

## ISO 14001



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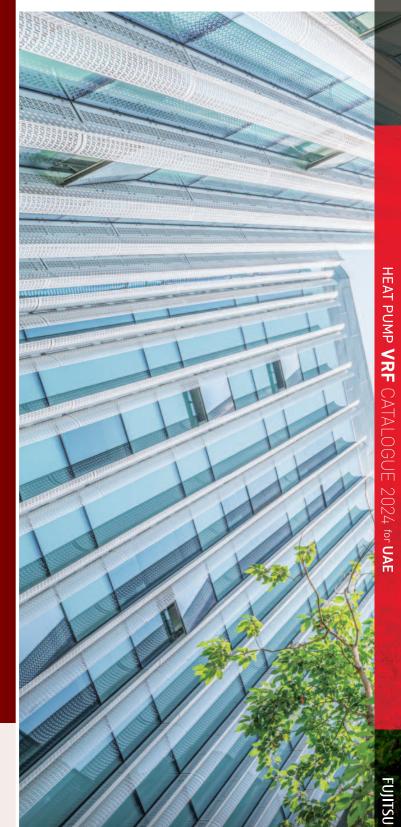


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## **O**GENERAL



**VERAL LIMITED** 

## HEAT PUMP VRF CATALOGUE 2024

for UAE

FUJITSU GENERAL LIMITED

**FUJITSU GENERAL Way** 

Our Mission

## Living together for our future

Through innovation and technology, we deliver a brighter future with the peace of mind to our customers and societies around the world.

### **Our Philosophy**

### Act Spontaneously

We embrace new challenges by investing in ourselves for personal growth, and through continuous creativity with a spontaneous attitude.

### Develop Our Team

We respect and value our people, and optimize their abilities through fostering culture and diversity, and utilizing a collaborative effort focused on communication.

Value Integrity

To achieve our goals, we always act with integrity and shared ethics.

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**VRF OUTDOOR UNITS** 

VRF LINE-UP ...... 44

### For SMALL BUILDING

### VRF J-III Tropical Series Tropical Series

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



### 50

46

### VRF V-III Tropical Series Troduction by order

Heat Pump Modular type for heating or cooling operation 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



### **VRF INDOOR UNITS**

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## **OUR HISTORY**

Overseas Air Conditioning Business since 1971 VRF Business since 2001

FUJITSU GENERAL's VRF 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

S

& Cooling

8 to 42HP / Heat pump

2007

2009 High efficiency and Compact design model Extensive lineup from 8HP to 48HP in 2HP increment / Heat pump

2012 High efficiency and Compact design model 8 to 48HP / Heat Recovery 2013 Tropical spec model Extensive lineup from 8HP to 42HP in 2HP

increment / Heat pump

2015

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



VRF V-II 뒚



VRF **V-III** 

### For Residential & Light Commercial Use ....

2004 Small VRF Series is released. 6HP / Heat pump

2011 High efficiency and small capacity model 4HP to 6HP / Heat pump

VRF J-II

VRF **V** 



VRF J-IIS

VRF **V-II** 

2016 High efficiency and small capacity model 4HP to 6HP / Heat pump

VRF VR-II



VRF J-III

2017 Tropical spec model High efficiency and compact design model 4HP to 6HP / Heat pump

### 2017 High efficiency and compact design model 10HP to 12HP / Heat pump



VRF **J-III** 🌆



VRF J-IIL

VRF 🤳



1936 Established as Yaou Shouten Ltd.

1971 Air conditioner exports to Middle East. **Certification Acquisition of** 

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. **New Product Initiatives** Fujitsu introduced inverter technology which used R410A refrigerant.





electronic equipment.





### 2016

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



an EU directive on the restriction of the use of certain hazardous substances in all consumer electrical and



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



## WORLDWIDE LOCATIONS

Under a system of five bases in Europe, the Middle East, Asia and Oceania, North and South America, and Japan, the company promotes Globalization from a worldwide perspective while emphasizing the actual conditions in each region.



JAPAN Head Office



Technology research building (Japan)





Fujitsu General Sales & Trading (Shanghai) Co., Ltd.



Co., Ltd. (Taiwan)



Fujitsu General (EURO) GmbH (Germany)

(UK) Ltd. (U.K.)

Bangkok Office (Thailand)





• Air conditioner solution center "THE AIRSTAGE" in Manhattan, New York

• Fujitsu General America, Inc.



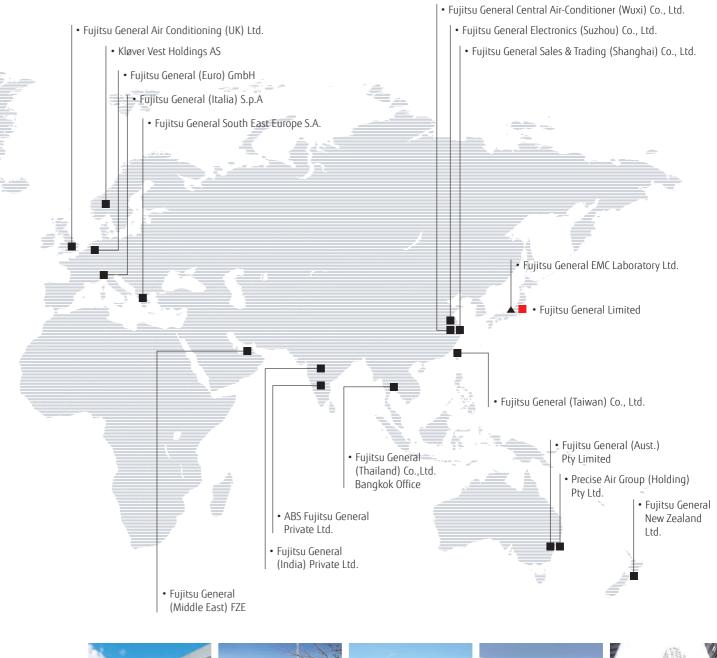


• Fujitsu General Do Brasil Ltda

East Europe S.A. (Greece)



Fujitsu General (India) Private Ltd. (India)





(Australia)



Precise Air Group (Holding) Pty Ltd. (Australia)

Ltd. (New Zealand)





ABS Fujitsu General Private Ltd. (India) (Brasil)

Fujitsu General Do Brasil Ltda.

(U.S.A.)

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Fujitsu General New Zealand

Fujitsu General America, Inc.



Fujitsu General (Middle East) FZE (U.A.E.)



Kløver Vest Holdings AS (Norway)



FUJITSU GENERAL SOLUTION CENTER "THE AIRSTAGE" (U.S.A.)



## **GLOBAL BUSINESS ACTIVITIES**

We have been recognized for our activities in advertising, human resource development and customer service, as well as for our community-based social contribution activities in each region, winning numerous awards and achieving a high level of customer satisfaction.

### North and South Americas





HVAC trade shows in Bra:





Call center



Middle East







New product seminar in UAE

Europe



HVAC trade show in Germany



Training in Germany

-

2012



HVAC trade show in Germany





Event in the United Kingdom



International authoritative design awards





The NEWS Dealer Design Awards

8 **OGENERAL** 



TOP OF MIND 2016 First prize in "MARCA DE EQUIPAMENTO DE AR-CONDICIONADO" category of "CLIMATIZACAO" division



Superbrands is the world's largest independent arbiter



sports and lifestyle.





reddot winner 2020

A product design competition One of the famous design that has been held since award in the world. Designs 1955. Products that win the are judged on innovation award are given the "Red Dot" and aesthetics, as well seal, a sign of international recognition of quality. as their benefit to users, clients/brands, and society.



ProductReview.com.au's annual awards are selected from products and services that have been well-rated by the ProductReview community.



HVAC trade show in Australia

Oceania

Launch event in New Zealand





































### Asia



Thanksgiving party in Taiwan







New product presentation seminar in Singapore



Service training in Vietnam



Voted by Australians as the 'Most Trusted Brand – Air Conditionina Category 5 Years Running'



China State Construction Engineering Luban Prize



The Good Design Award is an award sponsored by the Japan Institute of Design Promotion, and is given once a year to items of outstanding design.



## **PROJECT REFERENCES**

## Introduced in over 50 countries worldwide

Highly popular for their excellent quality, energy efficiency, and ease of installation, Fujitsu General's products are installed in a wide range of buildings around the world, including high-rise office buildings, stores, hotels, public facilities, schools, hospitals, and residences.











### For Light commercial use

- Shop in Europe
   Factory in Europe
- 3 School in Asia
- 4 Hospital in Asia 5 Office in Asia
- 6 Shop in Oceania
- 7 Office in Oceania
- 8 School in the Middle East
- 9 Public facility in the United States









### For Commercial use

- 10 Public Square in Asia
- 11 Hotel in Asia
- 12 Hotel in Asia 13 Public facility in Asia
- Apartment in Oceania
- 15 Apartment in Oceania
- 16 Hotel in the Middle East
- 17 Hotel in the Middle East



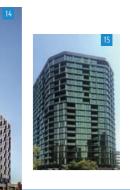


















### For Residential use

Villa in the Africa
Residence in Oceania
Residence in the United States
Villa in the 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.



### Overseas manufacturing companies



Fujitsu General (Shanghai) Co., Ltd. (China)



F.G.L.S. Electric Co., Ltd. (China)



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



Fujitsu General Electronics Ltd. (Japan)



FGA (Thailand) Co., Ltd. (Thailand)



TCFG Compressor (Thailand) Co., Ltd. (Thailand)

## **HIGH QUALITY DEVELOPMENT & PRODUCTION**

### Advanced Research Facility and Equipment

### Performance Testing





Air Volume Measurement Room

Measure air volumes of the air conditioners from compact room air conditioner 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.

Compressibility

testing

**Transportation & Handling** 

### Practical Test Room Check on whether the air conditioners performance under the actual house conditions is sustainable



Check on whether the electrical box of the outdoor unit is protected by rain waters with Typhoon like wind.



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.

### 60 m Height Difference **Testing Tower** Objective is to confirm oil circulation of compressor for reliability



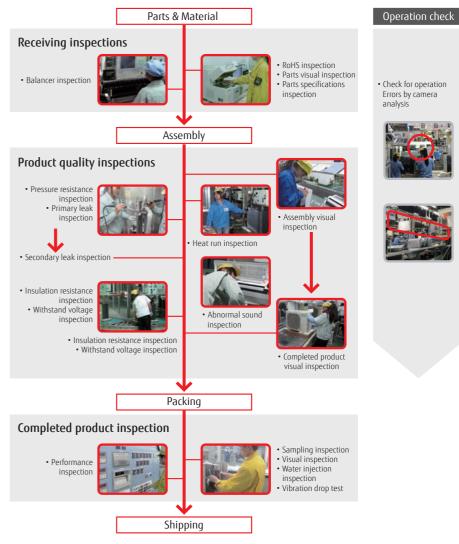
## FACILITIES

### Acquisition of ISO 9001 and ISO 14001

ISO 9001 ISO 14001 () Number of compar

North America Sales subsidiary (1) Each of overseas production bases (5 companies) has completed the acquisition of ISO 9001 and ISO 14001 individually. In 2012, overseas sales bases (11 South America companies) acquired the certification of ISO 14001.

### **High Product Quality** Assurance



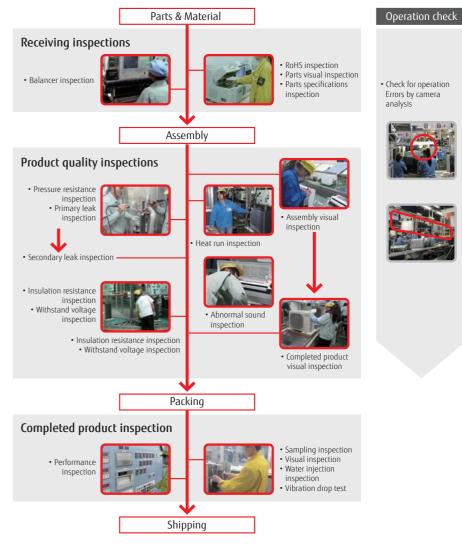
All Fujitsu General factories have acquired ISO 9001, and have built a quality control system common around the world. High quality products are offered to all over the world based on stringent quality inspections.

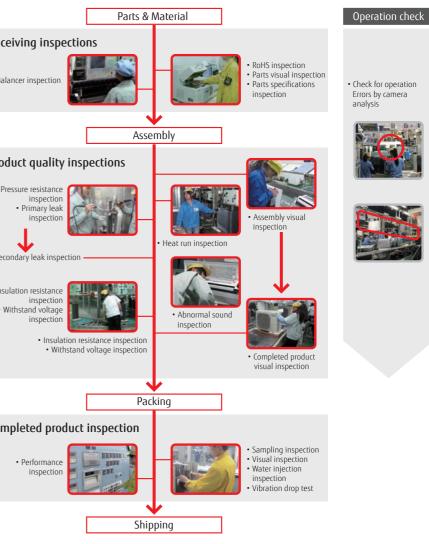
### **Receiving inspection**

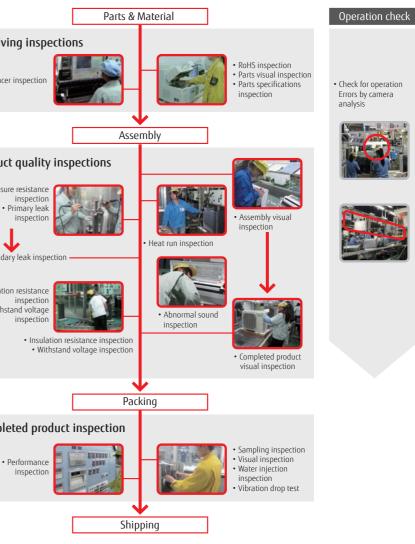
Parts procurement requires a supplier's test report. European regulation RoHS inspection is also performed by special test department in-house. Total number inspection is performed especially on main parts to remove defectives.

### Stringent product quality inspection

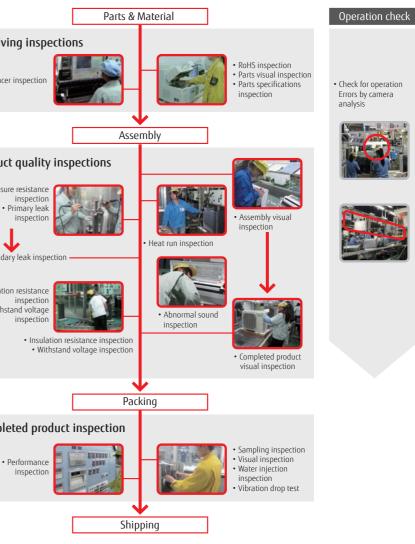
Stringent quality inspection is carried out at all production processes. High quality is maintained by stringent checks by inspectors and repetitive inspection.









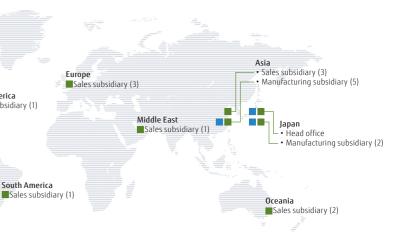


**Testing Laboratory** 

Fujitsu General EMC Laboratory Limited



Vibration testing



**OGENERAL** 15

# **OUR SOLUTION FOR ALL**

Fujitsu General provides the best solutions suitable for properties.

# **PROPERTIES**



## **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



Large space air conditioning in a family поол





### 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



**DE2** 

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1788 FAN

CO&O MODE

^

I TEMP.

## 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.



Wired remote controller (design type) UTY-RVRG

### Simple and stylish design that harmonizes with the space

Wired remote controller (design type) with sophisticated design. The touch panel can be easily operated by swiping vertically and horizontally.







### 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.



Mini Duct



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

**OGENERAL** 21

# 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.



Central Remote Controller UTY-DCGGZ3

LAN

## Central remote controller with improved operability

Controls the temperature of each room easily, and manages and sets the operation control for a week. Energy-saving management by setting upper and lower temperature limits and operating prohibitions.





## Control and monitoring

РС

You can operate the main unit from your desk. Non-administrators can also operate the air conditioners with a computer, smartphone or tablet PC.



iOS, Android and/or Windows









Wall Mounted

### 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.





Cassette Circular Flow

## Comfortable room air conditioning without airflow feeling

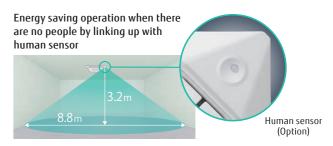
Circular Airflow Cassette blows out in all directions without temperature unevenness



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







# Light Commercial RESTAURANT, SHOPS

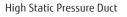
Fujitsu General provides perfect total air conditioning systems that offer smooth support by tenant, by purpose and by customer visit frequency in shops and restaurants with multiple lighting and a high density of customers.

## RESTAURANT



# Appropriate air conditioning in the atrium space

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





For ambiences with dim lightings

Cassette Circular Flow Series



## 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)



**SHOPS** 





### 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°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.



### Difference in height Up to 110 m

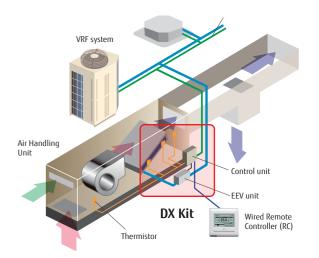
The height difference between the outdoor unit and the indoor unit is usually 50 m for the V-III Series, but by installing the pressure sensor kit it is possible to expand it to 110 m. (\*This product can be used connected only V-III tropical Series.)



Pressure Sensor Kit

## 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



**OGENERAL** 27

### 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. Round High ceiling mode This cassette can be installed up to a height of 4.2 m (36/45/54). Standard mode 3.2 m High ceiling mode 4.2 m

## **VRF CORE TECHNOLOGY**

HIGH ENERGY EFFICIENCY HIGH RELIABILITY DESIGN FLEXIBILITY MORE COMFORT EASY INSTALLATION EASY SERVICE & MAINTENANCE

VRF systems can be designed to create an air conditioning solution to suit most buildings requirements.

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**

### **Operation Performance is Efficiently Controlled.**

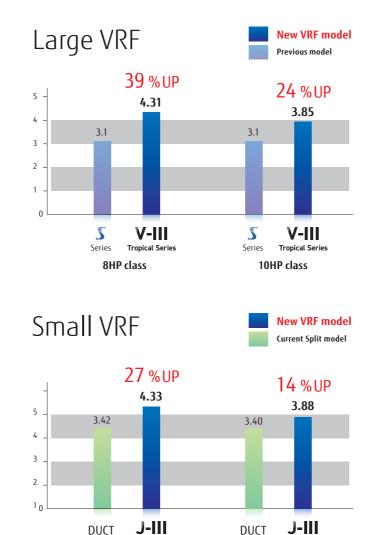
### Room temperature set point limitation

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

## Highly Energy Efficiency

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





DUCT

Split

Tropical Series

**6HP class** 

DUCT

Split

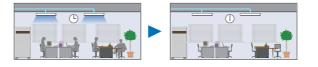
**4HP class** 

Tropical Series

### 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.



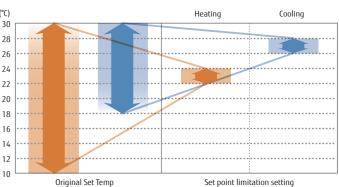
### Energy saving management

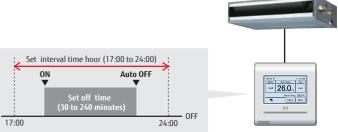
A variety energy saving operations can be set and managed depending on the season, weather, and time period. Excellent energy saving operation is performed by using System Controller.

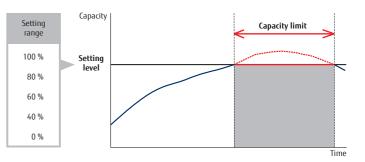


### Capacity limit operation

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.







### **VRF CORE TECHNOLOGY**

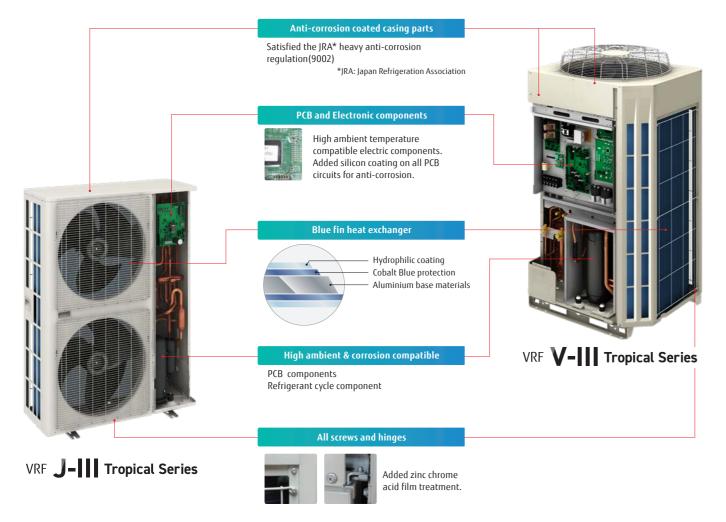


### Life-extending operation

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

## Heavy anti-corrosion treatment design





### 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.

### **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 Operation

### Advanced refrigerant control

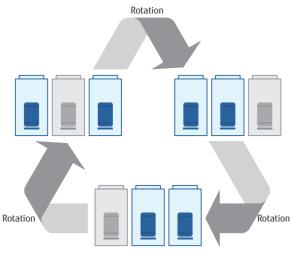
Innovative compressor control logic has been introduced in order to balance the refrigerant mass flow rate of each outdoor unit by controlling the inverter speed.

### Liquid flow back protection

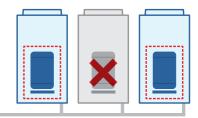
By adopting a large sized accumulator, the not completely vapourised refrigerant stays inside of the accumulator to ensure no liquid refrigerant is being fed into the compressor.

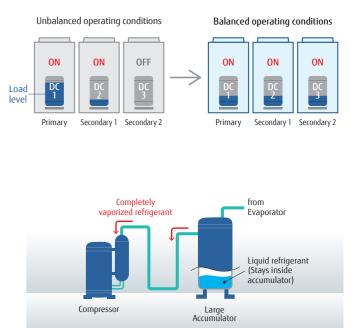
### **Oil Recovery operation**

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



The start and stop timings are alternated among connected compressors.





## **DESIGN FLEXIBILITY**



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

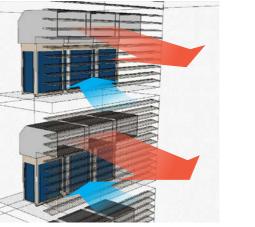
Total pipe length 1,000 m maximum

### Actual pipe length Height difference between outdoor and indoor units 165 m 50 m maximum (V-III tropical) NOTE: Possible to extend the height difference by using option parts UTY-SPWX For the outdoor unit installed below the indoor units: 40m maximum Т Height difference 110 m\* maximum \* It is only when using the optional Pressure sensor kit. This product can be connected only to V-III Series. Pipe length from first

### High static pressure

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

Powerful discharge air prevents a short-circuit.



Previous model



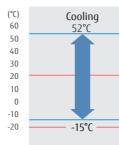
### High capacity connection

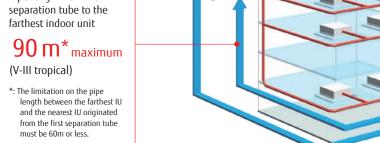


High ambient operation design 🌆

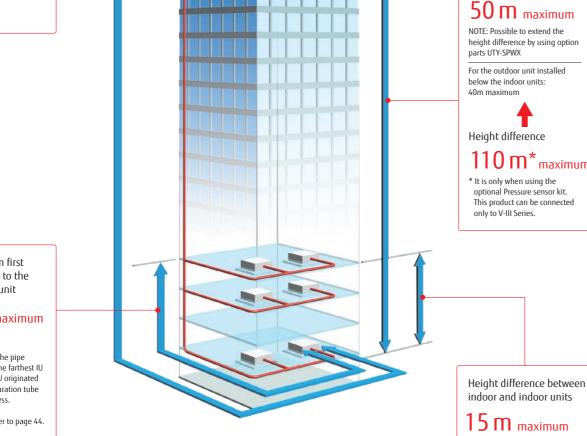
Installation in extreme temperature conditions is possible due to an increase in operational range.





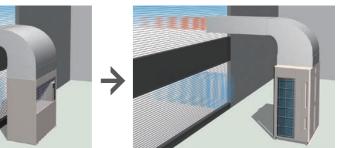


Note: J-III tropical refer to page 44.



### 82 Pa (V-III tropical) 80 Pa (V-II tropical)

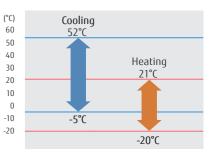
V-III tropical , V-II tropical



Large diameter fan and DC motor has been utilized allowing an external static pressure of 80Pa to 82Pa. This is approximately 2.6 times greater than the previous model.



### VRF J-III Tropical Series



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

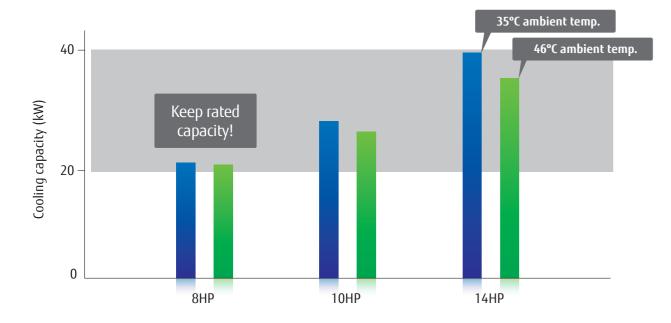
### **VRF CORE TECHNOLOGY**



## Powerful cooling capacity design



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

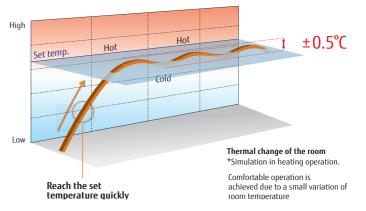
## sound

### Non-stop oil recovery operation

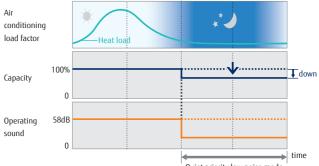
A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.

\*: VRF VR-II Series is not available



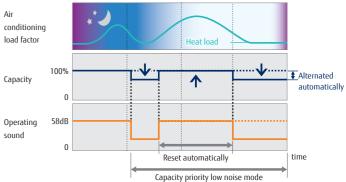


### Quiet priority setting



Quiet priority low noise mode

### Capacity priority setting



Previous mod V-III Series (Heating operation Operation stopped Non-stop oil at oil recovery recovery operation

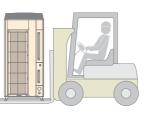


## Easily transported

A lifting strap can be hooked onto an outdoor unit Design of outdoor unit allows for lifting straps to be used



Transportable by forklift The outdoor unit can be lifted and transported by forklift.



Fits into a small elevator.



### Easy access

The removable L-shaped front panel provides more room for installation and service work. Multiple installations can be performed easily and efficiently even in tight spaces.



installation intervals

## Flexible piping connection

Piping and wiring can be accessed from the front, left, right, and bottom.

### Simple wiring work

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

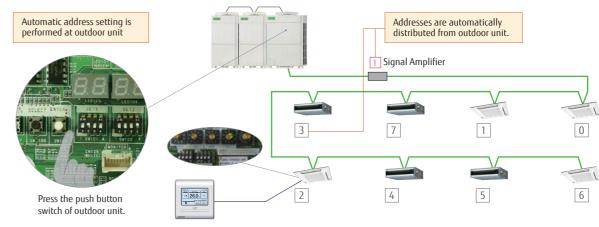
### Easy evacuation - using vacuum mode function

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 and signal amplifier can be set through the automatic function setting on the outdoor unit PCB.



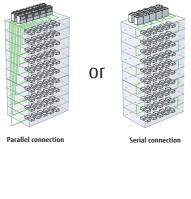
Manual address setting from indoor unit and remote controller is also possible.

### Easy commissioning by Service Tool

### Service Tool (UTY-ASGXZ1)

The Service Tool checks the refrigerant temperature and pressure, and the operating status of the electronic expansion valves, making it easy to determine if the units are connected properly.

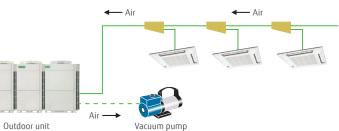


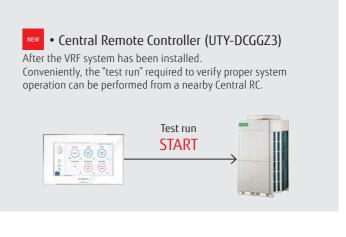


3.600 Note: The automatic address setting i

Maximum wiring length:

not available on a serially connected multiple refrigerant system.





### **VRF CORE TECHNOLOGY**

## **EASY SERVICE &** MAINTENANCE

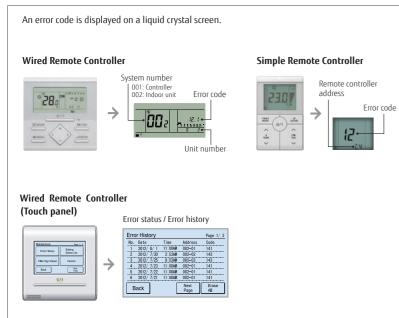


### Design for Easy Maintenance

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



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



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



7-segment LED

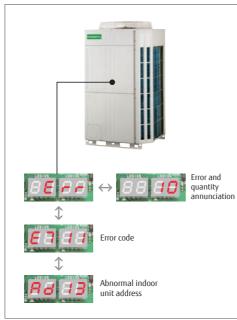
• Operation mode status • Discharge temperature/Pressure status

 Compressor operation indication • Address/type/number of outdoor unit

Movable PCB panel Easier for maintenance work behind the PCB



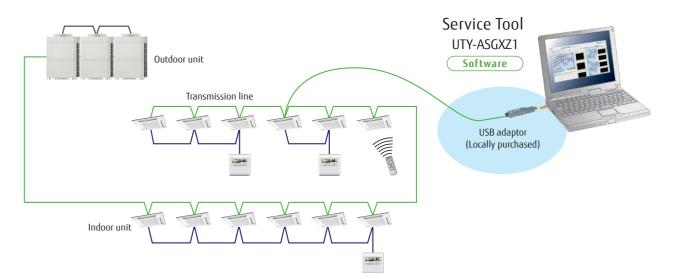
Error status can be checked easily by outdoor unit display



### 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**

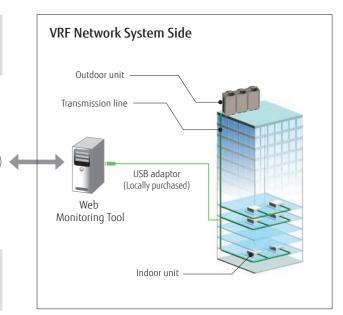
The Web Monitoring system allows you to view system operation anytime over the internet, ensuring issue free operation. The operating VRF network system in the building can be monitored real time over the Internet.

### Monitoring Side



10 Public Telephone Line





## **VRF OUTDOOR UNITS**

VRF LINE-UP HEAT PUMP TYPE J-III TROPICAL Series HEAT PUMP TYPE V-III TROPICAL Series



The VRF (V-III tropical & J-III tropical) has a total of 49 models to meet the building Air-conditioning requirement

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

## **VRF LINE-UP**

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

### Outdoor units range

HP		4	5	6	8	10	12	14	16	18*	20	22	24	26	28*	28	30	32	34*	34	36*	36	38*	38	40	42	44*	46*	48	50*	52*	54*
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	234,000	252,000	252,000	270,000	288,000	306,000	306,000	324,000	324,000 3	342,000	342,000	360,000 3	78,000 3	396,000	414,000 43	2,000 4	50,000	468,000	486,000
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	19.5	21.0	21.0	22.5	24.0	25.5	25.5	27.0	27.0	28.5	28.5	30.0	31.5	33.0	34.5 3	36.0	37.5	39.0	40.5
VRF <b>J-III</b> Tropical Series Heat Pump	High Efficiency (Single phase)	Ajho4olBTBHN	Ajh045LBTBHN	Ajhos4lbtbh	4																											
	High Efficiency (3 phase)	Ajho4oletBhN	Ajh045LETBHN	Ajh054LETBHM	1																											
2	Space saving				Aj*072LN**H*	AJ*090LN**H*	AJ*108LN**H*	Aj*126LN**H*	Aj*144LN**H*	AJ*162LN**H*	Aj*180LN**H*	Aj*198LN**H*		<b>A</b> *234LN**H*	1000 A)+2521.N++++	AJ*2521.N**H*									<b>1111111</b>		<b>1</b> 1*396LN**H*	AJ¥414LN**H* AJ¥43	ICTO I	*450LN**H* A	J¥468LN**H*	<b>1</b> 1/4486LN**H*
Heat Pump	saving							aj*144LN**H*	AJ*162LN**H*			Aj*216LN**H*		A/*252.N**H*			4*288LN**H*			AJ*324LN**H*		*342LN**H*		Aj*360LN**H* Aj*	*378LN**H* AJ2	]]]]]]]  *396LN**H*	AJ*414LN**H*					



\*: Not available to sale in some regions

Space saving: AJ\*\_LN\*\*H\* : AJH\_LNTCH-U, AJG\_LNLBH High Efficiency: AJ\*\_LN\*\*H\* : AJH\_LNTCH-UH, AJG\_LNLBHH

### **ØGENERAL** 45

### Features

## HEAT PUMP TYPE VRF J- Tropical Series



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

### System Outline

### **High Energy Efficiency**

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

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

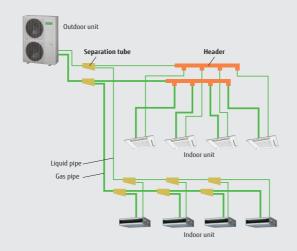
Space saving design and long piping design allow for flexible installation on the roofs or balconies of smalland medium-size buildings. Multiple indoor units of various capacities and types can be connected.

### System configuration example

• This system is used for small and medium-sized buildings. 1

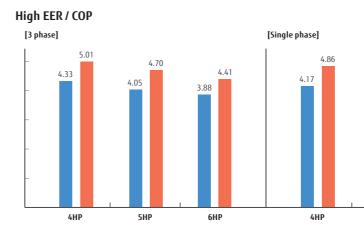
refrigerant system is used for each outdoor unit.

• Connection of multiple indoor units using separation tubes and headers.



### **Energy efficiency**

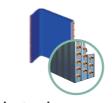
Top class high COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.



### Advanced high efficiency technology



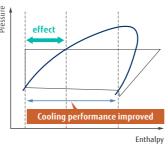
Large propeller fan High performance and low noise realized by large propeller and optimization of angle.

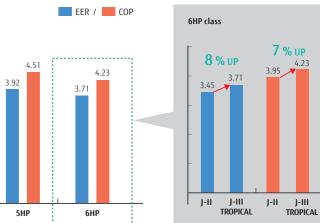


Large heat exchanger Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.



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





### All Inverter



### **INVERTER control PCB** Efficiency is improved by mounting of

new active filter module.



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



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

Made in JAPAN

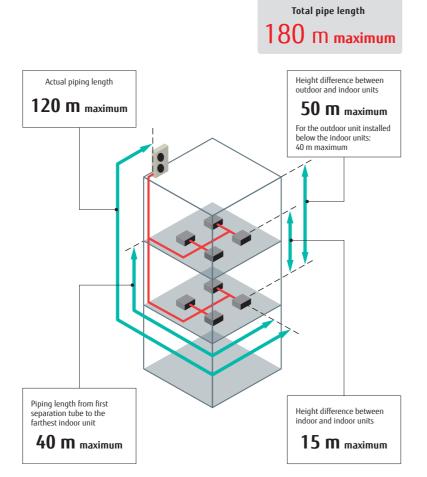


**OGENEROL** 47

### Long piping capability

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



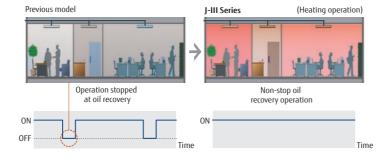


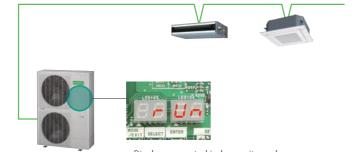
### Non-stop oil recovery operation

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

### **Easier Installation**

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





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

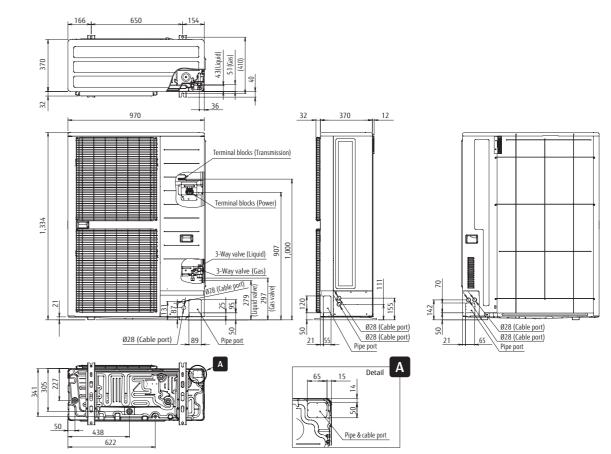
### Specifications

Rating Capacity range						4									
Rating Capacity rai	nge	Btu/h	36,000	45,000	54,000	36,000	45,000	54,000							
Model name       Connectable indoor units       Power source       Capacity     Cooling (T1 / T Heating       Input power (Outdoor unit)     Cooling (T1 / T Heating		Ton	3.0	3.8	4.5	3.0	3.8	4.5							
Model name			AJH040LBTBHN	AJH045LBTBHN	AJH054LBTBHN	AJH040LETBHN	AJH045LETBHN	AJH054LETBHN							
Connectable indoo	r units	Number	1 to 7	1 to 8	1 to 9	1 to 7	1 to 8	1 to 9							
D			1	Phase, 220 to 240 V, 50	Hz	3 Phase, 380 to 415 V, 50 Hz									
Power source				1 Phase, 230 V, 60 Hz			3 Phase, 400 V, 60 Hz								
Capacity         Heating           Input power         Cooling (T1 / (Outdoor unit)         Heating           Current         Cooling (T1 / Cooling (T1 /		kW	12.1 / 10.3	14.0 / 11.1	15.5 / 11.5	12.1 / 10.3	14.0 / 11.1	15.5 / 11.5							
capacity	Heating	KW	13.6	16.0	18.0	13.6	16.0	18.0							
Input power	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							
(Outdoor unit)	Heating	KVV	2.80	3.55	4.26	2.71	3.40	4.08							
	Cooling (T1 / T3)	А	12.7 / 15.2	15.7 / 16.6	18.4 / 17.2	5.2/6.2	6.6 / 6.6	7.7 / 6.9							
			12.3	15.6	18.7	5.0	6.5	7.8							
EER (System) Cooling (T1/1 CSPF (System)		W/W	4.03 / 2.88	3.81 / 2.87	3.61 / 2.85	4.18 / 3.03	3.93 / 3.02	3.78 / 3.01							
		Btu/hW	16.9	16.9	16.1	17	17	16.2							
		W/W	4.69	4.38	4.12	4.84	4.57	4.30							
Airflow 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		52	53	55	52	53	55							
Refrigerant	Туре		R410A	R410A	R410A	R410A	R410A	R410A							
	Height		1,334	1,334	1,334	1,334	1,334	1,334							
Net Dimensions	Width	mm	970	970	970	970	970	970							
Airflow rate High Sound pressure Cooling level Heating Refrigerant T Net Dimensions Width Depth			370	370	370	370	370	370							
Net Weight		kg	120	120	120	120	120	120							
Connection pipe	Liquid		9.52	9.52	9.52	9.52	9.52	9.52							
diameter	Gas	mm	15.88	15.88	19.05	15.88	15.88	19.05							
Operation	Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52							
temperature range	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21							

Note: Specifications are based on the following conditions. Cooling(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: 7.5 m. Height difference between outdoor and indoor unit: 0 m. \*1: Refer to the section Chapter 6 "4-2. Power supply cable wiring" when selecting the circuit breaker.

### Dimensions

Models: AJH040LBTBHN / AJH045LBTBHN / AJH054LBTBHN / AJH040LETBHN / AJH045LETBHN / AJH054LETBHN



### J-III Tropical Series Tropical Series

(Unit : mm)

## HEAT PUMP TYPE VRF V- Tropical Series

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

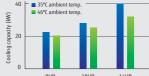
### System Outline

High ambient operation design Possible to operate cooling up to 52°C outdoor temperature

Powerful cooling capacity design Keeping high cooling power at even high ambient temperature

Anti-corrosion treatment design All metallic and PCB components are protected against corrosion





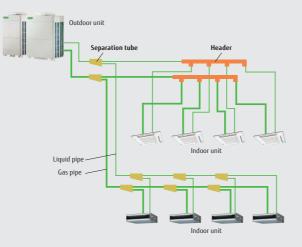




### System configuration example

• This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a highcapacity system.

• Connection of multiple indoor units using separation tubes and headers.



### **Features**

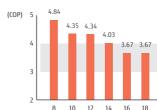
### Energy efficiency Top class high COP is realized for

all combinations by our unique

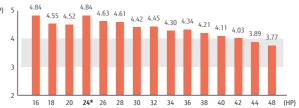
heat exchanger structure, high

efficient DC twin compressor, and other our own technologies.

### Space saving combination







### Energy saving technology that boosted operation efficiency



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

## 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



11

### 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

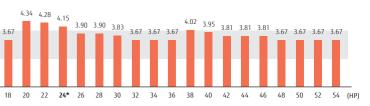
This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.

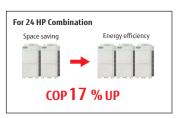


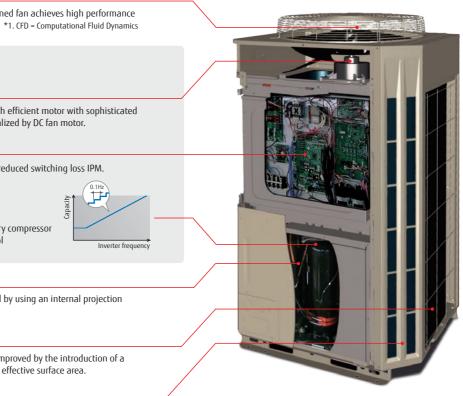


High efficient operation

Inefficient o

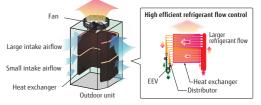






### Heat exchanger refrigerant control

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.

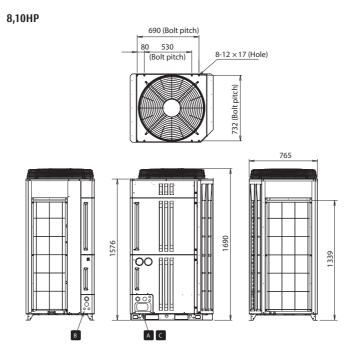
### 8,10HP :AJ\*072LN\*\*H\* / AJ\*090LN\*\*H\* 12,14,16,18HP: AJ\*108LN\*\*H\*/AJ\*126LN\*\*H\*/AJ\*144LN\*\*H\*/AJ\*162LN\*\*H\*

AJ\*\_LN\*\*H\*: AJH\_LNTCH-U, AJG\_LNLBH

### Space saving combinations

72,000Btu/h (8HP)	90,000Btu/h (10HP)	108,000Btu/h (12HP)	126,000Btu/h (14HP)	144,000Btu/h (16HP)	162,000Btu/h (18HP)*
AJ*072LN**H* UNIT: AJ*072LN**H*	AJ*090LN**H* UNIT:AJ*090LN**H*	AJ*108LN**H* UNIT:AJ*108LN**H*	AJ*126LN**H* UNIT:AJ*126LN**H*	AJ*144LN**H* UNIT:AJ*144LN**H*	AJ*162LN**H* UNIT: AJ*162LN**H*
180,000Btu/h (20HP)	198,000Btu/h (22HP)	216,000Btu/h (24HP)	234,000Btu/h (26HP)	252,000Btu/h (28HP)*	252,000Btu/h (28HP)
AJ*180LN**H* UNIT: AJ*090/090LN**H*	AJ*198LN**H* UNIT: AJ*126/072LN**H*	AJ*216LN**H* UNIT: AJ*126/090LN**H*	AJ*234LN**H* UNIT: AJ*144/090LN**H*	AJ*252LN**H* UNIT : AJ*162/090LN**H*	AJ*252LN**H*
270,000Btu/h (30HP)	288,000Btu/h (32HP)	306,000Btu/h (34HP)*	306,000Btu/h (34HP)	324,000Btu/h (36HP)*	324,000Btu/h (36HP)
AJ*270LN**H* UNIT:AJ*144/126LN**H*	AJ*288LN**H* UNIT:AJ*144/144LN**H*	AJ*306LN**H* UNIT:AJ*162/144LN**H*	AJ*306LN**H* UNIT:AJ*126/090/090LN**H*	AJ*324LN**H* UNIT:AJ*162/162LN**H*	AJ*324LN**H* UNIT:AJ*144/090/090LN**H*
342,000Btu/h (38HP)*	342,000Btu/h (38HP)	360,000Btu/h (40HP)	378,000Btu/h (42HP)	396,000Btu/h (44HP)*	414,000Btu/h (46HP)*
AJ*342LN**H* JNIT : AJ*162/090/090LN**H*	AJ*342LN**H* UNIT : AJ*126/126/090LN**H*	AJ*360LN**H* UNIT : AJ*144/126/090LN**H*	AJ*378LN**H* UNIT : AJ*144/144/090LN**H*	AJ*396LN**H* UNIT:AJ*162/144/090LN**H*	AJ*414LN**H* UNIT : AJ*162/162/090LN**H*
432,000Btu/h (48HP)	450,000Btu/h (50HP)*	468,000Btu/h (52HP)*	486,000Btu/h (54HP)*		
AJ*432LN**H* JNIT : AJ*144/144/144LN**H*	AJ*450LN**H* UNIT:AJ*162/144/144LN**H*	AJ*468LN**H* UNIT:AJ*162/162/144LN**H*	AJ*486LN**H* UNIT: AJ*162/162/162LN**H*		

### Dimensions

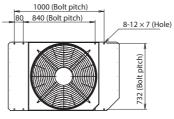


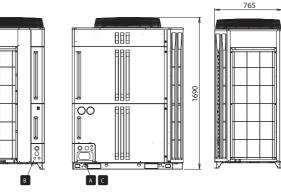
AJ\*\_LN\*\*H\*: AJH\_LNICH-U, AJG\_LN

### **Energy efficiency combinations**



12,14,16,18HP



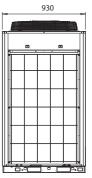


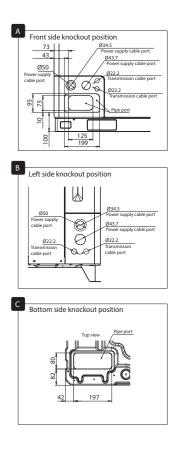
52 **OGENERAL** 





(Unit : mm)







### Space Saving Combinations

Indicision         Fill Dial         D																															
Image: Normal and the state of the			HP	8	10	12	14	16	18*	20	22	24	26	28*	28	30	32	34*	34	36*	36	38*	38	40	42	44*	46*	48	50*	52*	54*
Image: Note of the state         Image:	apacity		Btu/hr	72,000	90,000	108,000	126,000	144,000	162,000	180,000	198,000	216,000	234,000	252,000	252,000	270,000	288,000	306,000	306,000	324,000	324,000	342,000	342,000	360,000	378,000	396,000	414,000	432,000	450,000	468,000	486,000
Image: state         Partial         Partinit         Partial         Partial			Ton	6	7.5	9	10.5	12	13.5	15	16.5	18	19.5	21	21	22.5	24	25.5	25.5	27	27	28.5	28.5	30	31.5	33	34.5	36	37.5	39	40.5
Lin 2         Lin 3         Lin 4         Lin 4 <th< td=""><td colspan="2">Model name</td><td></td><td>AJ*072LN**H*</td><td>AJ*090LN**H*</td><td>AJ*108LN**H*</td><td>AJ*126LN**H*</td><td>AJ*144LN**H*</td><td>AJ*162LN**H*</td><td>AJ*180LN**H*</td><td>AJ*198LN**H*</td><td>AJ*216LN**H*</td><td>AJ*234LN**H*</td><td>AJ*252LN**H*</td><td>AJ*252LN**H*</td><td>AJ*270LN**H*</td><td>AJ*288LN**H*</td><td>* AJ*306LN**H*</td><td>AJ*306LN**H*</td><td>AJ*324LN**H*</td><td>AJ*324LN**H*</td><td>AJ*342LN**H*</td><td>AJ*342LN**H*</td><td>AJ*360LN**H*</td><td>AJ*378LN**H*</td><td>AJ*396LN**H*</td><td>AJ*414LN**H*</td><td>AJ*432LN**H*</td><td>AJ*450LN**H*</td><td>AJ*468LN**H*</td><td>AJ*486LN**H*</td></th<>	Model name			AJ*072LN**H*	AJ*090LN**H*	AJ*108LN**H*	AJ*126LN**H*	AJ*144LN**H*	AJ*162LN**H*	AJ*180LN**H*	AJ*198LN**H*	AJ*216LN**H*	AJ*234LN**H*	AJ*252LN**H*	AJ*252LN**H*	AJ*270LN**H*	AJ*288LN**H*	* AJ*306LN**H*	AJ*306LN**H*	AJ*324LN**H*	AJ*324LN**H*	AJ*342LN**H*	AJ*342LN**H*	AJ*360LN**H*	AJ*378LN**H*	AJ*396LN**H*	AJ*414LN**H*	AJ*432LN**H*	AJ*450LN**H*	AJ*468LN**H*	AJ*486LN**H*
Und         Line				AI*072LN**H*	A]*090LN**H*	AJ*108LN**H*	AJ*126LN**H*	AJ*144LN**H*	AJ*162LN**H*	AJ*090LN**H*	AI*126LN**H*	AI*126LN**H*	A *144LN**H*	AI*162LN**H*	AI*126LN**H*	A *144LN**H*	AI*144LN**H*	AI*162LN**H*	AJ*126LN**H*	AJ*162LN**H*	AJ*144LN**H*	AJ*162LN**H*	AI*126LN**H*	AJ*144LN**H*	A *144LN**H*	AJ*162LN**H*	AJ*162LN**H*	A]*144LN**H*	AJ*162LN**H*	AJ*162LN**H*	AJ*162LN**H*
manunamenantes         image				-				-		AJ*090LN**H*	AJ*072LN**H*	AJ*090LN**H*	AJ*090LN**H*	AJ*090LN**H*	AJ*126LN**H*	AJ*126LN**H*	AJ*144LN**H*	AJ*144LN**H*		AJ*162LN**H*								AJ*144LN**H*	AJ*144LN**H*		
index noncent enter length         in         10.29         16.49         20.492         20.592         30.2912         30.2912         30.2912         30.2912         60.4912         60.2912																			AJ*090LN**H*		AJ*090LN**H*	AJ*144LN**H*	AJ*144LN**H*	AJ*144LN**H*	AJ*162LN**H*						
Persone         Persone <t< td=""><td>Connectable Indoor I</td><td>r Unit</td><td></td><td>13</td><td>16</td><td>19</td><td>23</td><td>26</td><td>29</td><td>33</td><td>36</td><td>40</td><td>43</td><td>46</td><td>47</td><td>50</td><td>53</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td><td>55</td></t<>	Connectable Indoor I	r Unit		13	16	19	23	26	29	33	36	40	43	46	47	50	53	55	55	55	55	55	55	55	55	55	55	55	55	55	55
Long(II)         Hu         2.24         2.8         2.35         4.0         4.5         5.0         6.0         5.0     5.0         5.0 </td <td>t connectable capacit</td> <td>city</td> <td>kW</td> <td>11.2-29.1</td> <td>14-36.4</td> <td>16.8-43.5</td> <td>20.0-52.0</td> <td>22.5-58.5</td> <td>25.0-65.0</td> <td>28.0-72.8</td> <td>31.2-81.1</td> <td>34.0-88.4</td> <td>36.5-94.9</td> <td>39.0-101.4</td> <td>40.0-104.0</td> <td>42.5-110.5</td> <td>45.0-117.0</td> <td>47.5-123.5</td> <td>48.0-124.8</td> <td>50.0-130.0</td> <td>50.5-131.3</td> <td>53.0-137.8</td> <td>54.0-140.4</td> <td>56.5-146.9</td> <td>59.0-153.4</td> <td>61.5-159.9</td> <td>64.0-166.4</td> <td>67.5-175.5</td> <td>70.0-182.0</td> <td>72.5-188.5</td> <td>75.0-195.0</td>	t connectable capacit	city	kW	11.2-29.1	14-36.4	16.8-43.5	20.0-52.0	22.5-58.5	25.0-65.0	28.0-72.8	31.2-81.1	34.0-88.4	36.5-94.9	39.0-101.4	40.0-104.0	42.5-110.5	45.0-117.0	47.5-123.5	48.0-124.8	50.0-130.0	50.5-131.3	53.0-137.8	54.0-140.4	56.5-146.9	59.0-153.4	61.5-159.9	64.0-166.4	67.5-175.5	70.0-182.0	72.5-188.5	75.0-195.0
Image: Figure	Irce								3 phase 4 wir	re. 400 V. 50Hz													3 phase 4 wire	e, 400 V. 50Hz							
Holing         Holing<			kW	22.4	28	33.5	40	45	50			68	73	78	80	85	90	95	96	100	101	106			118	123	128	135	140	145	150
Calcing         Outone         Series		Cooling(T1)	Btu/h		95500	114300	136500	153500	170600	191000	212900	232000	249000	266100	273000	290000	307000	324100	327500	341200	344500	361600	368500	385500	402500	419600	436700	460500	477600	494700	511800
Channel         Omm	F	( (T2)	kW	20.2	25.2	28.5	32	35.1	35.2	50.4	52.2	57.2	60.3	60.4	64.0	67.1	70.2	70.3	82.4	70.4	85.5	85.6	89.2	92.3	95.4	95.5	95.6	105.3	105.4	105.5	105.6
her         lev         2.4         2.0         3.0         4.00         4.00         5.0         6.00         6.00         9.00<		Cooling(T3)	Btu/h				109200	119800	120100	172000	178100		205800	206100	218400	229000		239900	281200	240200	291800			315000	325600		326200	359400	359700	360000	360300
Imply proves         Buls         Pi-bol         95:00         11:00         95:00         11:00         21:00        21:00         21:00			kW	22.4	28.0	33.5	40.0	40.0	40.0	56.0	62.4	68.0	68.0	68.0	80.0	80.0	80.0	80.0	96.0	80.0	96.0	96.0	108.0	108.0	108.0	108.0	108.0	120.0	120.0	120.0	120.0
Image         Image         V         Am         Columnability         Columnability </td <td></td> <td>Heating</td> <td>Btu/h</td> <td>76400</td> <td>95500</td> <td>114300</td> <td>136500</td> <td>136500</td> <td>136500</td> <td>191000</td> <td>212900</td> <td>232000</td> <td>232000</td> <td>232000</td> <td>273000</td> <td>273000</td> <td>273000</td> <td>273000</td> <td>327500</td> <td>273000</td> <td>327500</td> <td>327500</td> <td>368500</td> <td>368500</td> <td>368500</td> <td>368500</td> <td>368500</td> <td>409500</td> <td>409500</td> <td>409500</td> <td>409500</td>		Heating	Btu/h	76400	95500	114300	136500	136500	136500	191000	212900	232000	232000	232000	273000	273000	273000	273000	327500	273000	327500	327500	368500	368500	368500	368500	368500	409500	409500	409500	409500
Indicision (noticision)         Indicision (no	er	Cooling(T3)*1	1.147	6.74	8.87	9.44	10.84	12.01	11.86	17.74	17.58	19.71	20.88	20.73	21.68	22.85	24.02	23.87	28.58	23.72	29.75	29.6	30.55	31.72	32.89	32.74	32.59	36.03	35.88	35.73	35.58
Image         Image <th< td=""><td></td><td>Heating</td><td>KW</td><td>4.86</td><td>6.46</td><td>7.27</td><td>9.21</td><td>9.41</td><td>9.22</td><td>12.92</td><td>14.07</td><td>15.67</td><td>15.87</td><td>15.68</td><td>18.42</td><td>18.62</td><td>18.82</td><td>18.63</td><td>22.13</td><td>18.44</td><td>22.33</td><td>22.14</td><td>24.88</td><td>25.08</td><td>25.28</td><td>25.09</td><td>24.9</td><td>28.23</td><td>28.04</td><td>27.85</td><td>27.66</td></th<>		Heating	KW	4.86	6.46	7.27	9.21	9.41	9.22	12.92	14.07	15.67	15.87	15.68	18.42	18.62	18.82	18.63	22.13	18.44	22.33	22.14	24.88	25.08	25.28	25.09	24.9	28.23	28.04	27.85	27.66
power fact (ubdoor duit)         U         0.9		Cooling(T3)*1		11.2	14.2	15.1	17.2	19.0	18.6	28.4	28.4	31.4	33.2	32.8	34.4	36.2	38.0	37.6	45.6	37.2	47.4	47.0	48.6	50.4	52.2	51.8	51.4	57.0	56.6	56.2	55.8
ER Quadruntiny         Quadruntiny         WW         4.31         3.85         3.88         3.86         3.02         3.86         3.12         3.76         3.26         3.34 </td <td>Jnit)</td> <td>Heating</td> <td>A</td> <td>8.2</td> <td>10.6</td> <td>12.1</td> <td>14.6</td> <td>15.1</td> <td>14.8</td> <td>21.2</td> <td>22.8</td> <td>25.2</td> <td>25.7</td> <td>25.4</td> <td>29.2</td> <td>29.7</td> <td>30.2</td> <td>29.9</td> <td>35.8</td> <td>29.6</td> <td>36.3</td> <td>36.0</td> <td>39.8</td> <td>40.3</td> <td>40.8</td> <td>40.5</td> <td>40.2</td> <td>45.3</td> <td>45.0</td> <td>44.7</td> <td>44.4</td>	Jnit)	Heating	A	8.2	10.6	12.1	14.6	15.1	14.8	21.2	22.8	25.2	25.7	25.4	29.2	29.7	30.2	29.9	35.8	29.6	36.3	36.0	39.8	40.3	40.8	40.5	40.2	45.3	45.0	44.7	44.4
Left (symm)         WW         2.91         2.76         2.92         2.86         2.83         2.81         2.80         2.81         2.80         2.83         2.84         2.80         2.86         2.92         2.80         2.81         2.80         2.81         2.80         2.81         2.80         2.81         2.80         2.81	or (Outdoor unit)			0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
LER (system)         Ooding (sym)         Buth         9.90         9.40         9.40         9.40         9.60<	oor Unit)	Cooling(T1)*2	W/W	4.31	3.85	3.8	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.65	3.55	3.46	3.21	3.76	3.02	3.66	3.41	3.70	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
Image: bit in the length in the le		Cooling/T2)*1	W/W	2.91	2.76	2.92	2.86	2.83	2.86	2.76	2.88	2.81	2.80	2.82	2.86	2.84	2.83	2.84	2.80	2.86	2.79	2.80	2.83	2.82	2.81	2.82	2.83	2.83	2.84	2.85	2.86
CDP (System)         Heating         Buth         15.05         14.20         14.05         14.20         14.05         14.20         14.05         14.00         14.05         14.00         14.00         14.00         14.00         14.00         14.00         14.00         14.05         14.00		cooning(13)	Btu/h	9.90	9.40	9.95	9.70	9.60	9.70	9.40	9.80	9.60	9.50	9.60	9.70	9.65	9.60	9.65	9.50	9.70	9.50	9.55	9.65	9.60	9.55	9.60	9.65	9.60	9.65	9.70	9.70
Image: brance of the line line of the line	(mo	Hosting	W/W	4.42	4.17	4.42	4.18	4.07	4.13	4.17	4.26	4.17	4.11	4.15	4.18	4.13	4.07	4.10	4.17	4.13	4.13	4.15	4.18	4.14	4.10	4.12	4.14	4.07	4.09	4.11	4.13
Air flow rate       m <sup>2</sup> /h       11,00       11,00       13,000       13,000       13,000       13,000       22,200       24,100       24,800       26,000       26,000       26,000       26,000       27,400       35,200       27,400       35,900       37,100       37,800       38,500       38,500       38,500       38,500       41,10         Sound pressure low       Colling Heating       66       58       57       60       63       61       61       62       64       64       65       65       65       64       66       65       65       66      66 <td>,</td> <td>neating</td> <td>Btu/h</td> <td>15.05</td> <td>14.20</td> <td>15.05</td> <td>14.25</td> <td>13.85</td> <td>14.05</td> <td>14.20</td> <td>14.50</td> <td>14.20</td> <td>14.00</td> <td>14.10</td> <td>14.25</td> <td>14.05</td> <td>13.85</td> <td>13.95</td> <td>14.20</td> <td>14.05</td> <td>14.05</td> <td>14.15</td> <td>14.20</td> <td>14.10</td> <td>13.95</td> <td>14.05</td> <td>14.10</td> <td>13.85</td> <td>13.95</td> <td>14.00</td> <td>14.05</td>	,	neating	Btu/h	15.05	14.20	15.05	14.25	13.85	14.05	14.20	14.50	14.20	14.00	14.10	14.25	14.05	13.85	13.95	14.20	14.05	14.05	14.15	14.20	14.10	13.95	14.05	14.10	13.85	13.95	14.00	14.05
Sound pressure level $\frac{1}{100}$ $\frac{6}{6}$ $\frac{5}{6}$ $\frac{6}{6}$ <td></td> <td></td> <td>Btu/hW</td> <td>21.0</td> <td>21.5</td> <td>21.0</td> <td>19.5</td> <td>19.1</td> <td>17.7</td> <td>-</td>			Btu/hW	21.0	21.5	21.0	19.5	19.1	17.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sound pressure level         Heating         dB(A)         58         59         60         62         64         64         62         63         64         65         65         65         66         67         66         66         66         67         68         66         66         67         68         66        66         66 <th< td=""><td>te</td><td></td><td>m³/h</td><td>11,100</td><td>11,100</td><td>13,000</td><td>13,000</td><td>13,700</td><td>13,700</td><td>22,200</td><td>24,100</td><td>24,100</td><td>24,800</td><td>24,800</td><td>26,000</td><td>26,700</td><td>27,400</td><td>27,400</td><td>35,200</td><td>27,400</td><td>35,900</td><td>35,900</td><td>37,100</td><td>37,800</td><td>38,500</td><td>38,500</td><td>38,500</td><td>41,100</td><td>41,100</td><td>41,100</td><td>41,100</td></th<>	te		m³/h	11,100	11,100	13,000	13,000	13,700	13,700	22,200	24,100	24,100	24,800	24,800	26,000	26,700	27,400	27,400	35,200	27,400	35,900	35,900	37,100	37,800	38,500	38,500	38,500	41,100	41,100	41,100	41,100
Indexity		Cooling	$dB(\Delta)$			57	60	63	63	61	61	62	64	64	63		66	66	64	66	65	65	64		67	67	67	68	68	68	68
Compressor motor output         kW         7.5         7.5         11         11         7.5×2         7.5×2         7.5×2         7.5×2         7.5×2         7.5×3		Heating	00(/1)				-	÷.				-					07												69	69	69
Heatexchangerfin         Blue fin	catic pressure (Max)	)				-	-			-		-	-								-		-			-			82	82	82
Height         1,690 <t< td=""><td>or motor output</td><td></td><td>kW</td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.5 × 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.5 × 3</td><td>7.5 × 3</td><td></td><td>7.5 × 3</td><td>7.5 × 3</td><td>7.5 × 3</td><td>7.5 × 3</td></t<>	or motor output		kW							7.5 × 2															7.5 × 3	7.5 × 3		7.5 × 3	7.5 × 3	7.5 × 3	7.5 × 3
	anger fin																			Blue fin		Blue fin						Blue fin	Blue fin	Blue fin	Blue fin
	F		ļ	1	1	1	1	1	1	1	1	1	1	1			1	1	1		1		1	1					1,690	1,690	1,690
	IS		mm			1 2													1 1 1 1	1240 × 2		21240 + 930 × 2						1240 × 3	1240 × 3	1240 × 3	1240 × 3
		Depth																										765	765	765	765
			kg			-	-	-									-	-		-								279 × 3	279 × 3	279 × 3	279 × 3
	. –	.76.0		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant Factory charged amount and the second s	c F		kg	11.7	11.7	11.8	11.8	11.8	11.8	11.7 x 2	11.8 + 11.7	11.8 + 11.7	11.8 + 11.7	11.8 + 11.7	11.8 × 2	11.8 × 2	11.8 × 2	11.8 × 2	11.8 + 11.7 × 2	11.8 × 2	11.8 + 11.7 × 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 × 2 + 11.7	11.8 × 3	11.8 × 3	11.8 × 3	11.8 × 3
Liquid L_ Liquid L_ 12.70 12.70 12.70 12.70 12.70 12.70 12.70 12.70 12.70 12.70 12.70 12.70 15.88 15.88 15.88 15.88 15.88 15.88 15.88 15.88 19.05 19.0	i diamatas	Liquid		12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
Connection pipe diameter Gas mm 22.22 22.22 28.58 28.58 28.58 28.58 28.58 28.58 28.58 34.92 34.92 34.92 34.92 34.92 34.92 34.92 34.92 34.92 41.27 41.2	a pipe diameter	Gas	mm	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Cooling 1 - 15 to 52 -		Cooling	*CDD	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52					
Operating range         Heating         'COB         -20 to 21         -20 to 21 <th< td=""><td>range</td><td>Heating</td><td>CDB</td><td>-20 to 21</td><td>-20 to 21</td></th<>	range	Heating	CDB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21					

### **Energy Efficiency Combinations**

		HP	16	18	20	24	26	28	30	32	34	36*	38	40	42	44*	46*
Nominal Capacity		Btu/hr	144,000	162,000	180,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000
		Ton	12	13.5	15	18	19.5	21	22.5	24	25.5	27	28.5	30	31.5	33	34.5
Model name			AJ*144LN**H*	AJ*162LN**H*	AJ*180LN**H*	AJ*216LN**H*	AJ*234LN**H*	AJ*252LN**H*	AJ*270LN**H*	AJ*288LN**H*	AJ*306LN**H*	AJ*324LN**H*	AJ*342LN**H*	AJ*360LN**H*	AJ*378LN**H*	AJ*396LN**H*	AJ*414LN**H*
Unit 1			AI*072LN**H*	AI*090LN**H*	AI*108LN**H*	AI*072LN**H*	AI*090LN**H*	AI*108LN**H*	AI*126LN**H*	AI*108LN**H*	AJ*126LN**H*	AI*108LN**H*	AJ*126LN**H*	AI*126LN**H*	AI*126LN**H*	AI*144LN**H*	AI*144LN**H*
Unit 2			AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*108LN**H*	AJ*108LN**H*	AJ*108LN**H*	AJ*108LN**H*	AJ*126LN**H*	AJ*126LN**H*	AJ*126LN**H*	AJ*144LN**H*
Unit 3						AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*072LN**H*	AJ*108LN**H*	AJ*108LN**H*	AJ*108LN**H*	AJ*126LN**H*	AJ*126LN**H*	AJ*126LN**H*
Maximum Connectable Indo			26	29	33	39	43	46	50	52	55	55	55	55	55	55	55
Indoor unit connectable cap	acity	kW	22.4-58.2	25.2-65.5	28.0-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2	48.0-124.7	50.3-130.6	53.5-139.1	56.8-147.5	60.0-156.0	62.5-162.5	65.0-169.0
Power source						3 phase 4 wir	e, 400 V, 50Hz						3	phase 4 wire, 400 V, 50	)Hz		
	Cooling(T1)	kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107	113.5	120	125	130
	cooling(11)	Btu/h	152800	171900	190700	229200	248300	267100	289300	305000	327200	342900	365100	387300	409500	426500	443500
Capacity	Cooling(T3)	kW	40.4	45.4	48.7	60.6	65.6	68.9	72.4	77.2	80.7	85.5	89	92.5	96	99.1	102.2
copocity		Btu/h	137800	154900	166100	206700	223800	235000	247000	263300	275300	291600	303600	315600	327600	338200	348800
	Heating	kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	120.0	120.0
		Btu/h	152800	171900	190700	229200	248300	267100	289300	305000	327200	342900	365100	387300	409500	409500	409500
Input power	Cooling(T3)*1	kW	13.48	15.61	16.18	20.22	22.35	22.92	24.32	25.62	27.02	28.32	29.72	31.12	32.52	33.69	34.86
(Outdoor unit)	Heating		9.72	11.32	12.13	14.58	16.18	16.99	18.93	19.4	21.34	21.81	23.75	25.69	27.63	27.83	28.03
Current (Outdoor Unit)	Cooling(T3)*1	A	22.4	25.4	26.3	33.6 24.6	36.6	37.5	39.6 31	41.4	43.5	45.3	47.4	49.5 41.3	51.6 43.8	53.4	55.2
Power factor (Outdoor unit)	Heating		0.9	0.9	20.3	0.9	0.9	28.5	0.9	0.9	0.9	36.3	38.8	41.3	43.8	0.9	0.9
EER (Outdoor Unit)	Cooling(T1)*2	W/W	4.31	4.04	3.99	4.31	4.12	4.07	3.97	3.91	3.84	3.80	3.74	3.69	3.65	3.58	3.52
EER (Outdoor offic)		W/W	2.91	2.82	2.92	2.91	2.85	2.91	2.88	2.92	2.89	2.92	2.90	2.88	2.86	2.85	2.84
EER (System)	Cooling(T3)*1	Btu/h	9.90	9.60	9.95	9.90	9.70	9.90	9.80	9.95	9.85	9.95	9.85	9.80	9.75	9.70	9.65
		W/W	4.42	4.27	4.42	4.42	4.32	4.42	4.30	4.42	4.32	4.42	4.33	4.25	4.18	4.14	4.11
COP (System)	Heating	Btu/h	15.05	14.55	15.05	15.05	14.70	15.05	14.65	15.05	14.70	15.05	14.75	14.50	14.25	14.10	14.00
CSPF*1	1	Btu/hW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate		m³/h	22,200	22,200	24,100	33,300	33,300	35,200	35200	37100	37100	39000	39000	39000	39000	39700	40400
Constant state	Cooling	dB(A)	59	60	60	61	62	61	63	61	63	62	63	64	65	66	67
Sound pressure level	Heating	1 0B(A)	61	62	62	63	63	64	65	64	65	65	66	66	67	68	68
External static pressure (Ma	x)	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	7.5 x 2	7.5 x 2	7.5 x 2	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3	7.5 x 3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
	Height		1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
Dimensions	Width	mm	930 × 2	930 × 2	1240 + 930	930 × 3	930 × 3	1240 + 930 × 2	1240 + 930 × 2	1240 × 2 + 930	1240 × 2 + 930	1240 × 3	1240 × 3	1240 × 3	1240 × 3	1240 × 3	1240 × 3
	Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	255 × 2	255 × 2	279 + 255	255 × 3	255 × 3	279 + 255 × 2	279 + 255 × 2	279 × 2 + 255	279 × 2 + 255	279 × 3	279 × 3	279 × 3	279 × 3	279 × 3	279 × 3
Refrigerant	Type Factory charged	ka	R410A	R410A	R410A 11.8 + 11.7	R410A	R410A	R410A 11.8 + 11.7 × 2	R410A 11.8 + 11.7 × 2	R410A 11.8 × 2 + 11.7	R410A 11.8 × 2 + 11.7	R410A 11.8 × 3	R410A 11.8 × 3	R410A 11.8 × 3	R410A 11.8 × 3	R410A 11.8 × 3	R410A 11.8 × 3
	amount	ĸy	11.7 x 2	11.7 x 2	15.88	15.88	15.88	11.0 + 11.7 × 2	11.0 + 11.7 × 2	19.05	19.05	11.6 × 5	11.6 × 5	11.6 × 5	11.6 × 5	11.8 × 5	11.8 × 5
Connection pipe diameter	Gas	mm	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
	Cooling		-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
Operating range	Heating	*CDB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-3 to 32	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21
	пеациу	L	-20 t0 21	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-201021	-20 t0 21

## V-III Tropical Series

\*: Not available to sale in some regions

Note: Specifications are based on the following conditions. \*1: As per ESMA standard: UAE.S 5010-5:2019 \*2: As per AD QCC standard: QCC-PCS-ASP017.01

Space saving: AJ \*\_LN \* \*H \* : AJH\_LNTCH-U, AJG\_LNLBH High Efficiency: AJ \*\_LN \* \*H \* : AJH\_LNTCH-UH, AJG\_LNLBHH



# **VRF INDOOR UNITS**

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 Floor / Ceiling Ceiling Wall Mounted (EEV Internal / external)



### 13 Type and 95 models available to meet the requirements of any building design.

VRF 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**

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs. 13types, 89models, Capacity range from 7,000 Btu/h to 96,000 Btu/h

### Indoor units range

(it		Btu/h	7,000	9,000	12,000	14,000	18,000	24,000	30,000	34,000	36,000	45,000	
Capacity range		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	10.0	11.2	12.5	
	Compact Consolto			1	1	1							
	Compact Cassette		AUGB07GALH AUGB07GATH	AUGB09GALH AUGB09GATH	AUGB12GALH AUGB12GATH	AUGB14GALH AUGB14GATH	AUGB18GALH AUGB18GATH	AUGB24GALH AUGB24GATH					
		(Slim type)											T
		(Sinit type)					AUGD18GALH	AUGD24GALH					
Cassette	4-way Flow	(Large type)									-	-	
							AUGA18GALH	AUGA24GALH	AUGA30GALH		AUGA36GALH	AUGA45GALH	
		(Slim type)											
	Circular Flow						AUGM018GTAH	AUGM024GTAH					-
		(Large type)											
							AUGK018GTAH	AUGK024GTAH	AUGK030GTAH	AUGK034GTAH	AUGK036GTAH	AUGK045GTAH	
	Mini Duct (With drain pump)												
			ARGK07GCLH	ARGK09GCLH	ARGK12GCLH	ARGK14GCLH	ARGK18GCLH	ARGK24GCLH					+
	Mini Duct (Without drain pump)												
			ARGK07GALH	ARGK09GALH	ARGK12GALH	ARGK14GALH	ARGK18GALH	ARGK24GALH					$\vdash$
	Slim Duct (With drain pump)												
Duct			ARGD07GATH	ARGD09GATH	ARGD12GATH	ARGD14GATH	ARGD18GATH	ARGD24GATH					⊢
	Medium Static Pressure Duct							ARGA24GBTH	ARGA30GBTH		ARGA36GBTH	ARGA45GBTH	
								ARUAZ4UDIN	ARGAJUGBIH			ARUA450DTH	⊢
											ARGC36GBTH		
	High Static Pressure Duct												
												ARGC45GATH	
	Floor												Γ
Floor	(Same as Ceiling models)				ABGA12GATH	ABGA14GATH	ABGA18GATH	ABGA24GATH					
1001	Slim Concealed Floor (Same as Slim Duct models)												
			ARGD07GATH	ARGD09GATH	ARGD12GATH	ARGD14GATH	ARGD18GATH	ARGD24GATH					-
Ceiling	Ceiling										-		*
					ABGA12GATH	ABGA14GATH	ABGA18GATH	ABGA24GATH	ABGA30GATH		ABGA36GATH	ABGA45GATH	-
	Wall Mounted												
Wall Mounted			ASGA07GACH ASGA07GATH	ASGA09GACH ASGA09GATH	ASGA12GACH ASGA12GATH	ASGA14GACH ASGA14GATH	ASGA18GACH ASGA18GATH	ASGA24GACH ASGA24GATH	ASGA30GACH ASGA30GATH				
	Wall Mounted (EEV external)						With this model, connection of EV kit is necessary.						
			ASGE07GACH	ASGE09GACH	ASGE12GACH	ASGE14GACH							

\*1:ARGC60/72/90/96 cannot be connected to J-III tropical Series. \*2:Large Airflow Duct can be connected to V-III tropical Series only.

54,000	60,000	72,000	90,000	96,000
14.0	18.0	22.4	25.0	28.0
AUGA54GALH				
AUGK054GTAH				
		ARGC72GBTH*1	ARGC90GBTH*1	ARGC96GATH*1
	ARGC60GATH*1	ARGC72GATH*1	ARGC90GATH*1	
ABGA54GATH				





### 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.



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.

### Improvement of the airflow distribution



### 1. 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

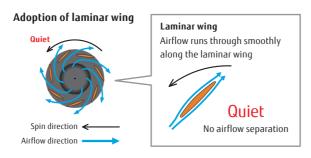
2. Air filter : standard equipment

### 3. Adaptation of transparent drainage parts

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

### Quiet quality

Optimization of wing form (laminar wing type) and wing number (7 blades each) Designed by CFD-analysis (fluid) simulations



### High ceiling mode

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

Model code	The maximum height from floor to ceiling (m)						
Model 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 24,000 Btu model in the compact cassette category (Easy installation by taking off ceiling panel of 600 x 600 size)



### Model: AUGB07GALH / AUGB09GALH / AUGB12GALH AUGB14GALH / AUGB18GALH / AUGB24GALH AUGB07GATH / AUGB09GATH / AUGB12GATH AUGB14GATH / AUGB18GATH / AUGB24GATH

### Specifications AUGB07GALH AUGB07GATH AUGB09GALH Power source 2.2 2.8 Cooling Capacity kW 3.2 2.8 Heating Input power 25 25 W 540 (150) 550 (153) High m3/h 450 (125) 450 (125) Airflow rate Med (1/s)Low 350 (97) 350 (97) High 34 35 Sound pressure level dB Med 30 30 (A) 25 25 Low Dimensions (H × W × D) mm 245 × 570 × 570 245 × 570 × 570 245 15 (33) Weight kg(lbs) 15 (33) Liquid (Flare) 6.35 6.35 Connection pipe diameter 12.70 12.70 Gas (Flare) mm Drain hose diameter (I.D./O.D.) Model name Cassette Grille Dimensions (H×W×D) mm Weight kg(lbs)

Note : Specifications are based on the following conditions.

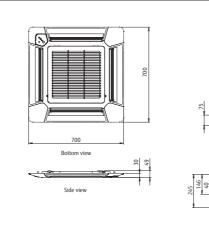
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

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

### **Optional parts**

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

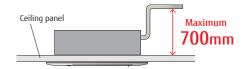
### Dimensions (Unit: mm)

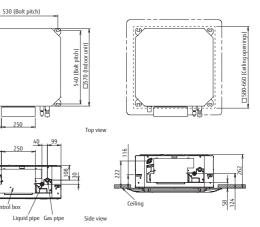


250



UGB12GALH UGB12GATH	AUGB14GALH AUGB14GATH	AUGB18GALH AUGB18GATH	AUGB24GALH AUGB24GATH					
Single phase, 220-240V, 50Hz								
3.6	4.5	5.6	7.1					
4.1	5.0	6.3	8.0					
29	35	36	84					
600 (167)	680 (189)	710 (197)	1,030 (286)					
530 (147)	590 (164)	580 (161)	830 (231)					
390 (108)	390 (108)	400 (111)	450 (125)					
37	38	41	50					
34	34	35	44					
27	27	27	30					
5 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570					
15 (33)	15 (33)	17 (37)	17 (37)					
6.35	6.35	9.52	9.52					
12.70	12.70	15.88	15.88					
25	/ 32							
UTG-U	UTG-UFGC-W							
50 × 70	0 × 700							
2.6 (6)								

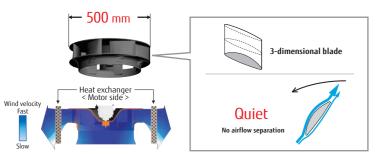






### High efficiency turbo fan with 3-dimensional blade

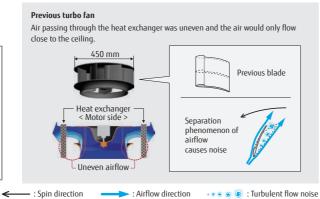
High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.



Detachable

Grille corner

Adjustment can be done just taking off the corner part

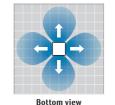


### Improvement of the airflow distribution

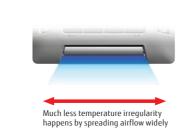
The louver design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.

Adjustment of hanger position is

possible after installation



## Front part Ceiling Rear part Round louver



### High ceiling mode

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

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					

### Model: AUXD18GALH / AUXD24GALH

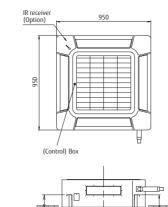
Model name			AUGD18GALH	AUGD24GALH			
ower source			Single phase, 220-240V, 50Hz				
Capacity	Cooling	kW	5.6	7.1			
арасну	Heating	KVV	6.3	8.0			
nput power		W	39	46			
Airflow rate	High		1,150 (319)	1,280 (356)			
	Med	m3/h (I/s)	940 (261)	1,040 (289)			
	Low	(")	870 (242)	870 (242)			
	High		36	38			
ound pressure evel	Med	dB (A)	30	33			
ever	Low	(//)	29	29			
Dimensions (H ×	W × D)	mm	246 × 840 × 840	246 × 840 × 840			
Veight		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-U	GGA-W			
assette Grille	Dimensions (H×W×D)	mm	50 × 95	50 × 950			
	Weight	kg(lbs)	5.5	(12)			

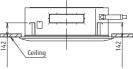
Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor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

### **Optional parts**

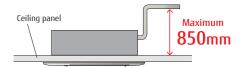
IR Receiver Unit :	UTY-LRHGB1
Air Outlet Shutter Plate :	UTR-YDZK
Panel Spacer :	UTG-BKXA-W
Insulation Kit for High Humidity :	UTZ-KXRA
UTG-AKXA-W	UTG-AKXA-W

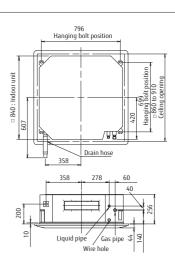
### Dimensions (Unit: mm)







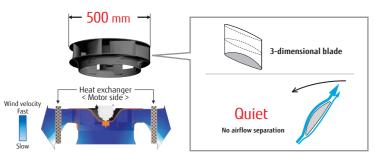






### High efficiency turbo fan with 3-dimensional blade

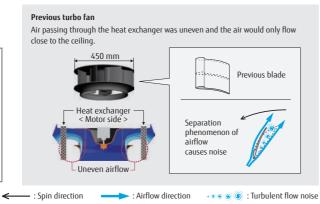
High efficiency airflow distribution has been achieved by the introduction of a 3 dimensional blade which increases the air passing over the heat exchanger.



Detachable

Grille corner

Adjustment can be done just taking off the corner part



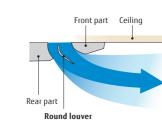
### Improvement of the airflow distribution

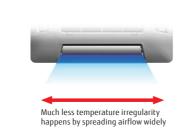
The louver design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.

Adjustment of hanger position is

possible after installation







### High ceiling mode

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

Model code	The maximum height from floor to ceiling (m)						
model code	Standard mode	High ceiling mode					
18	3.2	3.6					
24	3.2	3.6					
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					

### Model: AUGA18GALH / AUGA24GALH / AUGA30GALH AUGA36GALH / AUGA45GALH / AUGA54GALH

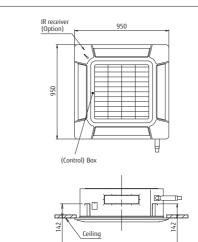
Model name			AUGA18GALH	AUGA24GALH	AUGA30GALH	AUGA36GALH	AUGA45GALH	AUGA54GALH		
Power source				Single phase, 220-240V, 50Hz						
Capacity	Cooling	kW	5.6	7.1	9.0	11.2	12.5	14.0		
Capacity	Heating	KVV	6.3	8.0	10.0	12.5	14.0	16.0		
Input power		W	51	51	59	80	99	119		
	High		1,420 (394)	1,420 (394)	1,600 (444)	1,800 (500)	1,900 (528)	2,000 (556)		
Airflow rate	Med	m3/h (I/s)	1,230 (342)	1,230 (342)	1,300 (361)	1,300 (361)	1,370 (381)	1,370 (381)		
	Low	(113)	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)		
	High		40	40	40	44	46	47		
Sound pressure level	Med	dB (A)	36	36	38	38	39	39		
ievei	Low	(//)	33/31* <sup>1</sup>	33/31* <sup>1</sup>	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		
Weight		kg(lbs)	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		
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	19.05	19.05	19.05		
Drain hose diameter (I.D./O.D.)			25/32							
	Model na	me			UTG-U	GGA-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].

### **Optional parts**

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

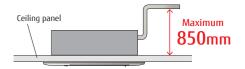
### Dimensions (Unit: mm)

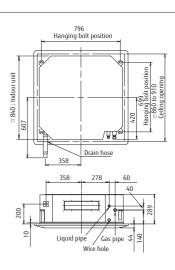


64 **OGENERAL** 



\*1: This value is under cooling operation.







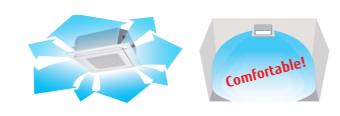
### Unique Circular Flow design

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.

Ø7 mm high density heat exchanger New DC fan motor High efficient turbo fan Seamless airflow louver

### 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.

Occupancy sensor increases more energy saving

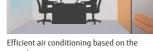
Energy saving operation starts automatically by detecting the motion of a person. 2 modes of save operation mode and stop mode can be

\* Touch Panel Wired RC (UTY-RNRGZ5) and Central Remote Controller(UTY-DCGGZ2) only

\* Touch Panel Wired RC (UTY-RNRGZ5) and Central Remote Controller(UTY-DCGGZ2) only



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



room layout

### 2 modes can be selected



Power is saved while people are away.

Operation stops after Auto OFF people go out.

Model: (Slim type) AUGM018GTAH / AUGM024GTAH

> (Large type) AUGK018GTAH / AUGK024GTAH / AUGK030GTAH AUGK034GTAH / AUGK036GTAH / AUGK045GTAH AUGK054GTAH



### Specifications

Model name			AUGM018 GTAH	AUGM024 GTAH	AUGK018 GTAH	AUGK024 GTAH	AUGK030 GTAH	AUGK034 GTAH	AUGK036 GTAH	AUGK045 GTAH	AUGK054 GTAH
Power source				Single phase, 220-240V, 50Hz							
Constitut	Cooling	kW	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0
Capacity	Heating	KW	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-High		930	1,050	1,360	1,360	1,440	1,440	1,500	1,590	1,800
Airflow rate	Med	m3/h	900	930	1,300	1,300	1,340	1,340	1,400	1,500	1,590
AITTIOW Fate	Med-Low	m3/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-High		32	33	37	37	38	38	40	42	45
Sound pressure	Med	dB (A)	31	32	36	36	37	37	38	40	42
level	Med-Low		30	31	35	35	36	36	37	38	39
	Low		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	288×840×84
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	me	UTG-UKGD-W/UTG-UKGA-B								
Cassette Grille	Dimensions (H×W×D)	mm	53×950×950								
	Weight	kg	6.0								

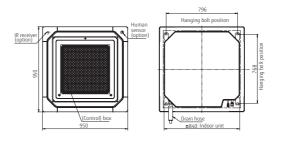
Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor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

### **Optional parts**

Human Sensor Kit:	UTY-SHZXC	Cassette Grille:	UTG-UKGD-W	Air Outlet Shut
Wide Panel:	UTG-AKXA-W		UTG-UKGA-B	Insulation Kit f
Panel Spacer:	UTG-BKXA-W	IR Receiver Unit:	UTY-LBHXD	

Dimensions (Unit: mm)

### Models: AUGM018 / AUGM024







Human sensor (Optional)

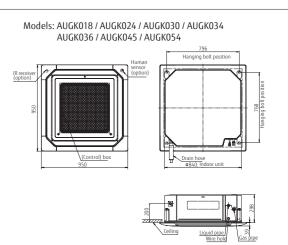
selected.

Large type AUGK018/024/030/034/03/045/054GTAH

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

should be Ø19.05.

utter Plate: UTR-YDZK for High Humidity: UTZ-KXRA



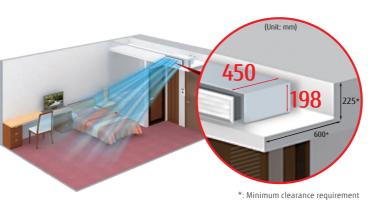
**Mini Duct** 





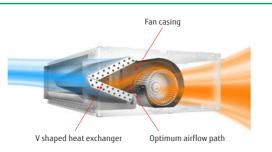
### Optimum design in harmony with interior decoration

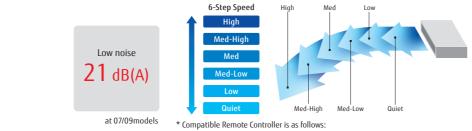
Thin and short-depth body makes the clipped ceiling design



### 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.





UTY-RNRGZ5 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ2 / UTY-ALGXZ1 / UTY-APGXZ1

### 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.

6-speed control\*

Multistep airflow speed control allows

this model to install in a quiet location.

### Models with drain pump or models with drain oump, drain design is easy even at narrow eilina.

### Models without drain pump



### Model: (With drain pump) ARGK07GCLH / ARGK09GCLH ARGK12GCLH / ARGK14GCLH ARGK18GCLH / ARGK24GCLH



(Without drain pump) ARGK07GALH / ARGK09GALH ARGK12GALH / ARGK14GALH ARGK18GALH / ARGK24GALH

ARGK07/09/12/14GCLH



ARGK07/09/12/14GALH

Specifications

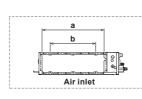
Model name			ARGK07GCLH ARGK07GALH	ARGK09GCLH ARGK09GALH	ARGK12GCLH ARGK12GALH	ARGK14GCLH ARGK14GALH	ARGK18GCLH ARGK18GALH	ARGK24GCLH ARGK24GALH
Power source			Single phase, 220-240V, 50Hz					
Casacilu	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
Capacity	Heating	KVV [	2.8	3.2	4.0	5.0	6.3	8.0
Input power	GCLH / 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-High	] [	440 (122)	440 (122)	520 (144)	660 (183)	840 (233)	1,060 (294)
Airflow rate	Med	m <sup>3</sup> /h	420 (117)	420 (117)	480 (133)	560 (156)	740 (206)	960 (267)
AITTIOW Tate	Med-Low	(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 range Pa		0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50	
Standard static pressure		Pa	10	10	10	15	15	15
	High		26	26	29	34	33	32
	Med-High	] [	25	25	27	31	30	30
Sound pressure	Med	dB	24	24	26	28	28	28
level	Med-Low	(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 × 45
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 diameter (I.D./O.D.)		25/32						

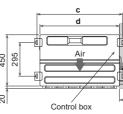
Note : Specifications are based on the following conditions. Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20° CDB / (15° CWB), and outdoor temperature of 7° CDB / 6° CWB. Pipe length : 7.5 m; Height difference between outdoor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

### **Optional parts**

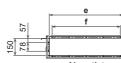
Auto louvre grille kit: UTD-GXTA-W (for ARGK07 - 14) UTD-GXTB-W (for ARGK18) UTD-GXTC-W (for ARGK24) Remote Sensor Unit : UTY-XSZX IR Receiver Unit : IUTB-YWC

### Dimensions (Unit: mm)









### 68 **GENEROL**

Air outle





ARGK24GCLH



ARGK18GALH

ARGK18GCLH



ARGK24GALH

### Auto Louver Grille Kit (Option)

- Thin design provides a comfortable living environment over a wide area.
- Automatic louver grille provides comfortable air conditioning all the way down to the floor and matches the interior design well. (Optional)





	ARGK07-14	ARGK18	ARGK24
а	575	775	975
b	P200×2=400	P200×3=600	P200×4=800
С	752	952	1,152
d	700	900	1,100
е	650	850	1,050
f	P100×6=600	P100×8=800	P100×10=1,000

\*The design of the service access depends on the installation method. Refer to the installation manual for more information.



Drain po	ort Gas pip	e
	<u> </u>	_
i i i i i i i i i i i i i i i i i i i		Ω Ω
4	Щ <u></u>	<u> </u>
Liquid pipe	Drain po	rt

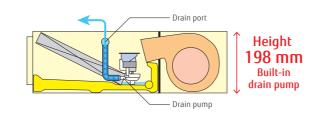
Slim Duct/ Slim Concealed Floor (With drain pump)

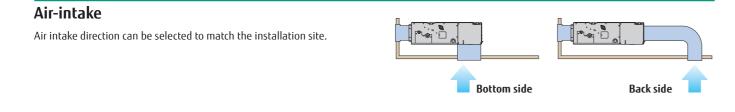


DC FAN

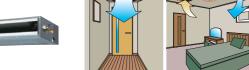
### Slim design

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





## Flexible installation Ceiling concealed



## Selectable with a wide range of static pressure

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

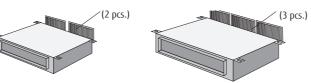


Filter (Accessory)

Floor concealed

### ARXD07 / 09 / 12 / 14 / 18

/ 12 / 14 / 18



ARXD24

Model: ARGD07GATH / ARGD09GATH / ARGD12GATH ARGD14GATH / ARGD18GATH / ARGD24GATH



ARGD07/09/12/14GATH

Model name			ARGD07GATH	ARGD09GATH	ARGD12GATH	ARGD14GATH	ARGD18GATH	ARGD24GATH	
Power source				Single phase, 220-240V, 50Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	
	Heating		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	m <sup>3</sup> /h (I/s)	490 (136)	550 (153)	510 (142)	710 (197)	840 (233)	1,240 (344)	
	Low		440 (122)	480 (133)	450 (125)	610 (169)	750 (208)	1,100 (306)	
Static pressure range		Ра	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50	
Standard static pressure			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 3	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 pipe diameter	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52	
	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88	
Drain hose diameter (I.D./O.D.)			25/32						

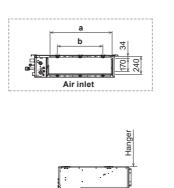
Note : Specifications are based on the following conditions.

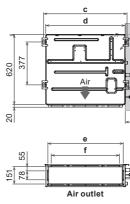
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

### **Optional parts**

Auto louvre grille kit: UTD-GXTA-W (for ARGD07 - 04) UTD-GXTB-W (for ARGD18) UTD-GXTC-W (for ARGD24) Remote Sensor Unit : UTP-XSZX IR Receiver Unit : UTB-YWC

### Dimensions (Unit: mm)





\*24 model is 0 to 50 Pa

70 OGENERAL

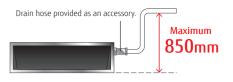




ARGD18GATH





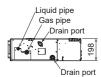




	ARGD07-14 GATH	ARGD18 GATH	ARGD24 GATH	
а	574	774	974	
b	P200×2=400	P200×3=600	P200x4=800	
с	734	934	1,134	
d	700	900	1,100	
е	650	850	1,050	
f	P100×6=600	P100×8=800	P100×10=1 000	

 f
 P100×6=600
 P100×8=800
 P100×10=1,000

 \*The design of the service access depends on the installation method. Refer to the installation manual for more information.



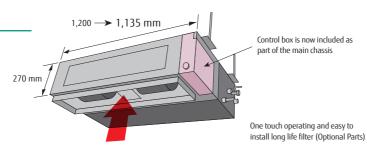
# Medium Static Pressure Duct



DC FAN

# Slim & Compact design

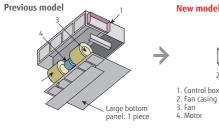
The slim and compact design of the indoor unit, with the control box mounted on the side of the unit, allows installation in narrow spaces.



om panel:

# 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.

Duct indoor unit

# Installation styles





# Easy setting by using remote controller

The change of static pressure range is possible by remote controller



**Two-direction** 

drain piping

Selectable with a wide range of static pressure

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



### Model: ARGA24GBTH / ARGA30GBTH ARGA36GBTH / ARGA45GBTH

### Specifications ARGA24GBTH ARGA300 Power source Cooling 9.0 7.1 kW Capacity Heating 8.0 10.0 108 Input power W 94 High 1,280 (356) 1,410 (39 m³/h Airflow rate 990 (275) 1,280 (3 Med (I/s) 840 (233) 1,150 (31 Low Static pressure range 30 to 150 30 to 15 Pa 100 Standard static pressure 100 High 31 34 Sound pressure dB (A) 32 Med 27 level Low 23 29 270 × 1,135 × 700 270 × 1,135 Dimensions (H × W × D) mm Weight kg(lbs) 39 (86) 42 (93) 9.52 9.52 Connection Liquid (Flare)

Note : Specifications are based on the following conditions.

mm

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].

# **Optional parts**

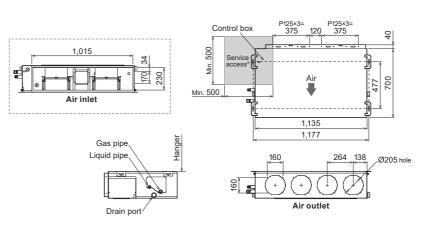
pipe diameter Gas (Flare)

Drain hose diameter (I.D./O.D.)

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

15.88

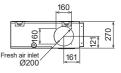
### Dimensions (Unit: mm)





ARGA36GBTH	ARGA45GBTH		
e, 220-240V, 50Hz			
11.2	12.5		
12.5	14.0		
194	240		
1,840 (511)	1,970 (547)		
1,600 (444)	1,860 (517)		
1,470 (408)	1,640 (456)		
30 to 150	30 to 150		
100	100		
37	41		
35	38		
33	36		
270 × 1,135 × 700	270 × 1,135 × 700		
42 (93)	42 (93)		
9.52	9.52		
19.05	19.05		
25/32			
	2, 220-240V, 50Hz 11.2 12.5 194 1,840 (511) 1,600 (444) 1,470 (408) 30 to 150 100 37 35 33 270 × 1,135 × 700 42 (93) 9,52		

\*The design of the service access depends on the installation method. Refer to the installation manual for more information.



# **OGENERAL** 73



# Static pressure selection

By using DC fan motor, it is possible to change static pressure range from 0 to 200 Pa (ARGC36) / 300 Pa (ARGC72 / 90 / 96).





Maximum



Maximum

(ARGC72 / 90 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.



(ARGC36 type)

(ARGC36 type)







(Unit: mm)

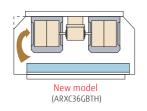
(ARGC72 / 90 type)



Low noise

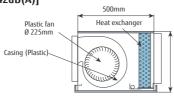
# Models : ARGC36

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.



# ARGC36GBTH : Plastic fan [42dB(A)]

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



(ARGC72 / 90 / 96 type)



Model: ARGC36GBTH ARGC72GBTH / ARGC90GBTH ARGC96GATH





ARGC36GBTH

Model name			ARGC36GBTH	ARGC72GBTH	ARGC90GBTH	ARGC96GATH					
ower source			Single phase, 220-240V, 50Hz								
	Cooling	kW	11.2	22.4	25.0	28.0					
Capacity	Heating	KVV -	12.5	25.0	28.0	31.5					
nput power		W	207	681	819	838					
	High		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)					
itatic pressure r	ange	Pa	0 to 200	0 to 300	0 to 300	0 to 300					
itandard static p	oressure	Pa	100	150 15		150					
	High	10	42	47	48	48					
ound pressure	Med	dB (A)	36	43	46	45					
	Low	0.0	32	40	44	42					
)imensions (H ×	W × D)	mm	400 × 1,050 × 500	450 × 1,587 × 700	450 × 1,587 × 700	550 × 1,587 × 700					
Veight		kg(lbs)	40 (88)	84(185)	84(185)	105(231)					
onnection	Liquid		9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)	12.70 (Brazing)					
oipe diameter	Gas	mm	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)	22.22 (Brazing)					
Drain hose diam	eter (I.D./O.D.)			25	/ 32						

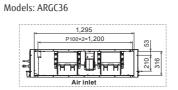
Note : Specifications are based on the following conditions.

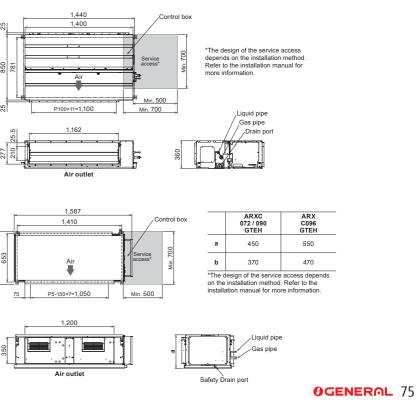
Cooling: Indoor temperature of 27\*CDB / 19\*CWB, and outdoor temperature of 35\*CDB / 24\*CWB. Heating : Indoor temperature of 20\*CDB / (15\*CWB), and outdoor temperature of 7\*CDB / 6\*CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

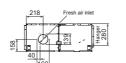
# **Optional parts**

Long-Life Filter : UTD-LF60KA (For ARGC36) Remote Sensor Unit : UTY-XSZX IR Receiver Unit : UTB-YWC

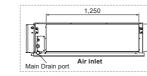
Dimensions (Unit: mm)

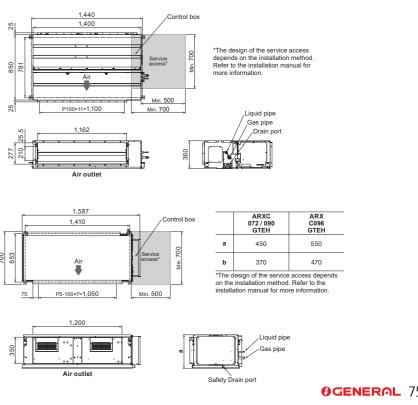




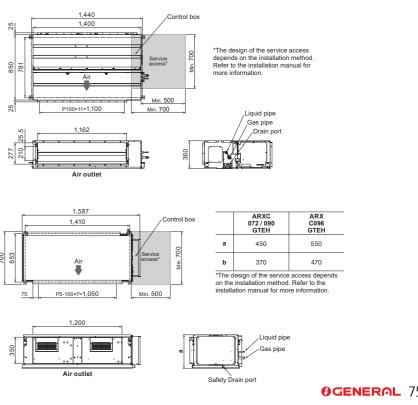


Models: ARGC72 / ARGC90 / ARGC96









efficiency DC fan motor Improved motor efficiency from previous model.

Low energy consumption by high











ARGC72/90GBTH

ARGC96GATH

High Static Pressure Duct

AC FAN

# 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.



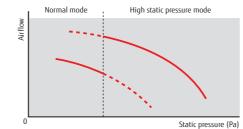
# Static pressure selection

# Models : ARGC72 / ARGC90

2 Types of static pressure mode are selectable.



# High Static Pressure Duct (ARGC72)

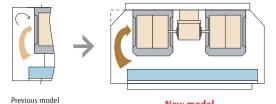


(Unit: mm)

# Low noise

# Models : ARGC45 / ARGC60

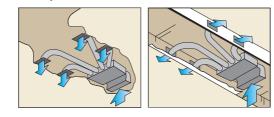
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



New model

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

# Installation styles



Model: ARGC45GATH / ARGC60GATH ARGC72GATH / ARGC90GATH



Model name			ARGC45GATH	ARGC60GATH	ARGC72GATH	ARGC90GATH					
ower source			Single phase, 220-240V, 50Hz								
	Cooling	kW	12.5	18.0	22.4	25.0					
Capacity	Heating	KWV	14.0	20.0	25.0	28.0					
nput 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	m <sup>3</sup> /h (I/s)	3,000 (833)	3,000 (833)	3,300 (917)	4,000 (1,111)					
	Low	(1/3)	2,460 (683)	2,460 (683)	3,000 (833)	3,500 (972)					
itatic pressure r	ange	Pa	100 to 250	100 to 250	50 to 300	100 to 300					
itandard static	oressure	Pa	100	100	260	250					
	High		49	49	51	53					
ound pressure evel	Med	dB (A)	45	45	48	51					
	Low		42	42	45	49					
)imensions (H	W × D)	mm	400 × 1,050 × 500	400 × 1,050 × 500	450 × 1,550 × 700	450 × 1,550 × 700					
Veight		kg(lbs)	46 (101)	46 (101)	83 (-)	85(-)					
onnection	Liquid (Flare)		9.52 (Flare)	9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)					
ipe diameter	Gas (Flare)	mm	19.05 (Flare)	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)					
Drain hose diam	eter (I.D./O.D.)	E F		25	/ 32						

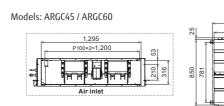
Note : Specifications are based on the following conditions.

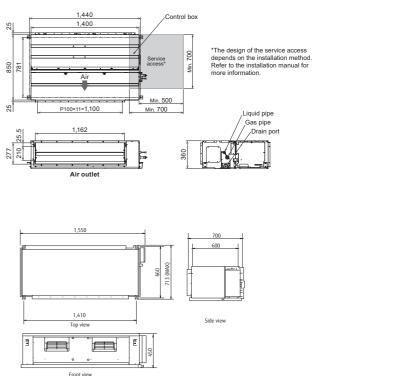
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

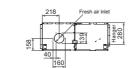
### **Optional parts**

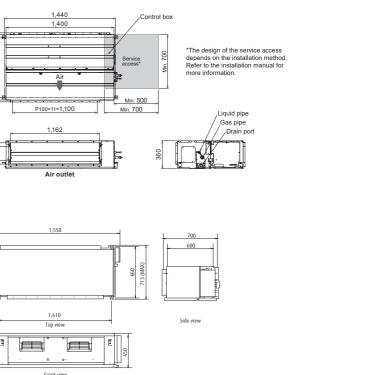
Long-Life Filter : UTD-LF60KA (ARGC45/60) IR Receiver Unit : UTB-YWC Remote Sensor Unit : UTY-XSZX

Dimensions (Unit: mm)

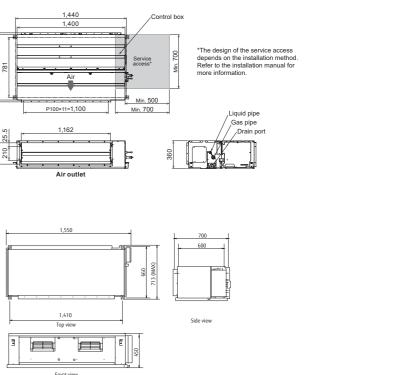








Models: ARGC72 / ARGC90









ARGC45/60GATH

ARGC72/90GATH

# Floor/Ceiling



# DC FAN

# Flexible installation

Example for floor installation Floor console



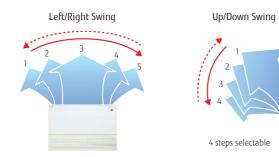
# Example for ceiling installation

Under ceiling



# Double auto swing

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



# High power DC fan motor

- High power Wide rotation range
- High efficiency



# Compact design

Symmetrical, slim and compact design.



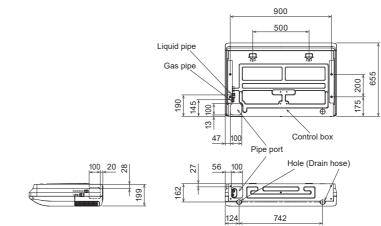
Model: ABGA12GATH / ABGA14GATH ABGA18GATH / ABGA24GATH

Model name			ABGA12GATH	ABGA14GATH	ABGA18GATH	ABGA24GATH					
Power source			Single phase, 220-240V, 50Hz								
<i>c</i>	Cooling		3.6	4.5	5.6	7.1					
Capacity	Heating	kW -	4.0	5.0	6.3	8.0					
Input power		W	30	42	74	99					
	High		660 (183)	780 (216)	1,000 (277)	1,000 (277)					
Airflow rate	Med	m <sup>3</sup> /h (I/s)	570 (158)	640 (177)	720 (199)	820 (227)					
	Low	(113)	490 (136)	550 (152)	580 (161)	680 (188)					
	High		36	40	46	47					
Sound pressure level	Med	dB (A)	32	36	39	42					
	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						

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].

**Optional parts** 

# Dimensions (Unit: mm)

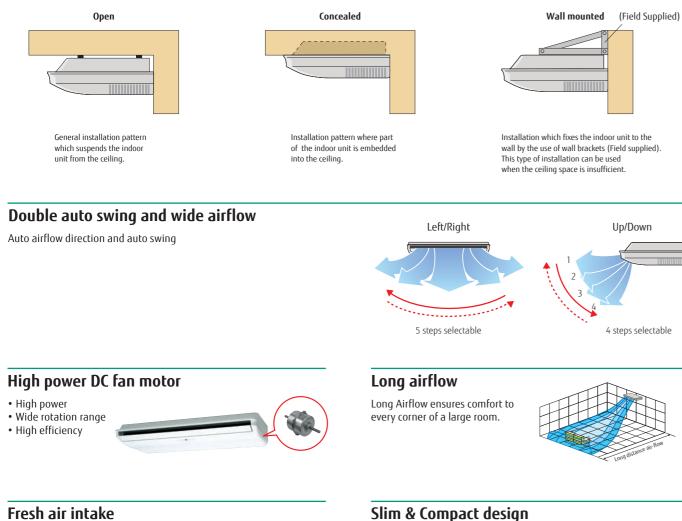




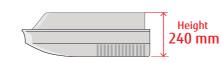




# Installation



# Slim & Compact design



Model: ABGA30GATH / ABGA36GATH ABGA45GATH / ABGA54GATH



Model name			ABGA30GATH	ABGA36GATH	ABGA45GATH	ABGA54GATH					
Power source			Single phase, 220-240V, 50Hz								
(	Cooling	kW	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)					
	Med	m <sup>3</sup> /h (I/s)	1,370 (379)	1,400 (389)	1,600 (444)	1,780 (493)					
	Low	(1/3)	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					
	Low	0.0	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						

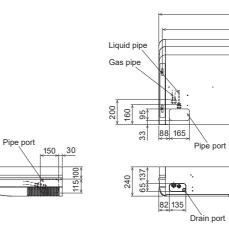
Note : Specifications are based on the following conditions.

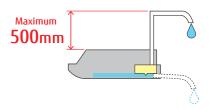
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB. Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

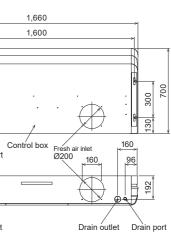
# **Optional parts**

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

### Dimensions (Unit: mm)









# 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-fineparticle ceramic.

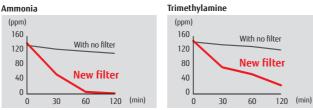
. (\*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)



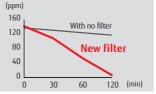
# Apple-catechin Filter

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)



Hydrogen sulfate



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



Model: (EEV internal) ASGA07GACH / ASGA09GACH ASGA12GACH / ASGA14GACH (EEV internal) ASGA07GATH / ASGA09GATH ASGA12GATH / ASGA14GATH (EEV External)

ASGE07GACH / ASGE09GACH ASGE12GACH / ASGE14GACH

### Specifications

Model name			ASGA07GACH ASGA07GATH	ASGA09GACH ASGA09GATH	ASGA12GACH ASGA12GATH	ASGA14GACH ASGA14GATH	ASGE07GACH	ASGE09GACH	ASGE12GACH	ASGE14GACH	
Power source				Single phase, 2	20-240V, 50Hz		Single phase, 220-240V, 50Hz				
Constanting	Cooling	kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5	
Capacity	Heating	KW	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	m3/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	
icvei	Low		27 / 31* <sup>1</sup>	27 / 31* <sup>1</sup>	31	32	26 / 30* <sup>1</sup>	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 diam	neter (I.D./O.D.)	1		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].

**Optional parts** 

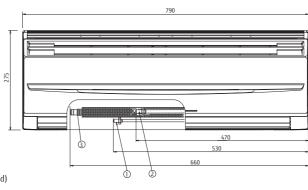
# Compact size

# Powerful output even compact design

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



Dimensions (Unit: mm)



Refrigerant piping flare connection (Liquid)
 Refrigerant piping flare connection (Gas)
 Drain piping connection

# High power DC fan motor

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



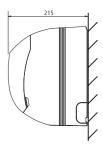
# Easy maintenance

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





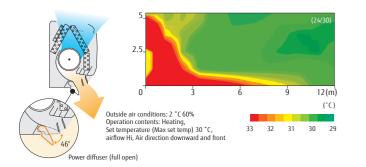
\*1 : This value is under cooling operation.





# 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

Ion Deodorization Filter

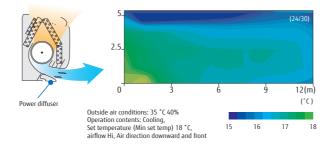
Apple-catechin Filter

particle ceramic.

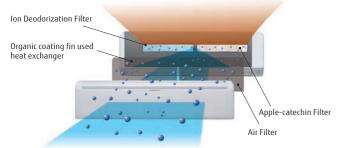
dust in the air.

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

Apple-catechin filter uses static electricity to clean fine particles and



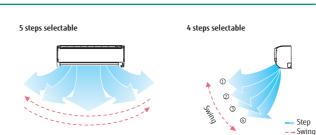
# Air conditioner filter features



High quality air conditioning by incorporation of high performance filter.

# Double auto swing

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



Model: (EEV internal) ASGA18GACH / ASGA24GACH / ASGA30GACH ASGA18GATH / ASGA24GATH / ASGA30GATH

### Specifications ASGA18GACH ASGA18GATH Power source 5.6 Cooling Capacity kW Heating 6.3 Input power W 32 840 (233) High m3/h (I/s) Airflow rate Med 770 (213) Low 690 (191) High 41 Sound pressure level dB (A) Med 39 Low 35 Dimensions ( $H \times W \times D$ ) mm 320 × 998 × 228 kg(lbs) 15 (33) Weight Liquid (Flare) 9.52 Connection pipe diameter Gas (Flare) 15.88 mm Drain hose diameter (I.D./O.D.)

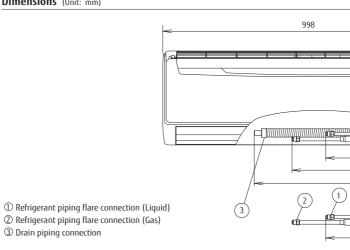
Note : Specifications are based on the following conditions.

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

**Optional parts** 

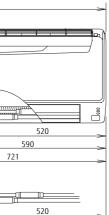
Dimensions (Unit: mm)

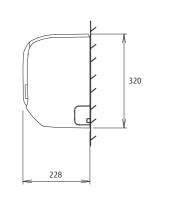
③ Drain piping connection





ASGA24GACH ASGA24GATH	ASGA30GACH ASGA30GATH
Single phase, 220-240V, 50Hz	
7.1	8.0
8.0	9.0
60	91
1,100 (305)	1,240 (343)
910 (252)	980 (271)
730 (202)	770 (213)
48	52
43	45
35	35
320 × 998 × 228	320 × 998 × 228
15 (33)	15 (33)
9.52	9.52
15.88	15.88
12 / 16	





# **VRF CONTROL SYSTEMS**

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



# User friendly control system provides individual control to centralized control

The VRF 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

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

SHOP						
Туре	Individual Control	Centraliz	ed Control		Integrating Control (Interface)	
				<b>•</b>	<b>&gt;</b>	-
1 Parte	Wired Remote Controller	Central Remote Controller	System Controller	Network Converter for LonWorks®	MODBUS® Converter	KNX® Convertor
	UTY-RVRG, UTY-RNRGZ5, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-DCGGZ3	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•	٠	•			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)		٠	•	•	•	٠
Group Control		•	•			
Advanced Energy Saving (Peak cut, Indoor unit lead lag operation etc.)			•			
Remote Management			•			
Manage multiple sites			•			
Monitor energy consumption			•			
Control third party products			•			
Integrate FGL A/C into BMS				•	•	٠

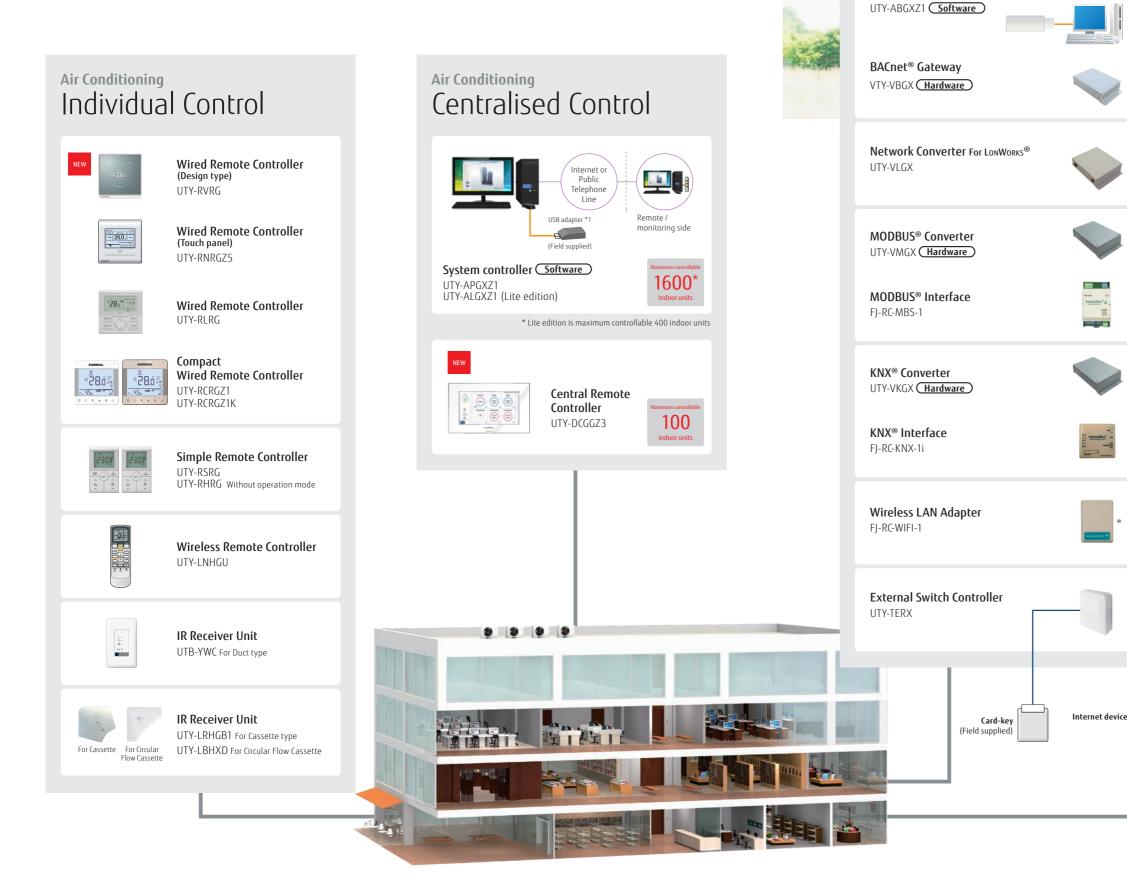
# HOTEL

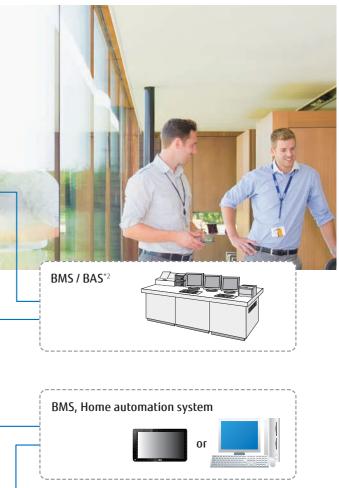
Туре		ividual ontrol		Centralize	ed Control		Integra	ating Control (Int	erface)	
					<u>.</u> ,	-	•	<b>&gt;</b>	>	
	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Central Remote Controller	System Controller	BACnet® Gateway	Network Converter for LonWorks®	MODBUS® Converter	KNX® Convertor	External Switch Controller
	UTY-RVRG, UTY-RNRGZ5, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-RSRG, UTY-RHRG	UTY-LNHGU	UTY-DCGGZ3	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				•	•	•	•	٠	•	
Limited control for hotel guests				•	•	•	•	٠	•	
Remote Management					•					
Advanced Energy Saving (Peak cut, Indoor unit lead lag operation etc.)					•	•				
Monitor energy consumption					•					
Control third party products					•					
Integrate FGL A/C into BMS						•	•	٠	•	
Interlock with window contact										•
Interlock with key-card										•

OFFICE										
Туре		lividual ontrol		Centraliz	ed Control		Integr	ating Control (Int	erface)	
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		-	٠	-	-	
for Alighters in	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Central Remote Controller	System Controller	BACnet® Gateway	Network Converter for LonWorks®	MODBUS® Converter	KNX® Convertor	External Switch Controller
	UTY-RVRG, UTY-RNRGZ5, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-RSRG, UTY-RHRG	UTY-LNHGU	UTY-DCGGZ3	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 lead lag 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.





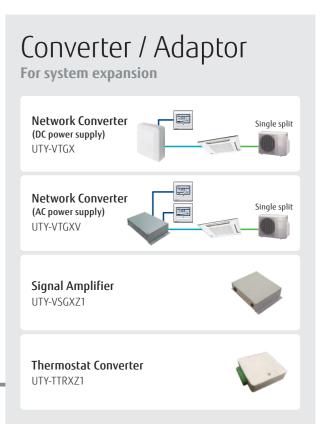
Converter / Adaptor

For external device

BACnet<sup>®</sup> Gateway

\*1. USB Adaptor: Echelon™ U10 USB Network Interface

\*2. BMS/BAS: Building Management System/Building Automation System



# **OGENEROL** 91

# COMPARISON TABLE OF CONTROLLERS

				288°*	-280-1 -280-1						
	Wired Remote Controller (Design type)	Wired Remote Controller (Touch panel)	Wired Remote Controller	Compact Wired Remote Controller	Compact Wired Remote Controller	Simple Remote Controller	Simple Remote Controller*1	Wireless Remote Controller	Central Remote Controller	System Controller Lite	System Controller
del name	UTY-RVRG	UTY-RNRGZ5	UTY-RLRG	UTY-RCRGZ1	UTY-RCRGZ1	UTY-RSRG	UTY-RHRG	UTY-LNHGU	UTY-DCGGZ3	UTY-ALGXZ1	UTY-APGXZ1
k. controllable remote controller groups	1	1	1	1	1	1	1	1	100	400	1600
controllable indoor units	16	16	16	1	1	16	16	16	100	400	1600
k. controllable groups	-	-	-	-	_	-	-	-	50	400	1600
On / Off	•	•	•	•	•	•	•	•	00	400	
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	•	•	-	•	•	-	-	-	•*3	-	-
Group setting	-	-	-	-	_	-	-	-	•	•	•
RC prohibition	-	-	-	-	_	_	-	-	•	•	•
Anti freeze setting	•	•	-	•	•	-	-	-	•	•	•
Set temp. auto return	•	•	•	-	-	-	-	-	-	-	-
Economy mode setting	•	•	•	•	•	-	-	•	•	•	•
Human sensor control	•	•	-	-	-	-	-	-	•	•	٠
Error	٠	•	•	•	•	•	•	-	•	•	٠
Defrosting	٠	•	•	•	•	٠	•	-	•	•	•
Current time	•	•	•	-	-	-	-	•	•	•	٠
Day of the week	•	•	•	-	_	-	-	-	•	•	•
R.C. prohibition	•	•	•	•	•	•	•	-	•	•	•
Address display	•	•	•	•	•	•	•	_	_	•	•
Room temp	•	•	_	•	•	•	•	_	*4	•* <sup>4</sup>	•*4
Multi-language	•	•	_	_			_	_	•	•	•
Summer time	•	•	-	_	_	_	-	_	•	•	•
Name registration	•	•	-			_	-	_	•	•	•
Backlight	•	•	_	•	•	•	•	_	•	_	
	_				_						•
2D floor layout / 3D building display Refrigerant leakage detection function		-	-	-			-	-	-	-	
	-	-	-	-	-	-	-	-			•
Logo Display		-	-	-	_	-	-	-	-	-	-
Period Schedule ON/OFF, Temp, timer Low noise mode* <sup>5</sup> ,	Week 8	Week 8	Week 4				_		Week 20	Year 144	Year
Times per day           On/off timer		•	•	• (OFF only)	●(OFF only)			•			
Sleep timer	_	_	-	- (011 01119)							
	_	-	_	-		_		•		-	
Program timer	-	-	-	-	-		-		-	-	-
Auto off timer				-	-		-	-		-	_
Day off	•	•	•	-	_	-	-	-	•	•	•
Min. unit of timer setting (Minutes)	1 • 10	10 • 30	30	-	-	—	-	5	10	10	10
Status monitoring system	-	-	-	-	_	_	-	-	•	•	•
Electricity charge apportionment	-	-	-	-	-	-	-	-	-	0	•
Error history	•	•	•	-	_	-	-	-	•	•	•
Emergency stop	-	-	-	-	_		-	-	•*2	-	-
Remote management	-	-	-	-	-	-	-	-	•	0	٠
Energy saving management	-	-	-	-	-	-	-	-	-	0	0
E-mail notification for malfunction	-	-	-	-	_	_	-	-	•	•	٠
Key lock	Child lock	Child lock	Child lock	_	_	-	_	-	• Password setting	• Password setting	• Password setting

\*1 "Operation mode" setting is not available for this model. \*2 This function is available only through external input control. \*3 Only individual airflow batch reset is mounted. \*4 This function is available only when using wired remote controller. \*5 UTY-DCGGZ3 only •: Supported O: Optional function -: Not supported yet

# VRF Control Systems Individual Controller

# Wired remote controller (Design type)



# Simple and stylish design that harmonizes with the space

• The new stylish design controller, UTY-RVRG, enables intuitive operation with touch screen. It is compatible with many 2-wired indoor units.

# Harmonizes with the Installation Space





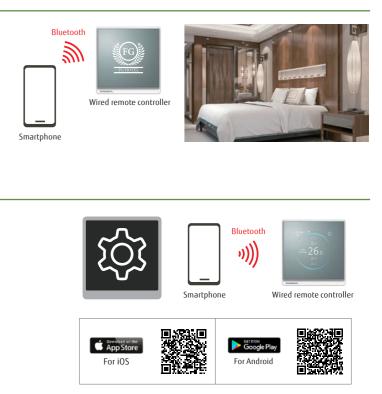
When not in use, the controller is a part of the interior décor. This is achieved by using mirrors, glass, and clear panels, and it appears to be one with the wall. The sleek and stylish design won the 2022 Good Design Award and was selected as a finalist for the 2023 IDEA award.



# Features: Wired remote controller (Design type)

# Logo Display

The controller can display hotel logos when not in use. Images are sent via Bluetooth<sup>®</sup> connection where data is saved in the flash memory built into each controller. \* Color display available



# AIRSTAGE Remo Set application (free download)

Set up your new Wired Remote Controller via Bluetooth from your smartphone (or directly at the controller).

### Features:

- Initial configuration
- Function setting
- Custom logo import
- Copy settings between controllers

# Intuitive operation

The touch screen is easily operated by swiping vertically and horizontally, and users can operate the controller without using manuals.







# Initial Settings / Indoor Unit Function

The initial controller settings and indoor unit function settings can be sent from a smartphone by pairing with the controller via Bluetooth. It also can read the setting values of a paired controller, and send a copy of them to one or more additional controllers, significantly reducing installation time.

# **Status LED Colors**

When not in use, the operation mode is indicated through LED lamp colors shown under the controller. The LED lamp can be switched ON and OFF to avoid glare at night.



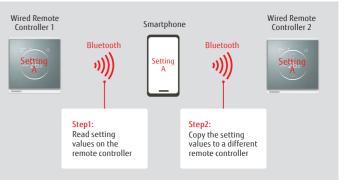
Blue: Cooling

Red: Heating



Specifications	
Model name	
Development of the second seco	1

Model name		
Power Supply		
Dimensions (H x W x D) mm		
Weight	g	



\*Smartphone : Wired Remote Controller = 1 : 1

UTY-RVRG	
DC 12V	
121.5 × 116 × 26	
225	

# Wired remote controller (with touch panel) IITY-RNRG75



# 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



# 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.



# 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.

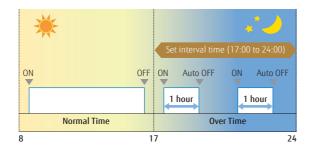
# Auto OFF timer

- 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

Set Temperature Upper and Lower Limit Setting

2 schedules Weekly Timer

Set Temperature Auto Return



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

Change over

Change over

**Cooling Set Point** 

Heating Set Poin

Operation Star

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

Features: Wired remote controller (with touch panel)

# Various energy saving control

# Displays setting status and Limitations

• The remote controller settings can be easily checked



# Summer Time display

Air Fle

Monitor

• This function can be set easily from Menu screen

Main Menu Summer Time Setting	Page 2/ 2 Preference
Initial Setting	Maintenance
Monitor	Prevideax Page
	6/1

# Child lock

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

Child Look	
<u>6/1</u>	
 -	

# 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.



# 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.



### Specifications Power Supply Dimensions (H x W x D) mm Weight q DC12V is supplied by indoor unit.

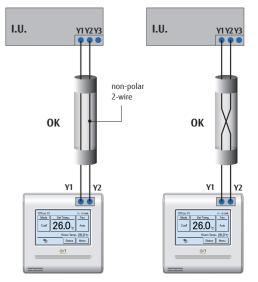
96 **∂GENER∩L** 



# Simplified installation

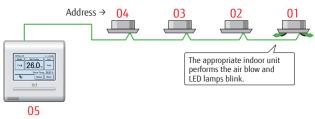
# Uses non-polar 2-wire type

• 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.

Error H		kilmas	Fage 1/ 3 Eade	Ĩ
	2/8/1 11:004		141	
	2/ 7/20 2.534		163	
3 201			143	
4 234	2/ 7/23 11:004	005-01	141	
5 200			141	
6 200	2/7/21 11:00M	002-01	141	
Back		Nont Page	Ense All	J
	<u>0</u>	/1		
				∍

UTY-RNRGZ5	
DC 12V	
120 × 120 × 20.4	
220	

# Wired remote controller UTY-RLRG

# °**28**.0



### • 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

# High performance and compact size

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



# Visually intuitive operation

- The operation mode, set temperature, and fan speed are shown prominently on the top screen.
- Each function to be set is indicated by an icon.
- The control guide makes it simple and straightforward to operate
- a remote controller.

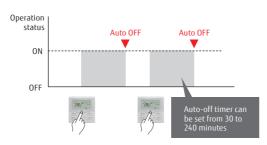




# Simple operation with easy 4-way navigation pad

# 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 se temperature can be changed is 30 to 240 minutes.

	Setting	Cooling operation temp.	Heating operation Setting temp.	
et is	24°C 22°C	Set temperature change Auto return	25°C 23°C Set temperature change Auto return Settable time range 30 to 240 minutes	
		Tir	me T	im

# Compact wired remote controller UTY-RCRGZ1 / UTY-RCRGZ1K

• 2-wire type







# Large screen and simple display

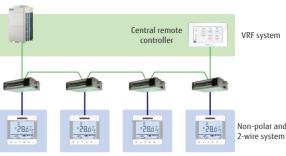
- Although the size is compact, the screen is large • Large letters makes it easy to see
- Operation is simple and easy-to-understand

1 Visible large letter
2 Touch key (Frequently-used operation is placed on the
3 Operation mode
4 Menu
5 Air flow
6 Built in IR reciever
7 LCD with backlight is clearly visible in the dark
8 Easy-to-understand pictograph display
9 LED is mounted for the ON/OFF key (Green light on wh

# System overview

# • VRF connection

One indoor unit and one remote controller are connected in one non-polar and 2-wire remote controller system.



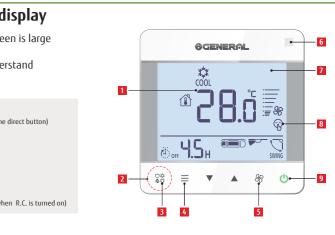
Compact Wired Remote Controller

### Specifications DC 12V Power Supply 120 × 120 × 17 Dimensions (H x W x D) mm Weight 170 q

Model name		UTY-RCRGZ1	UTY-RCRGZ1K
Power Supply		DC 12V	
Dimensions (H x W x D)	mm	86 × 86 × 44	
Weight	q	135	

DC12V is supplied by indoor unit.

### • Simple design to match the stylish interior • Easy to install : Body of controller is designed to fit in European standard junction box • Can be operated both by wireless and wired remote controller.



# • RAC (Room air conditioner) connection

One indoor unit and one remote controller are connected in one non-polar and 2-wire remote controller system.



Compact Wired Remote Controlle

Non-polar and 2-wire system

# Simple remote controller

UTY-RSRG / UTY-RHRG (without operation mode)

23	IQ I	23	UĮ.
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.
- 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

• Vertical louver control:

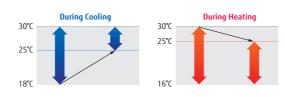




Duct types with auto louver and Cassette types, which are installed in hotels and

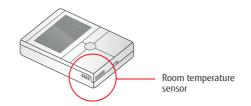
conference rooms, can be adjusted.

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.



Wireless remote controller

UTY-LNHGU

Up to

Up to

Up to

1 group



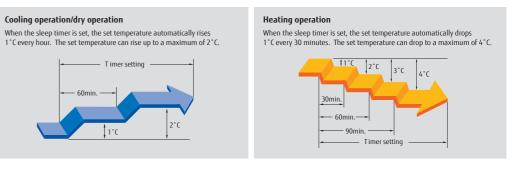
16 indoor units

4 different daily timers

• A single controller controls up to 16 indoor units.

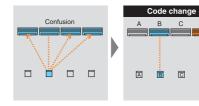
# **Built-in daily timer**

Select from 4 different timer programs : On / Off / Program / Sleep prevent excessive cooling or heating during sleep hours.



# Easy installation and operation

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



# Address setting

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

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

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

# 100 **OGENEROL**

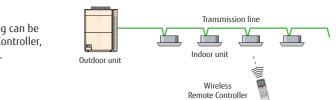
# Simple and sophisticated operations with a choice of 4 daily timers

- 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

Ď

### Wide and precise





# IR receiver unit for duct type

# 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.

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



# Specifications

< Wireless Remote Contr	oller >	
Model name		UTB-YWC
Power Supply		1.5 V (R03/LR03/AAA)
Dimensions (H x W x D)	mm	170 × 56 × 19
Weight	g	85
< IR Reciver Unit>		
Battery		DC 5V
Dimensions (H x W x D)	mm	145 × 90 × 30
Weight	g	150
weight	9	001

# IR receiver unit for Cassette UTY-LRHGB1, UTY-LBHXD

. ...

Cassette type indoor unit can be controlled with Wireless Remote Controller

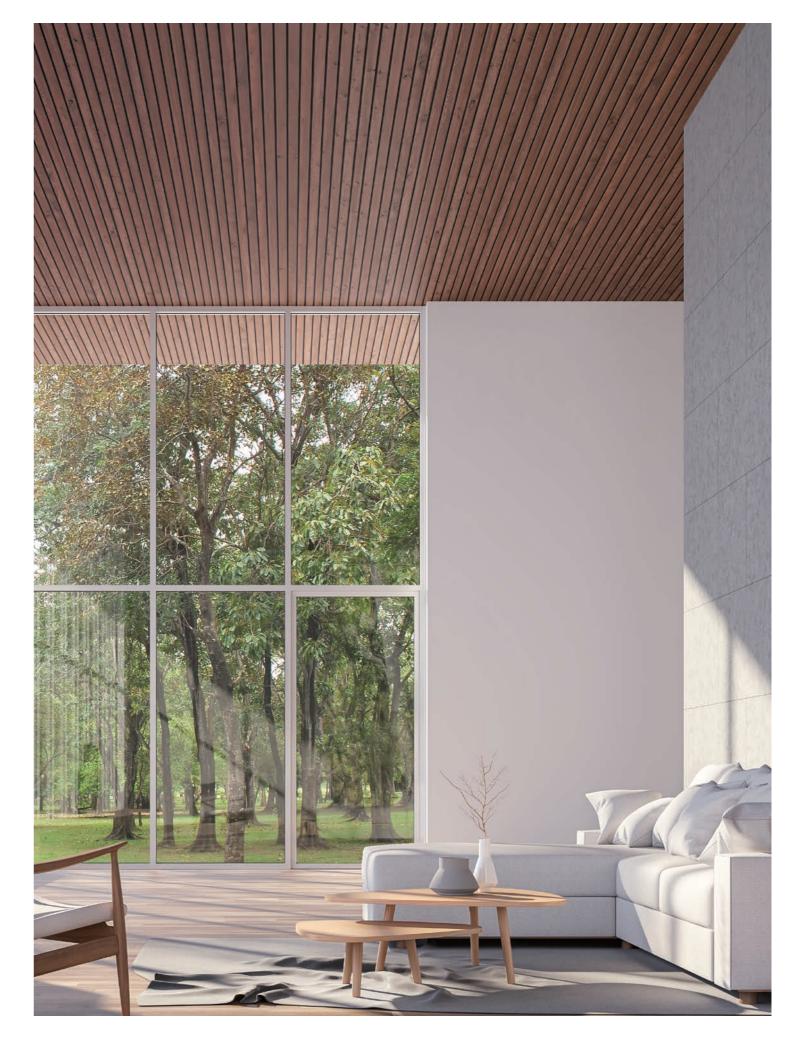
# Wiring connection





# Specifications

Model name		UTY-LRHGB1	UTY-LBHXD
Power Supply		1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)
Dimensions (H x W x D)	mm	170 × 56 × 19	170 × 56 × 19
Weight	g	85	85
< IR Reciver Unit> Battery		DC 5V	DC 5V
	mm	193.9 × 193.9 × 31.2	193.9 × 193.9 × 31.2
Dimensions (H x W x D)			







100 indoor units

50 groups

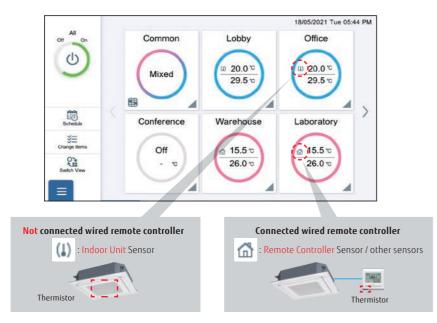
# For tenants in small to midsize commercial premises

- Individual control and monitoring of up to 100 indoor units
- 7.0inch TFT color screen
- Visually intuitive operation
- Room temperature display by indoor unit sensor & remote controller sensor
- 50 Remote Controller Groups Display & remote controller group rename
- Supports 14 languages: Chinese (Simplified/Traditional), Dutch, English, French, German, Greek, Italian, Polish, Portuguese, Russian, Spanish, Turkish, and Thai (Remote Management only)

# **Easy Management**

# Air conditioning management by detecting room temperatures of each room

The room temperature detected with indoor unit sensor or remote controller sensor can be displayed. New model can detect the room temperature by indoor units sensors even if wired remote controllers are not connected to the indoor units.



to switch

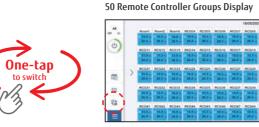
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# 50 Remote Controller Groups Display

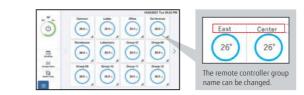
The group display and the 50 remote controller groups display can be switched easily. Users can choose which display is better, depending on the situation.

# Group Display



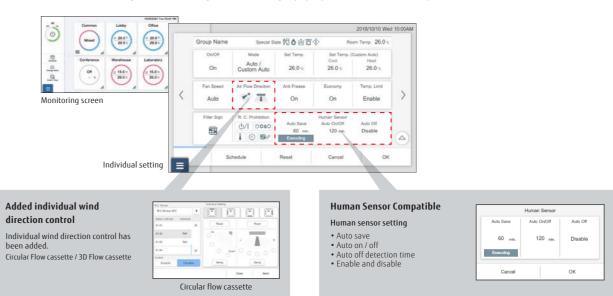


Manage & Monitor by 50 Remote Controller Groups



### Features: Central Remote Controller

- Easy intuitive operation from the touch panel display.
- All functions can be accessed through the monitoring screen showing a pop-up window for detailed operation.



# **Remote Management**

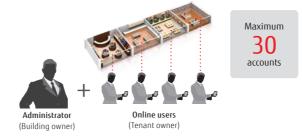
# **Remote monitoring / Remote operation**

New central remote controller can control your tenant's air

conditioner anytime and anywhere.

When the central remote controller manages the indoor units of some tenants, air conditioning of each tenants can be managed separately online.

Increased the Number of Accounts



# Remote Management

# Annual schedule

- An annual schedule can be arranged for each remote controller group or user-defined group.
- Allows for the programming of special settings for weekends, holidays, and store closings throughout the year.

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						C Seed Desei					-		
						The second se							

### Specifications

Model name			
Power Supply			
Dimensions (H x W x D)	mm		
Weight	g		

**Remote Controller Groups Rename** The remote controller group names can be

changed. Users can know easily where the air conditioning is located by changing the remote controller group names.



	om Temp. 26.0 c	Ro
	Custom Auto) Heat	Set Temp. ( Cool
	26.0 v	26.0 v
	Temp. Limit	Economy
>	Enable	On
		Human Sensor
	Auto Off	Auto On/Off
	Disable	120 mp.
	ок	Cancel

# Trouble support function

### Display error details

Display descriptive explanation when an error occurs



Display error details - Indoor unit error Outdoor unit error Central remote controller error

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

### Notify room temperature by email\*

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

\*:This function is available only when using wired remote controller.

# low noise schedule

Low noise operation of outdoor units can be scheduled.

No. To	The	The	81	Set	Ser .
front front		70410	Trac N		

Timer 01	1 8		(a) (a) (a)
Start Time	816 Tana	Low Note Love	Pranky
			Life Tests
1 11.01.00	10.00		Performance
	10.00.000		Partometer
4 1000.000	12.00.446		

Automatic return to set temperature A function that automatically returns the changed temperature to its original value over time.

UTY-DCGGZ3	
100-240 V 50 / 60 Hz	
134.6 × 216.2 × 37.9	
800	

# System controller UTY-APGXZ1 (Software)





integrated monitoring and control of VRF network systems operating in small to large buildings.

- Up to 1.600 indoor units and 400 outdoor units on up to 4 VRF network systems can be controlled. • To accommodate facility management needs, the system controller offers-in addition to precise air conditioning control-remote central control, electricity charge apportionment, schedule management, and energy-saving options for VRF network systems.
- Supports 7 languages: Chinese, English, French, German, Polish, Russian, and Spanish.

# System controller lite UTY-ALGXZ1 Software





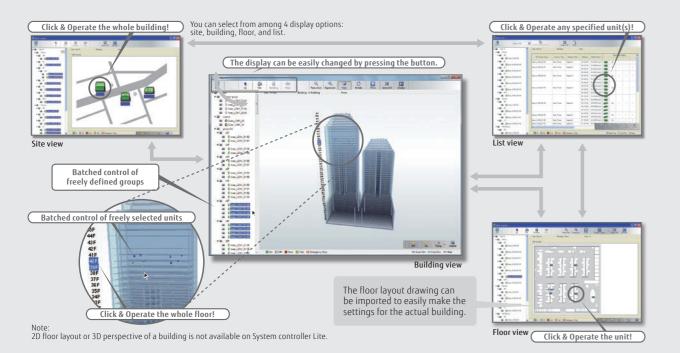
# System controller Lite offers a set of standard functions to manage air conditioners operating in a small or midsize building.

- Up to 400 indoor units and 100 outdoor units on a VRF network system can be controlled. • In addition to precise air conditioning control, a variety of applications are available as options to
- offer a wider range of control. • Supports 7 languages: Chinese, English, French, German, Polish, Russian, and Spanish.

# Visually intuitive 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.

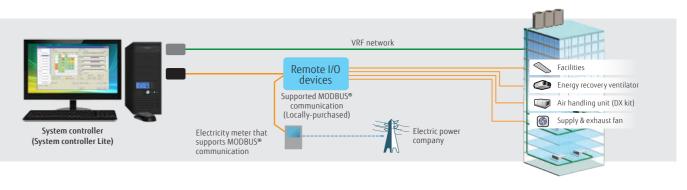


Features: System controller / System controller lite

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

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

When a MODBUS® adapter (locally available) is connected to a computer, electrical equipment and devices supported by MODBUS® can be monitored and controlled centrally from the computer. The central control can reduce wasted energy throughout an entire building resulting from a failure to turn equipment off during or after work, as well as reduce the need for on-site patrols.



# Wide-ranging operation and data management

Standard System controller and System controller Lite

### Schedule management

- An annual schedule can be arranged for each remote controller group or user-defined group.
- ON/OFF, operation mode, remote controller prohibition, and temperature settings can be programmed for up to 143 times per day at 10-minute intervals and for up to 101 configurations for each remote controller group.
- Settings can be programmed for a period that spans midnight.
- Allows for the programming of special settings for weekends, holidays, and store closings throughout the year.
- Low noise operation of outdoor units can be scheduled.



# Electricity charge apportionment

Standard on System controller Option System controller Lite UTY-PLGXA2

# Electricity charge apportionment method

This is a method to calculate monthly energy costs to be allocated to each tenant based on the amount of energy used by their air conditioners. The first step is to determine exactly how much energy is consumed by air conditioners in each tenant space. The second step is to divide the total energy charge billed by an electric power company based on the amount of energy used by each tenant to determine the energy cost to be allocated to each of them. (See figure on right)

The calculation takes into consideration such factors as the number of unused rooms and nighttime electricity rate, which are shown in detail on an energy cost allocation schedule.

# Wide-ranging control of indoor and outdoor units

- The operation status and mode of each indoor unit are displayed.
- Turn on and off each indoor unit and switch its operation mode.
- Setting temperature range limitation
- Low noise setting of outdoor units

# Remote controller prohibition

Prohibits the operation mode, temperature setting, or ON/OFF of an indoor unit.

# Error alert and e-mail notice

When something goes wrong, an error message is shown in a popup on a computer display with a chime, and an e-mail notice is sent. Errors of the past one year are logged and can be reviewed.

# Operation and control history

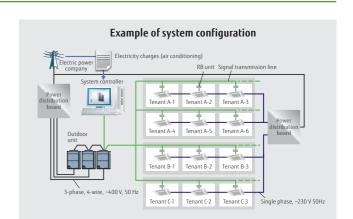
A history of operation status and control can be maintained and retrieved

# Importing and exporting databases

Only an administrator is authorized to import and export registration, layout, and image data.

# Automatic clock adjustment

Time can be set for all controllers in batch automatically.



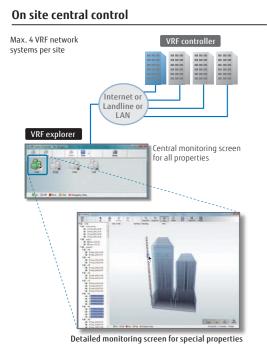
# **OGENEROL** 107

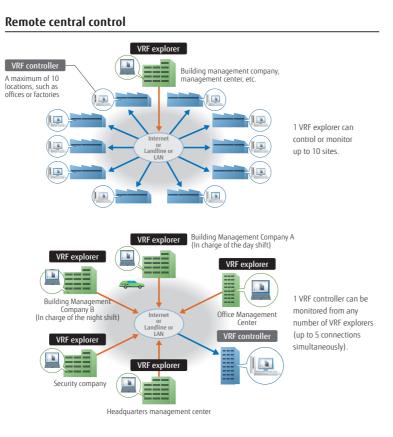
### Features: System controller / System controller lite

# Remote monitoring management

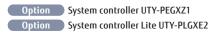
Standard on System controller Option System controller Lite UTY-PLGXR2

The System controller can be used on site or remotely over networks for remote central control. The System controller requires 2 software programs working together: The VRF controller runs on site and communicates with the VRF system; The VRF explorer, which runs at a remote location, provides a user interface and communicates with the VRF controller. The VRF controller and the VRF explorer run on a single computer or on different computers connected on a network. A computer running VRF explorer can centrally control up to 10 VRF system sites having up to 20 buildings each.





# Energy-saving management



A variety of energy-saving options can be selected depending on the season, weather, and time of day. Excellent energy-saving operation is performed while keeping users comfortable.



Main screen for energy-saving management

Energy saving graph data: This chart compares the energy consumption for the current month with the previous month and with the same month of the previous year to keep track of the energysaving performance.

### Indoor unit rotation

Indoor units can be automatically rotated to operate within a group in accordance with a predetermined annual schedule to reduce power consumption while keeping users comfortable. The operation stoppage rate can be selected for an indoor unit.

### Peak-cut mode

The system controller monitors the connected power meter and controls the energy to maintain the target power consumption set for each time period by changing the set temperature of the indoor units or turning off the thermostat so as to keep the users comfortable. Indoor units to be controlled can be grouped in many ways, and the control level can be set for each group.

### Capacity saving for outdoor unit

The upper limit on the capacity of an outdoor unit can be adjusted to reduce power consumption during a hot summer or cold winter by averaging out the power-saving performance of each refrigerant system. The upper limit on capacity can be set at 50% of the rated capacity or more.

### Summary of functions

			System	controller		S	ystem controller Li	te	
			UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX
		RF networks supported	4	-	1	-	-	-	-
	Max. number of in	door unit and remote controller groups per VRF network	400	-	400	-	-	-	-
pecifications		door units per VRF network	100	-	100	-	-	-	-
		oor units and remote controller groups per System controller	1600	-	400	-	-	-	-
		utdoor units per System controller	400	-	100	-	-	-	-
	Multiple site displa		10	-	10	-	-	-	-
	Number of buildin Number of floors p	gs per site	20 200	-	-	-		-	-
	Number of floors		50	-	-	-	-	-	
te	3D graphical layou		0			_			
ipervision	2D graphical layou		•	_	_	-	_	-	_
	List display		•	-	•	-	_	-	-
	Tree display		•	-	•	-	-	-	-
	Group display		•	-	•	-	-	-	-
	Error notification		•	-	•	-	-	-	-
ror anagement	Audible alarm		•	-	•	-	-	-	-
anagement	E-mail notification of errors		•	-	•	-	-	-	-
	Error history		•	-	•	-	-	-	-
istory	Operation history		•	-	•	-	-	-	-
	Control history	ON/OFF	•	-	•	-			-
		ON/OFF Operation mode*	•	-	•			_	-
		Room temperature		-		-	-	-	-
		Fan speed	•		•				
	Individual control	Airflow direction	•	_	•	_	_	_	_
		Economy mode	•	-	•	_	_	-	-
peration		Setting temperature range limitation	•	-	•	-	-	-	-
ontrol		Anti-freeze	•	-	•	-	-	-	-
		Low noise setting of outdoor units	•	-	•	-	-	-	-
	Individual	Remote controller prohibition	•	-	•	-	-	-	-
	management	Setting temperature range limitation	•	-	•	-	-	-	-
	Indiagement	Filter sign reset	•	-	•	-	-	-	-
	Other	memory operations	•	-	•	-	-	-	-
		Pattern operations	•	-	•	-	-	-	-
	Annual Schedule	6 I.	•	-	•	-	-	-	-
	Setting for a speci	fic date	-	-	-	-	-	-	-
chedule	ON/OFF per day ON/OFF per week		72 504	-	72 504	-	-	-	
criedule	Day off		504	-	504	-	_	-	
		imer setting (minutes)	10		10	_	_	_	_
	Weekly schedule f		•	_	•	_	_	_	-
	Web Operation		•	-	•	-	-	-	-
emote	Remote monitorin	q	•	-	-	•	-	-	-
onitoring	Remote operation		•	-	-	٠	-	-	-
anagement	Remote function s	etting	•	-	-	•	-	-	-
		arge/bill calculation	•	-	-	-	•	-	-
	Tenant (block) set		•	-	-	-	•	-	-
ectricity charge	Lommon facilities	apportionment setting	•	-		-	•	-	-
portionment		umption allotment	•	-		-	•	-	-
		ions for cooling and heating		•		-	•	-	-
	Electricity meter s Indoor unit rotatio		+ -	•	-	-		-	-
	Peak cut control		-	•		_	_	•	_
nergy-saving	Capacity saving fo	r outdoor unit	-	•	-	-	_	•	_
anagement	Record of energy-s		-	•	-	- 1	-	•	_
	Information on en		-	•	-	_	-	•	-
	Power consumption		-	•	-	-	-	•	-
	Electricity meter s			•		-	-	•	-
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xternal devices			•	-	_	-	-	-	۲
	Importing and exp	orting databases	•	-	•	-	-	-	-
	Automatic clock a		•	-	•	-	-	-	-
)thers	Multiple language		7 languages	-	7 languages	-	-	-	-
	Refrigerant leak d Power shutdown	etector	•	-	•	-	-	-	-
						_			1

### Computer requirements The specifications required for the computer are shown in the table below:

	System controller	System controller Lite
Operating system	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Profession</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>Supports 7 languages: English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>	
CPU	Intel® CoreTM i3 2 GHz or higher	
Memory	<ul> <li>2 GB or more (for Windows<sup>®</sup> 7 [32-bit])</li> <li>4 GB or more (for Windows<sup>®</sup> 7 [64-bit], Window;<sup>®</sup> 8.1, and Windows<sup>®</sup> 10)</li> </ul>	
HDD	40 GB or more of free space	
Displayed items	1024 × 768 or higher resolution	
Interfaces	Ethernet port (for getting access to the internet using LAN) or a modem (for getting access to the internet via landline)     Up to 6 USB ports     (Only required for a server computer working as a VRF controller)     Maximum of 2 USB ports are required to connect to a White-USB-key/WibuKey     Up to 4 USB ports required to connect to an Echelon® U10 USB network interface     * Maximum number of required USB ports depends on the applicable system     configuration.	<ul> <li>Ethernet port (for getting access to the internet using LAN) or a modem (for getting access to the internet via landline)</li> <li>Up to 6 USB ports</li> <li>(Only required for a server computer working as a VRF controller)</li> <li>Maximum of 4 USB ports are required to connect to a White-USB-key/WibuKey</li> <li>1 USB port is required for an Ec; : helon<sup>®</sup> U10 USB Network interface</li> <li>* The maximum number of required USB ports depends on the applicable system configuration.</li> </ul>
Graphic accelerator	Microsoft® DirectX® 9.0c compatible	
Software	Adobe® Acrobat Reader® 9.0 or later	

• Echelon® U10 USB Network interface - TP/FT-10 Channel (Model name: 75010R) (Required for each VRF Network) <PACKING LIST>

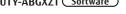
### Option System co; n System controller Energy manager Lite Model name UTY-APGXZ1 UTY-PEGXZ1 UTY-ALGXZ White-USB-key

\*1: Software protection key to be inserted in a USB slot running System controller or System controller Lite. System controller or Syst m controller Lite may only run on a PC with a WHITE-USB-KEY. However, a WHITE-USB-KEY is not required for remote VRF explorer software.

	System controller Lite
ession	al (32-bit or 64-bit) SP1
4-bit) olish	
ting	•Ethernet port (for getting access to the internet using LAN) or a m

	For System controller Lite								
roller	Option								
Ionei	Remote access	Electricity charge apportionment	Energy saving	Centralized control					
<u>7</u> 1	UTY-PLGXR2	UTY-PLGXA2	UTY-PLGXE2	UTY-PLGXX2					
	1	1	1	1					

# BACnet<sup>®</sup> gateway



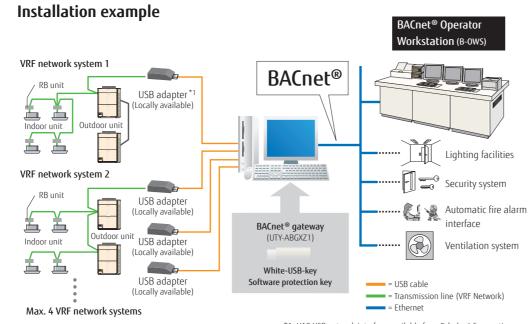
100

White-USB-key

(Software Protection Key)

ΒĪ

- 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<sup>®</sup> 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<sup>®</sup> 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.

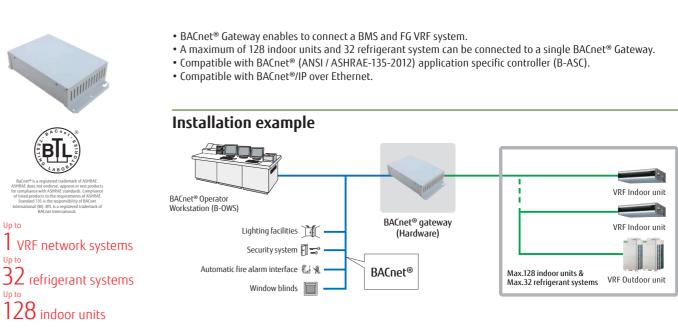


\*1: U10 USB network interface available from Echelon® Corporation.

### Specifications

	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	<ul> <li>2 GB or more (for Windows<sup>®</sup> 7 [32-bit])</li> <li>4 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1, and Windows<sup>®</sup> 10)</li> </ul>
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	<ul> <li>Ethernet port (for getting access to the Internet using LAN)</li> <li>USB ports (Maximum of 5 ports)</li> <li>1 USB port is required for WHITE-USB-KEY!WibuKey connection</li> <li>Maximum of 4 USB ports are required for Echelon™ U10 USB Network Interface</li> <li>* Maximum number of required USB ports depends on the applicable system configurations.</li> </ul>
Software	Adobe® Reader™ 9.0 or later
•Echelon™ U10 USB Ne	twork Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)
<packing list=""></packing>	
Name and chane	Quantity Application

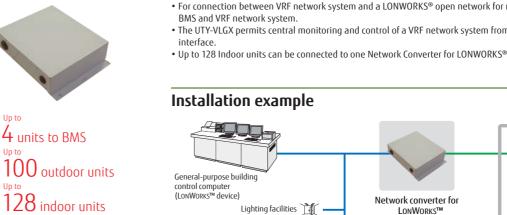
Name and shape	Quantity	Application
WHITE-USB-KEY	1	Includes the software and manuals, license for BACnet™ Gateway.



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

BACnet<sup>®</sup> gateway

# Network converter for LONWORKS<sup>TM</sup> UTY-VLGX



control computer (LONWORKS<sup>™</sup> device) Lighting facilities Security system 🗐 🛫 Automatic fire alarm interface 🖏 🐒 Window blinds

# Specifications

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		

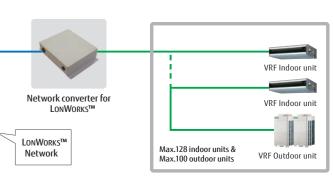
4 VRF network systems

Up to

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

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

• The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS®



# 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<sup>®</sup> convertor for VRF

W

mm

g

**MODBUS®** Interface

UTY-VMGX (Hardware)



Specifications Model na

Dimensions (H x W x D)

Power Supply

Input power

UTY-VKGX

Up to

000

1 indoor unit

IntesisBox®

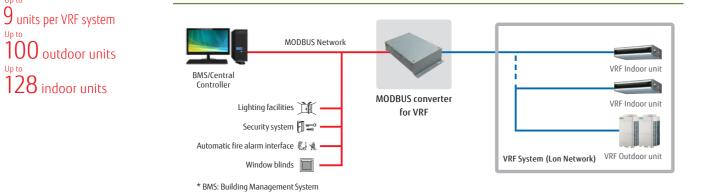
A 8

Weight

The MODOBUS Converter 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 Converter

• The MODBUS Converter permits central monitoring and control of air conditioners from BMS or Central Controller.



UTY-VMGX

220-240V 50/60Hz

Max. 2

54 × 260 × 150

1,100





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





Specifications		
Model name		
Power Supply		
Input power	W	
Dimensions (H x W x D)	mm	
Weight	g	

**KNX®** Interface FJ-RC-KNX-1i



Up to

1 indoor unit

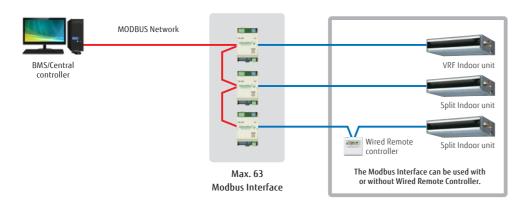
# The KNX Interface allows a complete integration of air conditioners with KNX Network systems.

• Simple installation due to small and compact size. • No separate external power supply required (just KNX bus power).



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.

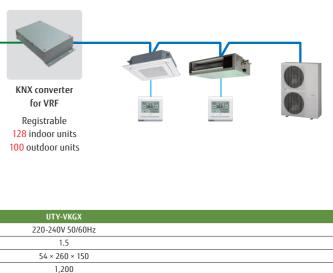


### Specifications

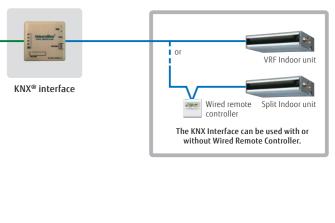
specifications		
Model name		FJ-RC-MBS-1
Dimensions (H x W x D)	mm	93 × 53 × 58
Weight	g	85

Specifications	
Model name	
Dimensions (H x W x D)	mm
Weight	g

• 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.



• Can be used for single indoor units and group controlled (up to 16) indoor units



FJ-RC-KNX-1i	
70 × 70 × 28	
70	

# Wireless LAN Adapter

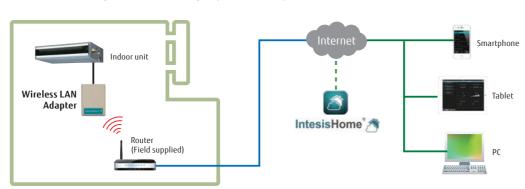
FJ-RC-WIFI-1





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





# **Basic control**

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



# UTY-VTGX DC power supply type

Network converter

UTY-VTGX / UTY-VTGXV



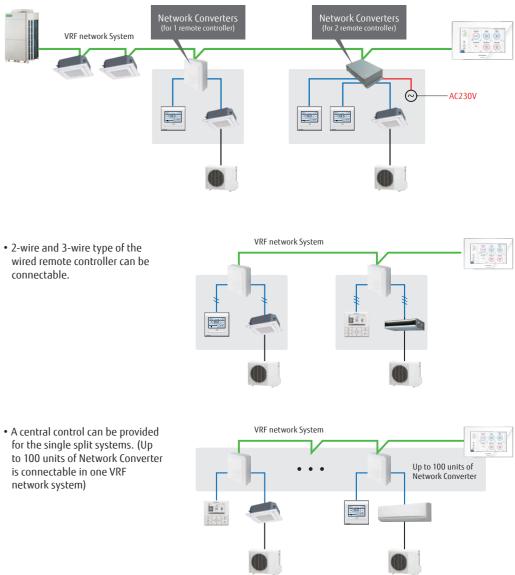
Up to

Up to

Up t

- Compact and light weight design
- Connectable to both types of 2-wire and 3-wire remote controllers

# Installation example



wired remote controller can be connectable.

# **Notifications and History**

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

• History (future release)

# 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

# Specifications

Model name		UTY-VTGX		UTY-VTGXV
Power Supply		polar 3-wire DC12V	non-polar 2-wire DC12V	220-240V 50/60Hz, Single phase
Input power	W	Max. 1.2		Max. 3
Dimensions (H x W x D)	mm	140 × 117 × 43		54 × 260 × 150
Weight	g	250		1,100

### Specifications FJ-RC-WIFI-Dimensions (H x W x D) mm 108 × 70 × 28 80 Weight g

# Compact remote controller provides access to basic functions

• The network converters are required when connecting single split system to VRF network system.

# • 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.

# **OGENEROL** 115

# **External switch controller** 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.
- The set temperature can be specified at two points for cooling and heating individually (4 points).

# 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.

Cooling/Dry	+2°C *Max. 30°C	SAVE!	AUTO RESTART
Set temp.	· 2 C Wax 30 C		
Heating			
Set temp.	-4°C *Max. 16℃	<b>V</b>	
Normal o	peration	Saving operation	Normal operation

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

1 group

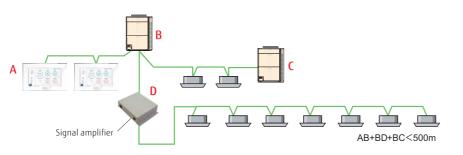


• Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.

- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,

(1) When the total wiring length of the transmission line exceeds 500m. (2) When the total number of units on the transmission line exceeds 64.

# Installation example



### Specifications

Model name		UTY-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			

### Specifications

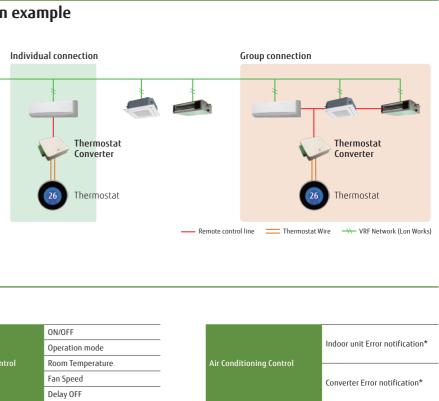
specifications		
Model name		UTY-TTRXZ1
Max. Connectable Indoor Unit		16
Input power (Max.)	W	0.6
Dimensions (H x W x D)	mm	27 × 86.7 × 86.7
Weight	g	220

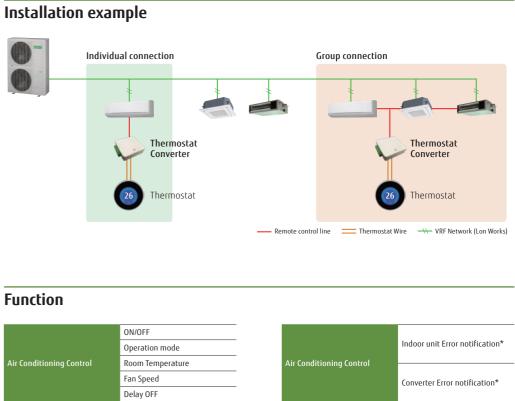


UTY-TTRXZ1

**Thermostat Converter** 

16 indoor unit





# Control air conditioner using third party thermostat

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

\*These function are displayed on the converter's PCB board.

# VENTILATION

# Outdoor-air Processing Unit range

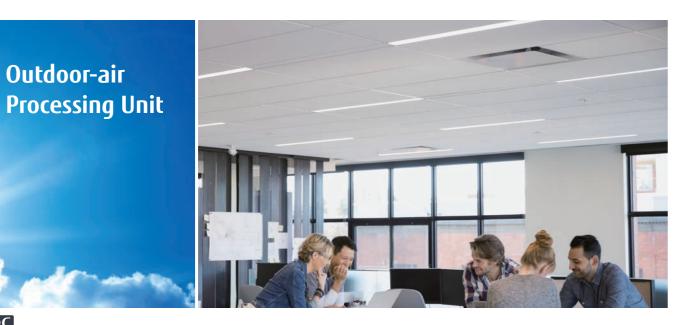
Airflow rate (m <sup>3</sup> /h)	1080	1680	2100
Model code	054	072	096
Outdoor-air Processing Unit	ARXH054GTAH	ARXH072GTAH	ARXH096GTAH

DX Kit for Air Handling Unit or Fresh Air Handling Unit application

Cimmin Commence

# Effective heat exchange and simultaneous fresh air ventilation

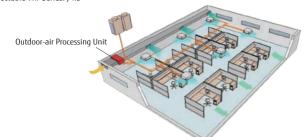
High Efficiency and low noise levels are achieved by using a highly efficient heat exchange process. A comfortable air conditioned space is achieved by conveniently selecting whether to use heat exchange or normal ventilation setting, according to the requirements of the conditioned space.

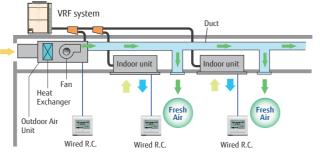


# One VRF system can provide air conditioning and air supply at the same time.

Outdoor-air Processing 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 Processing Unit connection capacity 30% or less of the outdoor unit capacity.

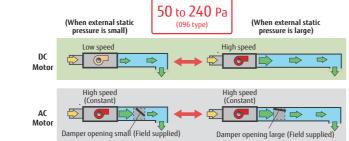
# High energy savings and flexible duct design by using DC motor

• 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



### Model: ARXH054GTAH / ARXH072GTAH / ARXH096GTAH



ARXH054

# 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	
Capacity	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	w	179	292	370
Airflow rate m3/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	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
Operating	Cooling	0CDD	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].

### Dimensions (Unit: mm)

# Model: ARXH054 Model: ARXH072 Side view (L) Side view (L) Top view Side view (R) Top view (Drain hose) (Drain hose) Front view Front view

120 **OGENEROL** 

### **Central Controller** 9 <u>0</u> 0 ō ē Touch Panel Wired System Controller ote Controlle Controller System Controller Lite (Touch Panel) (Software)

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

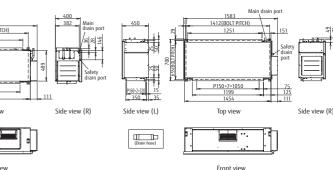


ARXH072



ARXH096



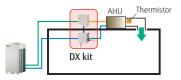


# Ventilation

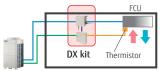


DC FAN

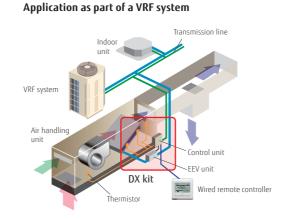
# Multiple temperature sensors optimally control the air handling unit and fan coil unit.



When connected to an Air handling unit, the temperature of supply air is controlled by a discharge air sensor.



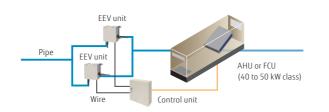
### When connected to a fan coil unit, the room temperature is controlled by the discharge air sensor



# Supports a wide range of capacity classes

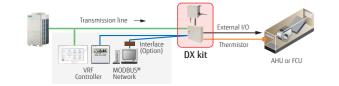
• Two EEV units can be connected in parallel to large-capacity units of up to 20 HP (50 kW). (UTP-LX180A separation tube required)

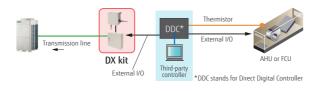
• Connectable capacity range: 5 kW to 50 kW



# A variety of controls to match the application

• Central control using our VRF controllers or central management controllers





# Summary of functions Inputs ON/OFF • Setting temperature Capacity demand • Heating / Cooling operation mode Fault information Installation requirements • 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 indoor units : 30 % or less of the outdoor unit capacity • Max. wiring length from control unit : 10 m • Max. piping length between EEV unit and indoor unit : 5 m • Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space. [For 2EEV units connection (option)] • Separation Tube : UTP-LX180A Control unit: UTY-VDGX EEV unit: UTP-VX30A/UTP-VX60A/UTP-VX90A



# Specifications

<u> </u>												
EEV unit				UTP-VX30A		UTP-VX60A		UTP-VX90A		UTP-VX90A×2		
Power source		V/Ø/Hz					230/	1/50				
Connectable cap	pacity class	kW	5.0	5.0 6.3 8.0			12.5	14.0	20.0	25.0	40.0	50.0
Generality	Cooling	kW	5.6 (5.1-5.9)	6.3 (6.0-7.1)	8.0 (7.2-9.0)	10.0 (9.1-11.1)	12.5 (11.2-13.2)	14.0 (13.3-18.0)	22.4 (18.1-23.7)	25.0 (23.8-28.0)	40.0 (28.1-44.7)	50.4 (44.8-50.4)
Capacity	Heating	KVV	6.3 (5.7-6.7)	7.1 (6.8-8.0)	9.0 (8.1-10.0)	11.2 (10.1-12.4)	14.0 (12.5-15.0)	16.0 (15.1-20.0)	25.0 (20.1-26.5)	28.0 (26.6-31.5)	45.0 (31.6-49.9)	56.5 (50.0-56.5)
Airflow Rate(Rel	ference value)	m <sup>3</sup> /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					(160 × 22	0 × 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].

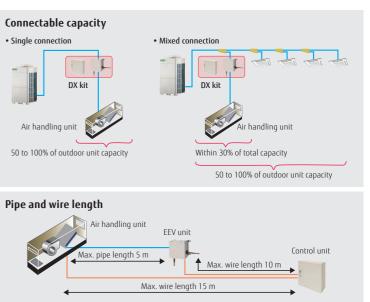




- ON/OFF indication
- Fan ON/OFF indication
- Thermo ON/OFF indication
- Defrost indication
- Fault indication

# **Modbus Control**

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





# **VRF OPTION**

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





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

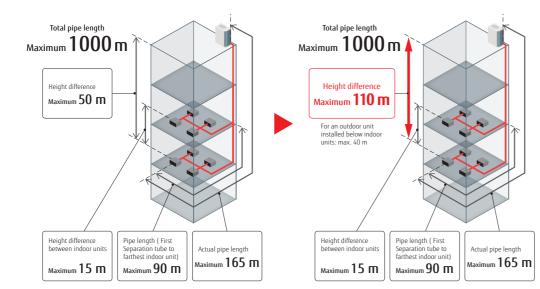
Various kinds of optional parts are provided such as controllers, adaptors and converters to meet the needs of every user.

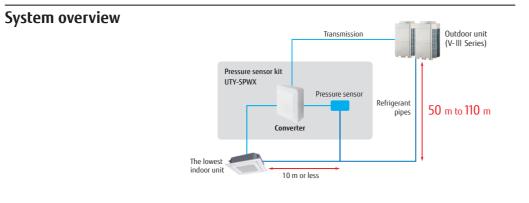
# Pressure sensor kit

# **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.)





Pressure sensor kit	Pressure sensor kit (Converter)	Refrigerant pressure sensor	Joint pipe
		<u></u>	

# Specifications

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

# Auto louver grille kit utd-gxta-w/utd-gxtb-w/utd-gxtc-w

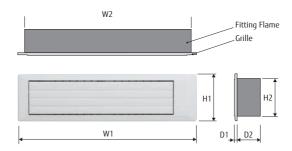


The optional clean-looking flat Auto louver grille kit blends into any interior and provides a comfortable airflow.

# **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.

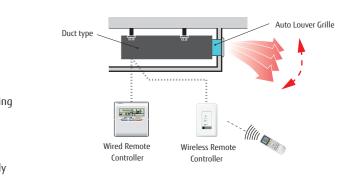
# Dimensions



Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W		
Applicable Indoor Unit			ARGD07/09/12/14GATH ARGK07/09/12/14GCLH ARGK07/09/12/14GALH	ARGD18GATH ARGK18GCLH ARGK18GALH	ARGD24GATH ARGK24GCLH ARGK24GALH		
Power source				Connecting with Control box of indoor unit			
Fixing of Auto	Louver Grille			Screw fixing to Flange or Square Duct			
Extension Squa	are Duct Limit		1.0m (Max. duct length between indoor unit and Grille)				
Dimensions (H × W × D) mm			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.				
	Carlina	°C		18 to 32			
operating	Cooling	% RH		80% or less			
range	Heating	°C	16 to 30				

\*: The Auto Louver Grille Kit can also be installed to ARGD07/09/12/14/18/24GATH revision code B models. Please refer to the Design & Technical manual for "revision code" details.





Uni	t:	mm

					U	mit. mim
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				

# **CONTROL SYSTEM LIST**

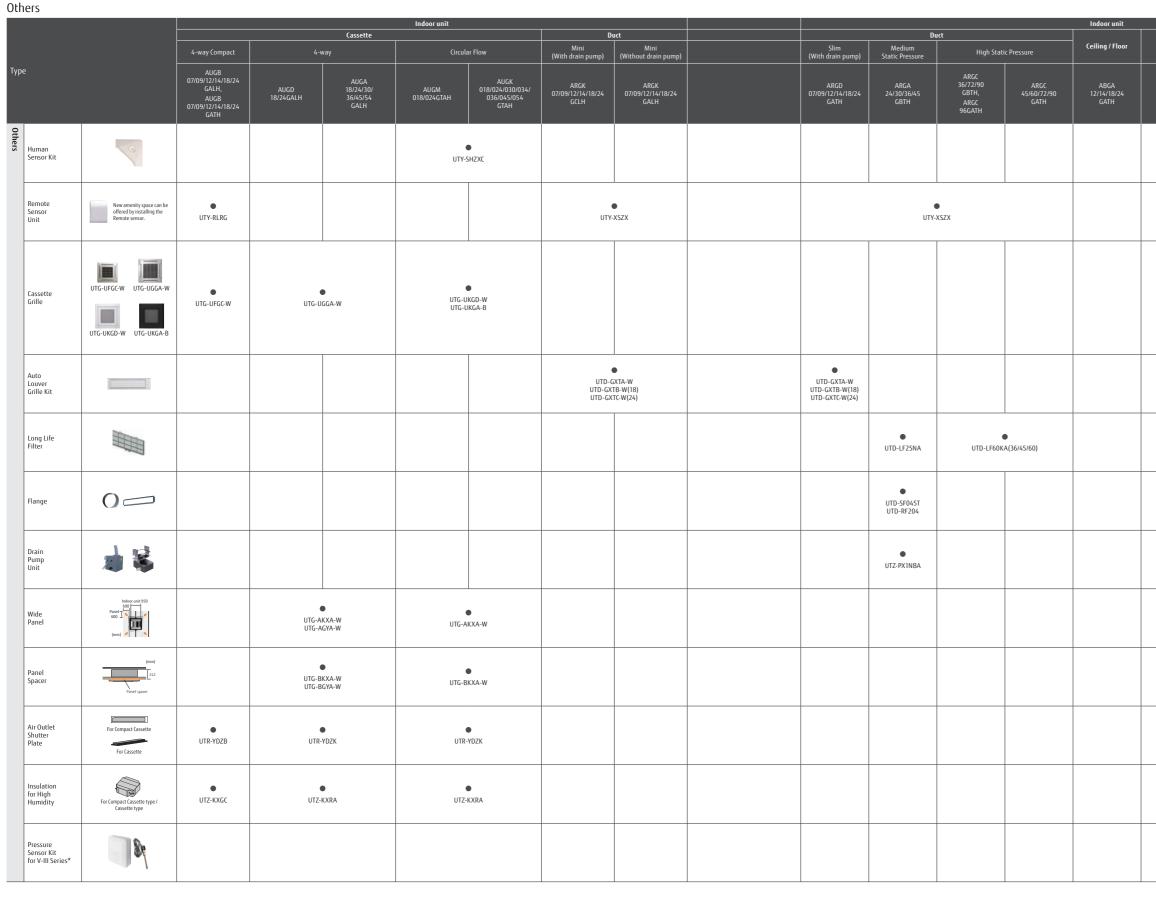
Controllers / Interface

ontroners / m				Indoor unit				Indoor un
			Cassette		Duct	ct	Duct	Ceiling / Fl
<sup>-</sup> уре		4-way Compact AUGB 07/09/12/14/18/24 GALH, AUGB 07/09/12/14/18/24	4-way AUGD AUGA 18/24/30/ 18/24GALH 36/45/54 GALH	Circular Flow AUGM 018/024/030/ 018/024GTAH 018/024GTAH	/034/ ARUN ARUN	Slim Medium (With drain pump) Static Press ARGD ARGA 07/09/12/14/18/24 24/30/36// GATH GBTH	ARGC 36/72/90 ARGC 5 GBTH, 45/60/72/90 ARGC GATH	ABHA 12/14/18/2 GATH
Controllers	( - <u></u>	GATH		UTY-RVRG			96GATH	UTY-RVR0
Wired Remote Controller				UTY-RNRGZ5				UTY-RNRGZ
	28.5			• UTY-RLRG				UTY-RLRG
Compact Wired Remote Controller				• UTY-RCRGZ1K				• UTY-RCRGZ1, UTY-
Simple Remote Controller	2-wire type		UTY-RSR	G, UTY-RHRG, UTY-RSKG, UTY-RHKG			UT	• Y-RSRG, UTY-RHRG, UTY-
Wireless Remote Controller				UTY-LNHGU				UTY-LNHG
Central Remote Controller				UTY-DCGGZ3				UTY-DCGGZ
System Controller, System Controller Lite	-			UTY-APGXZ1, UTY-ALGXZ1				UTY-APGXZ1, UTY-
IR Receiver Unit			UTY-LRHGB1	UTY-LBHXD	UTB-YWC		UTB-YWC	
BACnet Gateway				UTY-ABGXZ1, UTY-VBGX				• UTY-ABGXZ1, UT
Network Converter for LONWORKS				UTY-VLGX				UTY-VLGX
MODBUS Converter				UTY-VMGX				UTY-VMGX
MODBUS Interface	a compared to the second se		FJ-RC-MBS-1		FJ-RC-MBS-1	FJ-RC-MBS-1	FJ-RC-MBS-1 (ARXC45/60/72/90/96GATH only)	
KNX Convertor				UTY-VKGX				UTY-VKGX
KNX Interface			FJ-RC-KNX-1i		FJ-RC-KNX-1i	FJ-RC-KNX-1i	FJ-RC-KNX-1i (ARXC45/60/72/90/96GATH only)	
Wireless LAN Interface			FJ-RC-WIFI-1		FJ-RC-WIFI-1	FJ-RC-WIFI-1	FJ-RC-WIFI-1 (ARXC45/60/72/90/96GATH only)	
External Switch Controller				UTY-TERX				UTY-TERX
Network Converter for single split	DC Power Supply Type			UTY-VTGX, UTY-VTGXV				UTY-VTGX, UTY-
Thermostat Converter				• UTY-TTRXZ1				UTY-TTRXZ

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זווונ				
Floor	Ceiling		Wall Mounted	
	y	-	EEV external	-
A 3/24 I	ABGA 30/36/45/54 GATH	ASGA 07/09/12/14 GACH, ASGA 07/09/12/14 GATH	ASGE 07/09/12/14 GACH	ASGA 18/24/30 GACH, ASGA 18/24/30 GATH
RG				
GZ5				
RG				
'Y-RCRGZ1K				
TY-RSKG, U	TY-RHKG			
łgu				
GZ3				
TY-ALGXZ1				
UTY-VBGX				
GX				
IGX				
		● FJ-RC-MBS-1		
GX				
		● FJ-RC-KNX-1i		
		● FJ-RC-WIFI-1		
RX				
Y-VTGXV				
XZ1				

# **OPTIONAL PARTS LIST**



# AJ\*\_LN\*\*:AJH(G)\_LNTD, AJG\_LNLC

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				Outdoor unit
C-:!!:-		Wall Mounted		V-111
Ceiling		EEV external		Tropical
ABGA 30/36/45/54 GATH	ASGA 07/09/12/14 GACH, ASGA 07/09/12/14 GATH	ASGE 07/09/12/14 GACH	ASGA 18/24/30 GACH, ASGA 18/24/30 GATH	AJ* 072/090/108/ 126/144/162 LN**H
UTD-RF204				
UTR-DPB24T				
				• UTY-SPWX

# **OPTIONAL PARTS**

Controllers		
For Individual Control		
Wired remote controller (Design type) NEW UTY-RVRG	Wired Remote Controller (Touch Panel ) UTY-RNRGZ5	Wired Remote Controller UTY-RLRG
	Image: state	
Compact Wired Remote Controller UTY-RCRGZ1	Compact Wired Remote Controller UTY-RCRGZ1K	Simple Remote Controller UTY-RSRG With operation mode
Simple Remote Controller	Wireless Remote Controller	IR Receiver Unit
UTY-RHRG	UTY-LNHGU	UTB-YWC
Without operation mode		For All Duct types except Large Airflow Duct
IR Receiver Unit	IR Receiver Unit	Human Sensor Kit
UTY-LRHGB1	UTY-LBHXD	UTY-SHZXC
For Cassette type	For Circular Flow Cassette type	For Circular Flow Cassette type

For Centralized Control		
Central Remote Controller	System Controller Lite Software	System Controller Software
NEW UTY-DCGGZ3	UTY-ALGXZ1	UTY-APGXZ1
	WHITE-USB-KEY (Software Protection Key)	WHITE-USB-KEY (Software Protection Key)
	Option UTY-PLGXR2 UTY-PLGXA2	Option UTY-PEGXZ1
	UTY-PLGXE2 UTY-PLGXX2	

# Converters / Adaptors

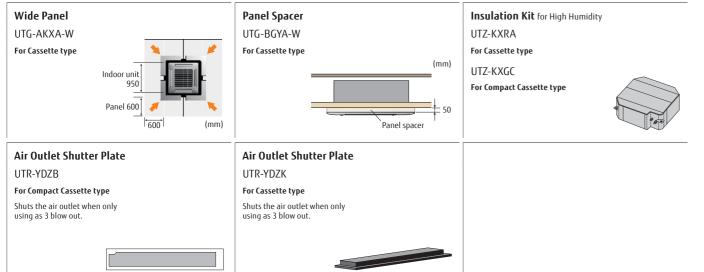
BACnet® Gateway Software UTY-ABGXZ1 WHITE-USB-KEY (Software Protection Key)	BACnet® Gateway Hardware	Network Converter for LonWorks® UTY-VLGX
MODBUS® Converter Hardware for VRF UTY-VMGX	MODBUS® Interface FJ-RC-MBS-1	KNX® Convertor for VRF Hardware UTY-VKGX
<b>KNX® Interface</b> FJ-RC-KNX-1i	Wireless LAN Interface FJ-RC-WIFI-1	Network Converter for single split UTY-VTGX DC power supply type
Network Converter for single split UTY-VTGXV AC power supply type	Network Converter for Group Remote Controller UTY-VGGXZ1	External Switch Controller UTY-TERX
<b>Signal Amplifier</b> UTY-VSGXZ1	Thermostat Converter UTY-TTRXZ1	Pressure Sensor Kit for V-III tropical Series* UTY-SPWX

# **OPTIONAL PARTS**



# Others

# For Cassette type



# Others For Duct type Flange (Round) Flange (Square) UTD-SF045T UTD-RF204 For Medium Static Pressure Duct type / Ceiling type For Medium Static Pressure Duck Long-Life Filter Auto Louver Grille Kit UTD-LF25NA UTD-LF60KA UTD-GXTA-W (for ARGD07/09/12 UTD-GXTB-W (for ARGD18, ARGK1 UTD-GXTC-W (for ARGD24, ARGK2 For Medium Static Pressure Duct type For High Static Pressure Duct type For Slim Duct type / Mini Duct ty

Communication	system: External Connect K	it	
For Indoor unit			
UTY-XWZXZ7		UTY-XWZXZD	
UTY-XWZXZB		UTY-XWZXZE	
UTY-XWZXZC			
For Central Rem	ote Controller	For Touch Panel	Controlle
UTY-XWZXZ7		UTY-XWZXZA	
UTY-XWZXZ7 UTY-XWZXZ8		UTY-XWZXZA	

# For Ceiling type



	Remote Sensor Unit	
	UTY-XSZX	
t type	For All Duct type	
	New amenity space can be offered by installing the Remote sensor.	
	Drain Pump Unit	
2/14, ARGK07/09/12/14)	UTZ-PX1NBA	
K18) K24)	For Medium Static Pressure Duct	
уре		
		12 J

	For Outdoor unit	
	UTY-XWZXZ6	
	UTY-XWZXZ9	
	UTY-XWZXZF	
ler		

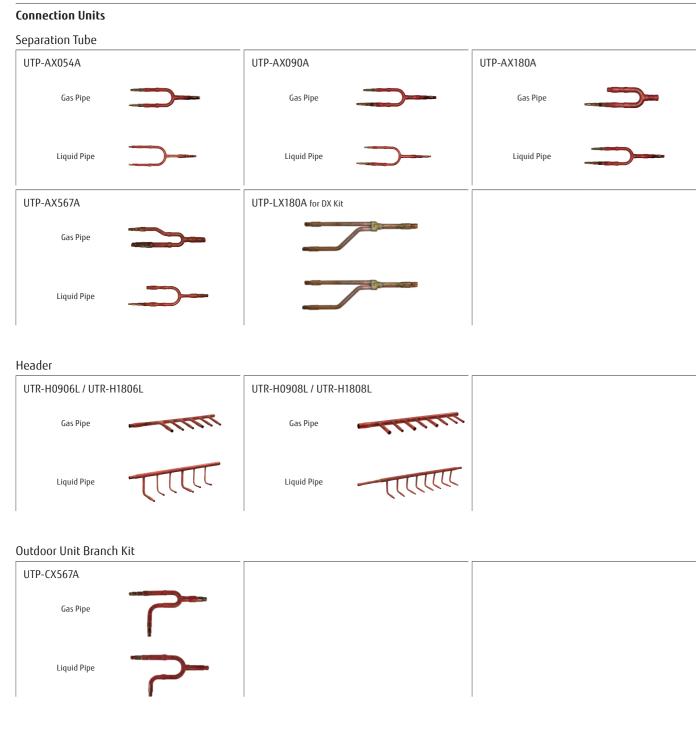
# **FUNCTION LIST**

		Indoor unit										Indoor unit				
				Cassette				1	Duct			Duct				Wall Moun
		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	High Static Pressure	Ceiling / Floor	Ceiling		EEV extern
Туре		AUGB 07/09/12/14/18/24 GALH, AUGB 07/09/12/14/18/24 GATH	AUGD 18/24GALH	AUGA 18/24/30/ 36/45/54 GALH	AUGM 018/024GTAH	AUGK 018/024/030/034/ 036/045/054 GTAH	ARGK 07/09/12/14/18/24 GCLH	ARGK 07/09/12/14/18/24 GALH	ARGD 07/09/12/14/18/24 GATH	ARGA 24/30/36/45 GBTH	ARCC 36/72/90 GBTH, ARCC 96GATH	ARGC 45/60/72/90 GATH	ABGA 12/14/18/24 GATH	ABGA 30/36/45/54 GATH	ASGA 07/09/12/14 GACH, ASGA 07/09/12/14 GATH	ASGE 07/09/12/1 GACH
Input	Operation / Stop					●UTY-> ○UTY->	KWZXZD XWZXZB							●UTY- ○UTY-	XWZXZD XWZXZB	
	All On / All Off															
	Group Stop															
Forced Stop						●UTY- ○UTY-	XWZXZD XWZXZB									
	Emergency Stop					●UTY-J OUTY-J	XWZXZD XWZXZB							●UTY- ○UTY-	XWZXZD XWZXZB	
	Forced Thermostat off					●UTY-J ○UTY-J	XWZXZE XWZXZ7							●UTY- OUTY-	XWZXZE XWZXZ7	
	Low Noise Mode Operation															
	Cooling/ Heating Priority															
	Outdoor Unit Operation Peak Control															
	Power Usage Information from Electricity Meter															
Output	Operation Status					●UTY-2	XWZXZC							●UTY-	XWZXZC	
	Error Status					●UTY-2	XWZXZC							●UTY-	XWZXZC	
	Indoor Unit Fun Operation Status					●UTY-2	XWZXZC							●UTY-	XWZXZC	
	Auxiliary Heater Output								●UTY-XWZXZC			●UTY-XWZXZC				
	Base Heater															

		Outdo	or unit	Controller
unted ernal	-	J-III Tropical	V-III Tropical	Central Remote Controller
2/14 1	ASGA 18/24/30 GACH, ASGA 18/24/30 GATH	AJH 040/045/054 LBTBHN, AJH 040/045/054 LETBHN	AJ* 072/090/108/ 126/144/162 LN**H	UTY-DCGGZ2
				●UTY-XWZXZ7 ○UTY-XWZXZ8
			●UTY-XWZXZ6	
			●UTY-XWZXZ6	●UTY-XWZXZ7 ○UTY-XWZXZ8
			●UTY-XWZXZ6	
			●UTY-XWZXZ6	
			●UTY-XWZXZF	
			outy-xwzxz6	outy-xwzxza
			OUTY-XWZXZ6	outy-xwzxza
			●UTY-XWZXZ9	
	AJ*LN**	: AJH(G)LNTD, AJG	LNLC •: Dry Contac	t O: Apply Voltage

# **∂gener∩l** 137

# **SEPARATION TUBE etc.**



EV Kit



# Specifications

Separation Tube						
Model name		UTP-AX054A		UTP-AX090A	UTP-AX180A	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 t	o 56.0	56.1 or more

# Header

Model name	3-6 Branches		UTR-H0906L	UTR-H1806L		
model frame	3-8 Branche	es	UTR-H0908L	UTR-H1808L		
Total cooling capacity o	f indoor unit k	kW	28.0 or less	28.1 to 56.0		
Model name	3-6 Branche	es	UTP-J0906A	UTP-J1806A		
modername	3-8 Branche	es	UTP-J0908A	UTP-J1808A		
Total cooling capacity o	f indoor unit k	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
Model name	3 outdoor units	2

# EV Kit

Model name	UTR-EV09XB	UTR-EV14XB
Application Model	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.

Support

HVAC system design support tool

Quick service & maintenance

Service tool

Web monitoring tool

Category					Infor	matio	on Ma	iteria	I					To	ol	
	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 (Room air conditioner, Packaged air conditioner, 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												•			•	•





# 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.

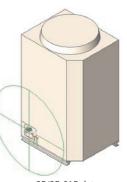


# Technical information

We provide equipment selection software that facilitates the design of air conditioning systems by providing performance data for the units and estimation for model selection.

### Features

- Design & Technical manuals
- Model selection & estimation
- Certification data
- 2D/3D CAD data



2D/3D CAD data

# Product information

Information on new models is provided in the form of documents and movies in a timely manner for release, readily downloadable from the private section of our website. Contact your Fujitsu General representative for access information

# Features

- Product news
- Brochures & manuals
- Promotional movies



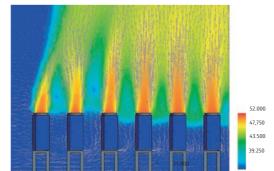
https://www.fujitsu-general.com/g-eu/support/downloads/vrf/

# Technical support

Technical support is offered at every stage, from design through to installation, to assist in optimizing air conditioning solutions.

### Features

- CFD simulation
- Guidelines
- Commissioning support

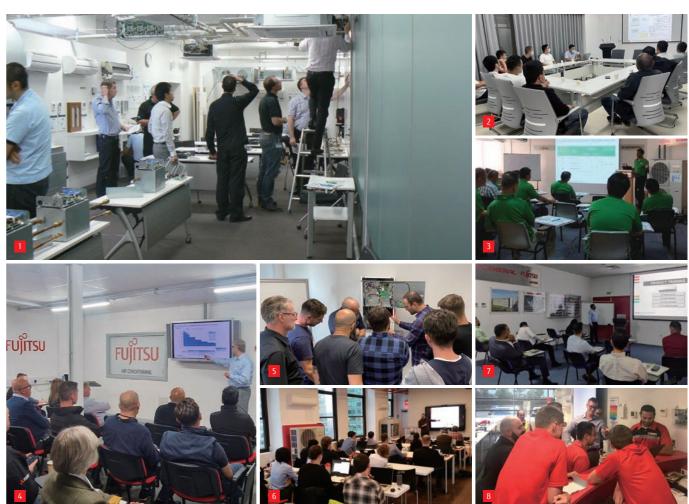


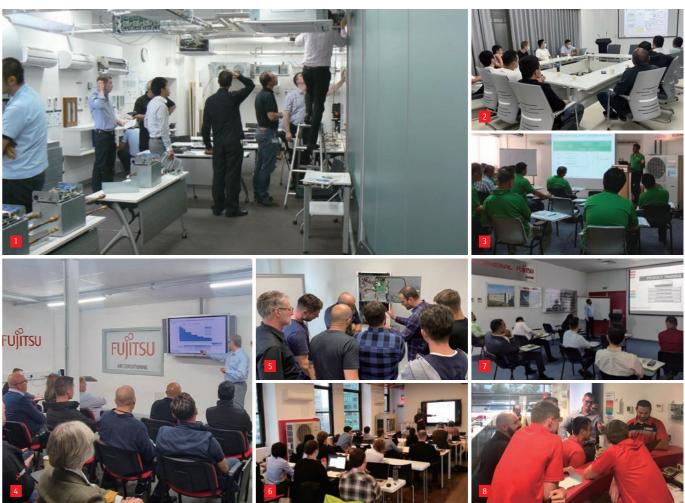
CFD simulation



Commissioning support



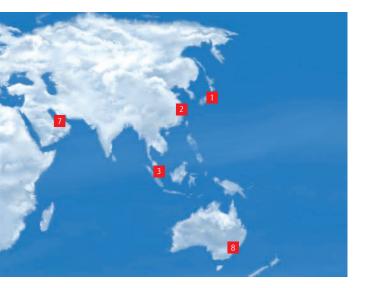




Fujitsu General regularly provides professional product, technical and service training at its training facilities worldwide. These research facilities also support the development of human resources with advanced technical skills.

# Features

- Designing VRF systems
- On-site training for control systems



1 Head office training center in Japan 2 Training center in China <sup>3</sup> Asia training center in Singapore 4 Europe training center in the United Kingdom <sup>5</sup> Europe training center in Germany <sup>6</sup> America training center in the United States 7 Middle East training center in the UAE 8 Oceania training center in Australia

# HVAC system design 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.

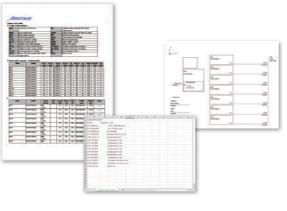


# **Design simulator**

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# Automatically create model selection information

- The required performance, type, and temperature conditions for each indoor unit are entered and then dragged and dropped onto the outdoor unit to automatically set each unit.
- Creates piping and wiring diagrams automatically to facilitate branching, grouping, and option settings.
- The additional refrigerant charging is automatically calculated when the pipe length is entered.
- Easy configuration of remote controller groups, central controller, and converters.
- The equipment list including the equipment information is created automatically.



# Outputs in the format that matches the application

You can export your project information in a number of industry standard file formats.

- Word format (rtf) (doc)
- Excel format (csv)
- Acrobat format (pdf)
- 2D CAD data (DXF)



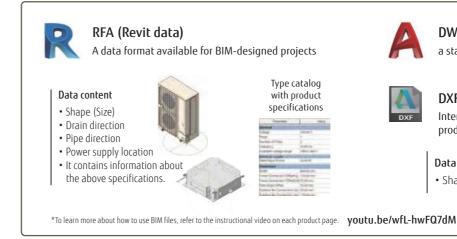
# Update your Design simulator

The database can be updated easily online with the AutoUpdate function using FTP.

# BIM Building information modeling

# BIM files of Fujitsu General's products are available on BIMobject®

BIM objects fo A 💺 A Fujitsu General is releasing BIM files of our products on the BIMobject® website A . BIMobject.com. 0 ... Outline of BIMobject® BIMobject<sup>®</sup> is a game changer for the construction industry, offering development, maintenance, and syndication of objects on the world's largest BIM platform. bearing the 0-About BIM files 0 === 5---• BIM files can be viewed in Autodesk Revit® 2018 version or later. • In each BIM file, the location of the connectors for the refrigerant and drain pipe is different. • Each BIM file includes several family types. • A catalog and specification sheet is available in Revit file format for each product. induct o the start of FUJITSU SPLIT ABYG24-30KRTA





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# DWG

a standard data format used for Autodesk products



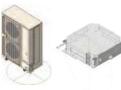
# DXF

Intermediate data commonly available in CAD products

# Data content

• Shape (Size





# 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.



# Easy maintenance & monitoring

# Designed for easy maintenance

The operating status of the air conditioner and detailed trouble conditions are displayed on the 7-segment indicator lamp on the outdoor unit printed circuit board (PCB) and on the screen of the remote controller.

Check the status of the unit quickly for a prompt response.

- Display the operation mode at the time.
- Discharge temperature and pressure
- Compressor operation status
- "Address/Type/Number" of the outdoor unit
- Error code

# Error diagnosis by Service tool

Connect Service tool to check the status details of units, from single split to VRF, on a computer screen. Check the errors quickly for prompt countermeasures.

- Operating status/control
- Monitoring operating conditions
- Monitoring sensor data
- Indicating trend graphs
- Error history
- Indicating refrigerant circuit diagrams (for VRF)

# Remote monitoring

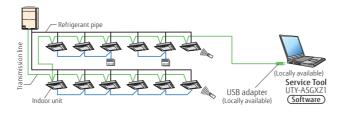
VRF system operating status and trouble status details can be monitored remotely at any time via the internet. Prompt coordination is available with service personnel.

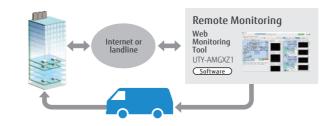




Unit n







# Mobile troubleshooting App for iOS and Android <sup>TM</sup> devices

We will release an App for troubleshooting tools for iPhone, iPod touch and other Apple devices, and Android products for Fujitsu General air conditioners (Room air conditioner/ Packaged air conditioners VRF and ATW, "AIRSTAGE Mobile", and R32 calculation of allowable refrigerant capacity)

Use Error Code Check, Troubleshooting, and Sensor Check to understand the status of your air conditioner.



# Service monitoring tool for Single split, Multi-split & Air to water



- It is not always easy to read the temperature sensor and know the status of the
- control components. So let the Service monitoring tool judge them. Visualizes protected operations
- Troubleshoots intermittent problems effectively
- Provides proof of normal operation to customers during periodical maintenance

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Actual operating conditions

Dimensions (H × W × D) (mm)	
Weight (g)	





• A quick overview of the temperature sensor readings and the electronic expansion valves (EEVs), fans, compressors and other control components

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**Operational histories** 

UTY-ASSX					
60 × 160 × 160					
500					

# Service tool UTY-ASGXZ1

# Extensive monitoring and analysis functions that make installation and maintenance easier

- The operation status of the system can be monitored and analyzed to detect any malfunctions.
- Data on the operation status of the system can be stored on a computer to allow for remote access.
- Up to 400 indoor units in a single VRF network system can be controlled and monitored for a large building or hotel.
- This software can be connected to any point of transmission line with a USB adapter (locally available).
- \* Saved data can be displayed offline. Note that the data saved by the following software applications cannot be displayed.
- UTR-YSTB/UTR-YSTC (Service tool)
- UTR-YMSA (Web monitoring tool)

# Automatic operation check for refrigeration cycles

Once installed, the Service tool automatically checks for refrigeration cycles. The self-diagnosis function determines whether each sensor value is normal, which reduces the need for manual checks. The result of a diagnosis can be provided in a report.





# These sensor values are checked automatically:

✓ the discharge temperature is normal, "OK" the super heat volume is normal, "OK'  $\checkmark$  the high pressure pipe value is normal, "OK"

the low pressure pipe value is normal, "OK And the values for other items will also be diagnosed.



# Remote technical support and maintenance

On-site check screen can be shared between on-site staff and a service technician in a remote location. When a service technician visits the site for troubleshooting, the system's operation status can be shared in real time with a remote service center for assistance. On-site staff can have an online chat with a remote service center to get further assistance.

# Trend charts

Previous-generation application could display only 3 sets of data from sensors. However, the current generation of the service tool displays multiple charts simultaneously so that refrigeration cycles can be monitored and checked in greater detail.





# **Computer 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			
Screen resolution	1366 × 768 pixels or higher			
Interface	USB port for U10 USB Network interface and software protection key			
Software	Internet Explorer® 11 or Microsoft Edge			

# Packing list

Name	Quantity	Application
White-USB-key (Software protection key)	1	Software protection key to be connected to a USB port on a Service tool-installed computer. This software runs only on a computer with WibuKey.
•Computer requirements		

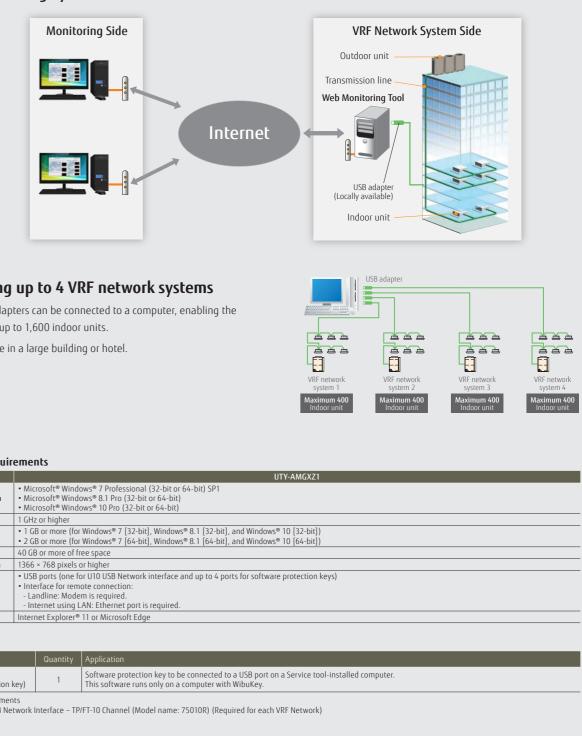
•Echelon® U10 USB Network Interface - TP/FT-10 Channel (Model namer: 75010R) (Required for each VRF Network)

# Web monitoring tool UTY-AMGXZ1

# Features

- Troubleshooting is performed by monitoring each air conditioning unit remotely during a periodical system check.
- An error notification is automatically transmitted to several locations via the internet\*1.
- Requires either a dedicated internet connection or landline to operate.
- mode.
- Can be viewed on the monitoring computer's Web browser without installing any special software.

# Web Monitoring System



# Supporting up to 4 VRF network systems

Up to 4 USB adapters can be connected to a computer, enabling the monitoring of up to 1,600 indoor units.

Suitable for use in a large building or hotel.

### **Computer requirements**

	UTU
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<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1 [32-bit], and Windows<sup>®</sup> 1</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1 [64-bit], and Windows<sup>®</sup> 1</li> </ul>
HDD	40 GB or more of free space
Screen resolution	1366 × 768 pixels or higher
Interface	USB ports (one for U10 USB Network interface and up to 4 ports for software p     Interface for remote connection:     Landline: Modem is required.     Internet using LAN: Ethernet port is required.
Software	Internet Explorer® 11 or Microsoft Edge

# Packing list

,				
Name	Quantity	Application		
White-USB-key (Software protection key)		Software protection key to be connected to a USB port on a S This software runs only on a computer with WibuKey.		
<i>c</i>				

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

• The occurrence of an error can be confirmed through an error alert and equipment status information obtained from a remote location. • Monitoring data can be downloaded in a remote location. These data can be accessed and displayed even when the service tool is in offline

\*1: Internet e-mail access required.

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