status information obtained from a remote location.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in offline mode of the service tool.
- Monitoring side computer is not required to install special software, requires only general web browser.

\*1: Use of internet mail system required.

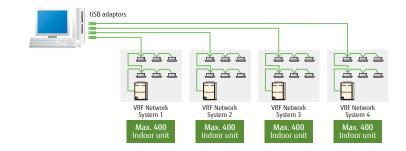
#### **Functions**

#### Web Monitoring System

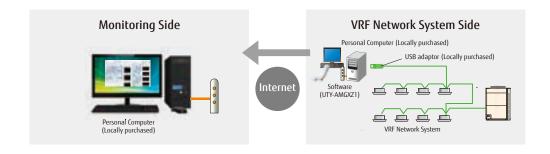


#### Support 4 VRF network systems

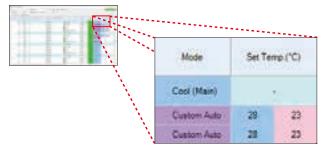
USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units.
Suitable for large-scale buildings or hotels.

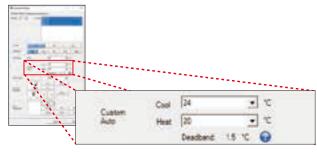


#### System components



### **NEW Custom Auto Function**





Custom Auto operation display

Custom Auto setting

#### **Function summary**

	UTY-AMGXZ1
	UTY-AMGXZI
Interchangeability of equipment	•
Indication of equipment list	•
Operation control	•
Indication of refrigerant circuit diagram	•
Commissioning tool	•
Storage and CSV output of operating history (sensor data)	•
Indication of trend graph	•
Printing of trend graph	•
Monitoring and screen display of abnormalities	•
E-mail automatic transmission of abnormalities	•
Network Topology Analyzer	•
Remote Setting	•
System Time Setting	•
Central Release	•
Model Name Writer	_
Error Memory Reader	=
Time Guard Information	•
Automatic operation check for refrigeration cycle	=
Many different kinds of graph display	•
Automatic update of software	•
NEW Custom Auto function	•
NEW Display of individual louver control function	•
NEW Display of human sensor control function	•

#### Personal computer system requirements

	UTY-AMGXZ1	
Operating system	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	<ul> <li>1 GB or more (for Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit])</li> <li>2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])</li> </ul>	
HDD	40 GB or more of free space	
Display	1366 x 768 or higher resolution	
Interface	USB port (for 10 USB Network Interface Max.4, Software protection key)  Either of the following interface is required for remote connection:  - Public Telephone Line: Modem is required  Internet using LAN: Ethement port is required	
Software	Internet Explorer® 11 or Microsoft Edge	

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

#### <PACKING LIST>

Name and shape	Quantity	Application
WHITE-USB-KEY (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC. These products run only on a PC with WibuKey.

<sup>•</sup>Personal computer that satisfies the following system requirements







ISO 9001 ISO 14001 Certified number: 01 100 075229 Certified number: 01 104 9245 Fujitsu General (Thailand) Co., Ltd.



ISO 9001 ISO 14001 Certified number: 01 100 79269 Certified number: CNBJ312244-UK Fujitsu General (Shanghai) Co., Ltd.





ISO 9001 ISO 14001 Certified number: 15917Q20073R5M Certified number: 15915E10020R4M Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

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