Fujitsu General (Thailand) Co., Ltd.

TÜV ISO 9001 01 100 075229 ISO 14001 01 104 9245

ISO 9001 Certification number: 01 100 075229
ISO 14001 Certification number: 01 104 9245

Fujitsu General (Shanghai) Co., Ltd.

TÜV CERT DIN EN ISO 9001 Certificate: 01 100 79269 | ISO 14001 BUREAU VERITAS Certification | UKAS

ISO 9001 Certification number: 01 100 79269
ISO 14001 Certification number: CNBJ312244-UK

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

CNAS MANAGEMENT SYSTEM | IAF

ISO 9001 Certification number: 15917Q20073RSM
ISO 14001 Certification number: 15918E20021RSM

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- For further details, please check with our authorised dealer.
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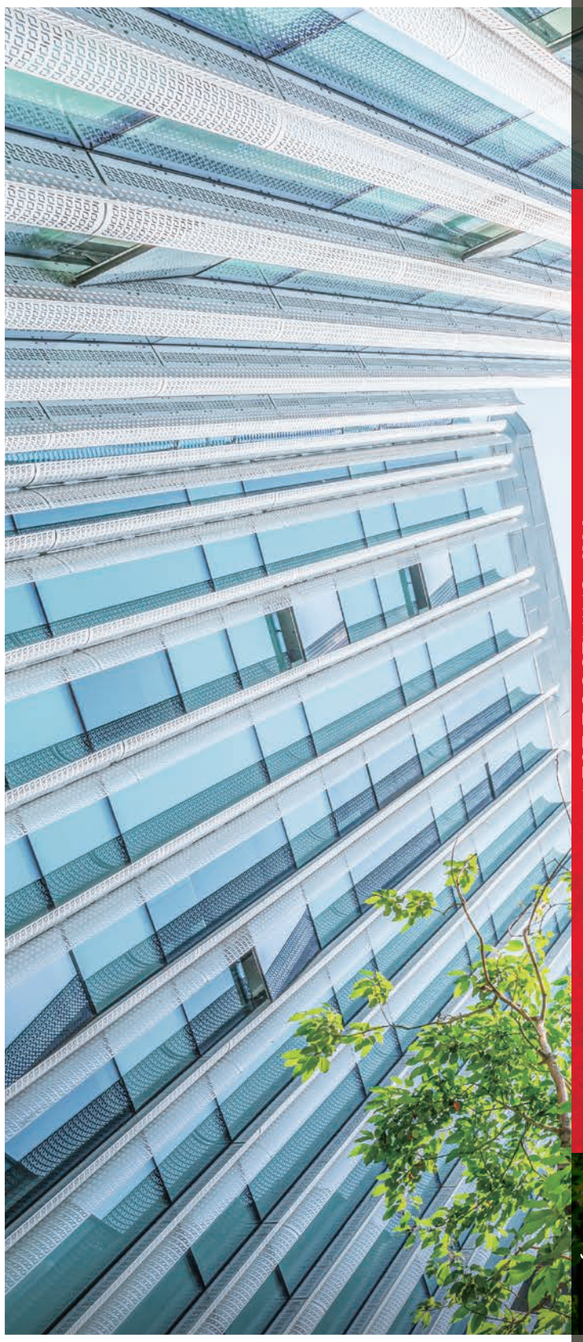


HEAT PUMP **VRF** CATALOGUE 2024 for **Saudi Arabia**

FUJITSU GENERAL LIMITED

GENERAL

HEAT PUMP
VRF CATALOGUE 2024

for **Saudi Arabia**

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.

CONTENTS

VRF V-III Tropical Series

VRF J-III Tropical Series

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 & Cooling

S

2007
8 to 42HP / Heat pump

VRF V

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

VRF V-II

2012
High efficiency and Compact design model
8 to 48HP / Heat Recovery

VRF VR-II

2013
Tropical spec model
Extensive lineup from 8HP to 42HP in 2HP increment / Heat pump

VRF V-II

2015
High efficiency and large capacity model.
Extensive lineup from 8HP to 54HP in 2HP increment / Heat pump

VRF V-III

2016
Tropical spec model
Extensive lineup from 8HP to 54HP in 2HP increment / Heat pump

VRF V-III

For Residential & Light Commercial Use

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

VRF J

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

VRF J-II

2014
High efficiency and compact design model
4HP to 6HP / Heat pump

VRF J-IIS

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

VRF J-III

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

VRF J-III

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

VRF J-IIIL

AIRSTAGE™ History

1936 Established as Yaou Shouten Ltd. - 2017

1936
Established as Yaou Shouten Ltd.

1971
Air conditioner exports to Middle East.

Certification Acquisition of
ISO14001

1998 : Fujitsu General (Shanghai) Co.,Ltd.
1999 : Fujitsu General (Thailand) co.,Ltd.
2002 : FGA (Thailand) Co.,Ltd.
2006 : Fujitsu General Central Air-conditioner (Wuxi) co.,Ltd.

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

Refrigerant R410A

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

RoHS COMPLIANT

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

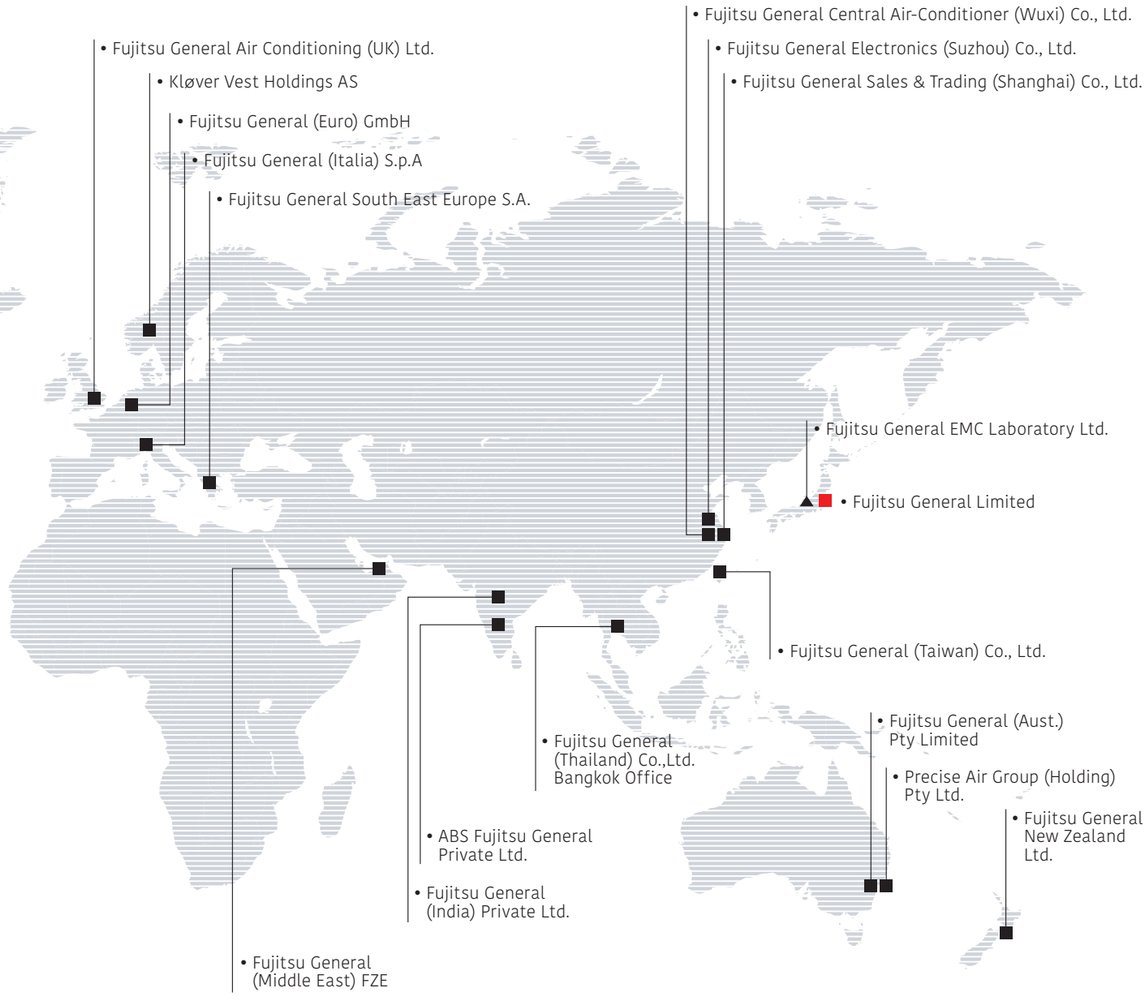
ALL INVERTER

WORLDWIDE LOCATIONS

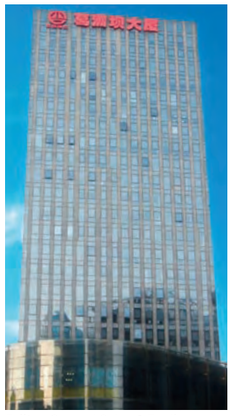
Under a system of five bases in Europe, the Middle East, Asia and Oceania, North and South America, and Japan, the company promotes Globalization from a worldwide perspective while emphasizing the actual conditions in each region.

JAPAN Head Office

Technology research building (Japan)



18 Overseas Sales Companies



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

Fujitsu General (Taiwan) Co., Ltd. (Taiwan)

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

Fujitsu General Electronics (Suzhou) Co., Ltd.

Fujitsu General South East Europe S.A. (Greece)

Fujitsu General (EURO) GmbH (Germany)

Fujitsu General Air Conditioning (UK) Ltd. (U.K.)

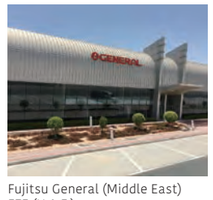
Fujitsu General (Italia) S.p.A (Italy)

Fujitsu General (India) Private Ltd. (India)

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

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

Fujitsu General New Zealand Ltd. (New Zealand)



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

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

ABS Fujitsu General Private Ltd. (India)

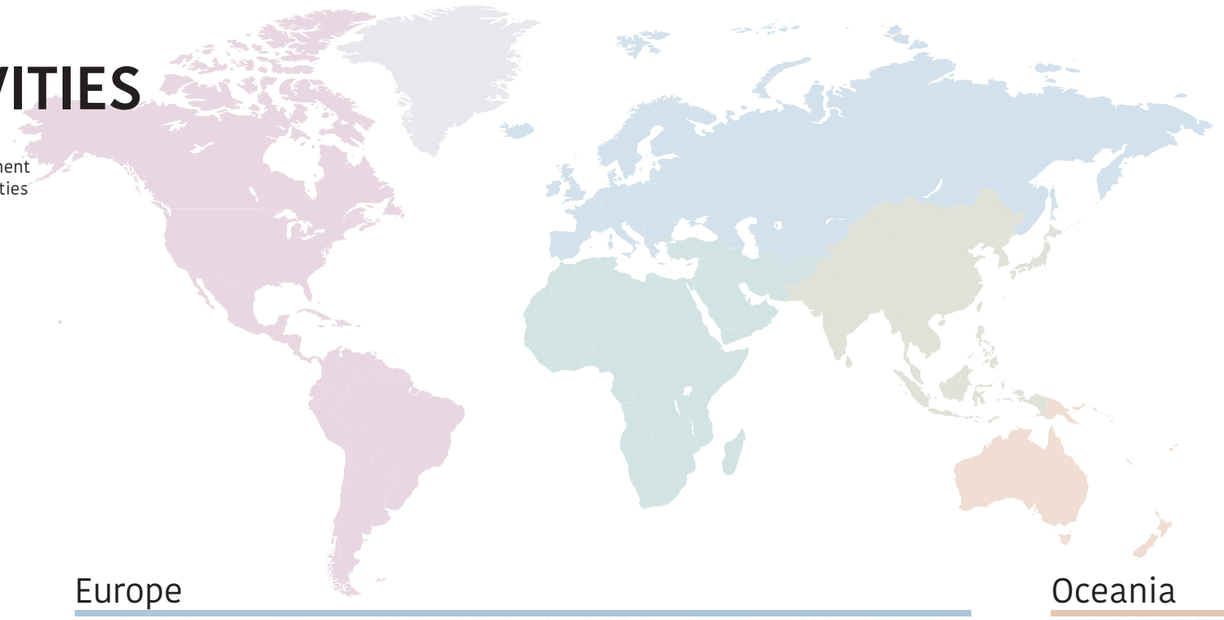
Fujitsu General Do Brasil Ltda. (Brasil)

Fujitsu General America, Inc. (U.S.A.)

Kløver Vest Holdings AS (Norway)

GLOBAL BUSINESS ACTIVITIES

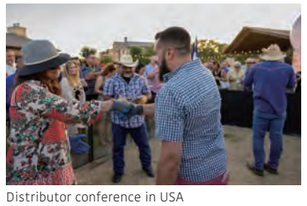
We have been recognized for our activities in advertising, human resource development and customer service, as well as for our community-based social contribution activities in each region, winning numerous awards and achieving a high level of customer satisfaction.



North and South Americas

AHR Expo

HVAC trade shows in Brazil

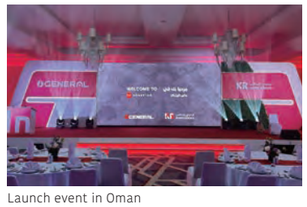

Distributor conference in USA

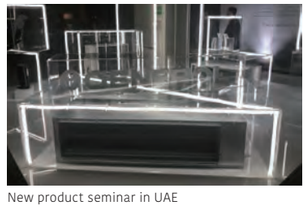

Call center

Middle East

Exhibition


Training in Kuwait


Launch event in Oman

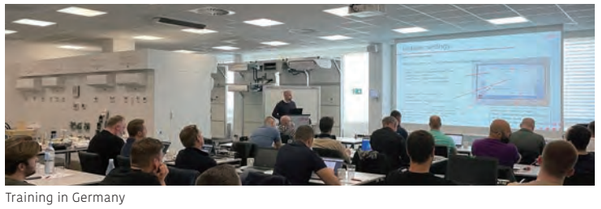

New product seminar in UAE

Europe


HVAC trade show in Germany


HVAC trade show in Germany


Training seminar in Italy


Training in Germany


Event in the United Kingdom

Oceania

HVAC trade show in Australia


Launch event in New Zealand

Launch event in New Zealand

Asia

Thanksgiving party in Taiwan


Exhibition in India


Opening ceremony in India

New product presentation seminar in Singapore

Service training in Vietnam

International authoritative design awards

The NEWS Dealer Design Awards


Gold Award (Category: HVAC & PLUMBING) in Reader's Choice Awards


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 of branding.

The iF Product Design Award is given annually by iF International Forum Design GmbH for industrial products from around the world.

The Plus X Award is the world's largest innovation award for technology, sports and lifestyle.

reddot winner 2020

A product design competition that has been held since 1955. Products that win the award are given the "Red Dot" seal, a sign of international recognition of quality.

One of the famous design award in the world. Designs are judged on innovation and aesthetics, as well 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.

Voted by Australians as the 'Most Trusted Brand – Air Conditioning 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.

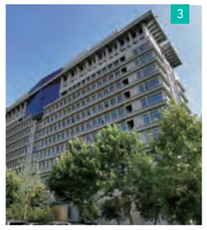
PROJECT REFERENCES

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.

1


2


3


4


5

6


7


8


9

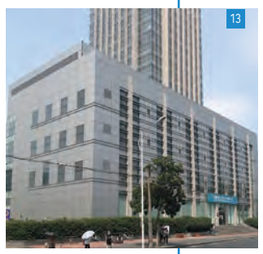
For Light commercial use

1 Shop in Europe
2 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


10

11


12


13


14


15


16


17

For Commercial use

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


18


19


20

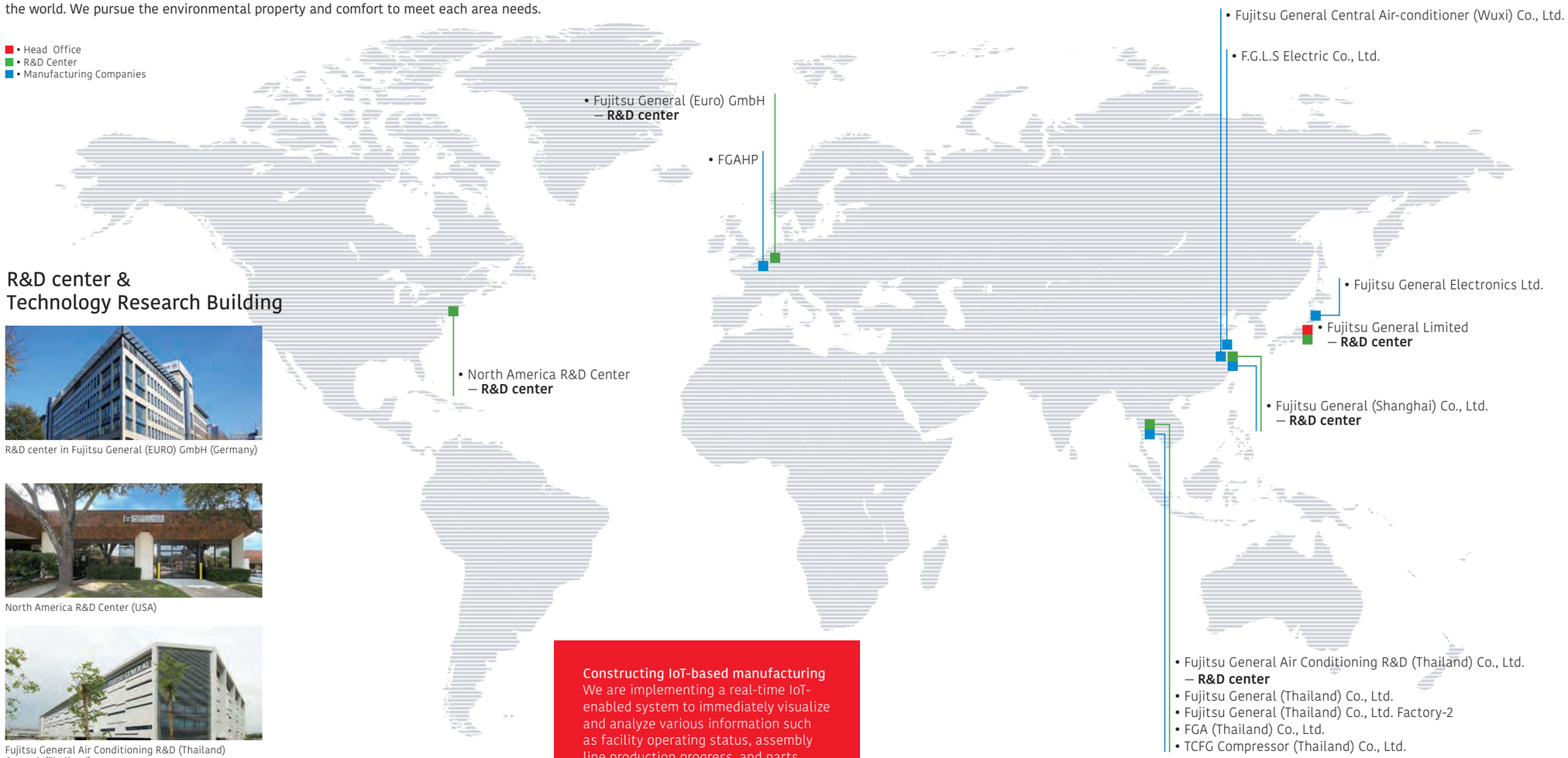

21

For Residential use

18 Villa in the Africa
19 Residence in Oceania
20 Residence in the United States
21 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.



R&D center & Technology Research Building

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

North America R&D Center (USA)

Fujitsu General Air Conditioning R&D (Thailand) Co., Ltd. (Thailand)


R&D center in Fujitsu General (Shanghai)


JAPAN Head office, R&D center and 60 m height difference testing tower (Japan)

Constructing IoT-based manufacturing
We are implementing a real-time IoT-enabled system to immediately visualize and analyze various information such as facility operating status, assembly line production progress, and parts inventory and transportation status. This will further enhance the accuracy of production and shipping forecasts in the Head Office and factory management departments. The system will also help improve activities by employees at production sites, with the aim of improving the efficiency of the production process, the efficiency of parts distribution operations, and the utilization rates of the facilities.

Technology research building
in Japan Head office

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)


Fujitsu General (Thailand) Co., Ltd. (Thailand) Factory-2


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


Fujitsu General Air Conditioning R&D (Thailand) Co., Ltd. (Thailand)


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


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

HIGH QUALITY DEVELOPMENT
& PRODUCTION FACILITIES

Advanced Research Facility and Equipment

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.

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.

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

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

Transportation & Handling

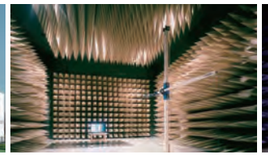
Compressibility testing

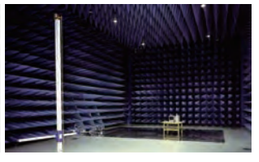
Vibration testing

Technology Research Building
in Japan Head Office

Testing Laboratory

Fujitsu General EMC Laboratory Limited

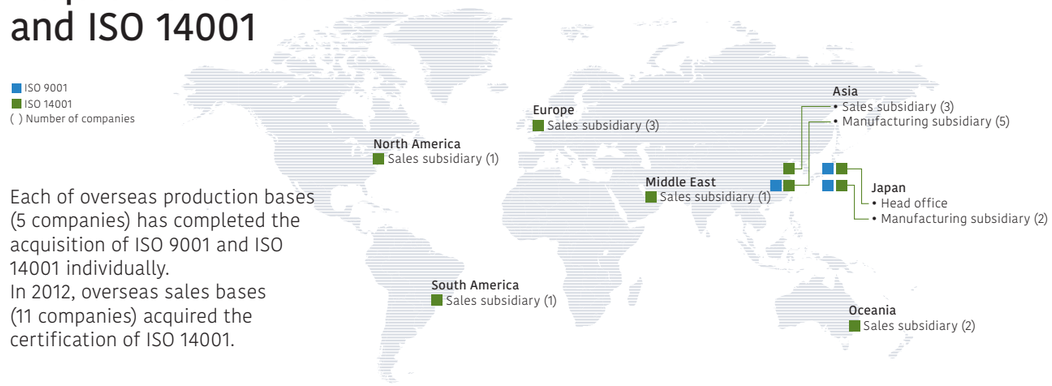




60 m Height Difference Testing Tower

Objective is to confirm oil circulation of compressor for reliability

Acquisition of ISO 9001 and ISO 14001



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

High Product Quality Assurance

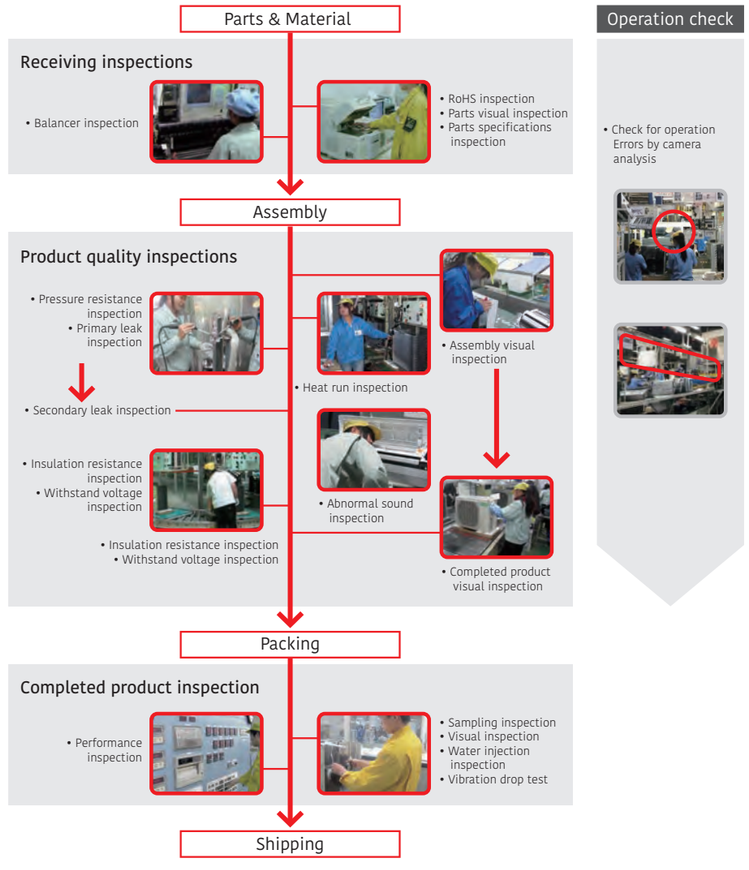
All Fujitsu General factories have acquired ISO 9001, and have built a quality control system common around the world. High quality products are offered to all over the world based on stringent quality inspections.

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.



OUR SOLUTION FOR ALL PROPERTIES

Fujitsu General provides the best solutions suitable for properties.

Solution Point

We provide Fujitsu General
total solutions
for the property unique needs.

Target Property

LIGHT COMMERCIAL

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

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

COMMERCIAL

For Large Building

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

Light Commercial

APARTMENT, VILLA

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

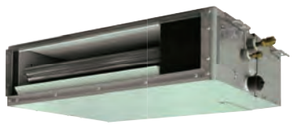
APARTMENT

Large space air conditioning in the dining and living room

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

VILLA

Large space air conditioning in a family room

High Static Pressure Duct

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

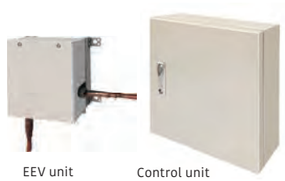
Fujitsu General provides perfect total air conditioning systems that take into account comfort, energy saving, external appearance, safety and easy installation for small low-rise hotels.

Large space air conditioning in the reception and lobby

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

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.



EEV unit

Control unit

System controller

Centralized control of air conditioning in shared spaces

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

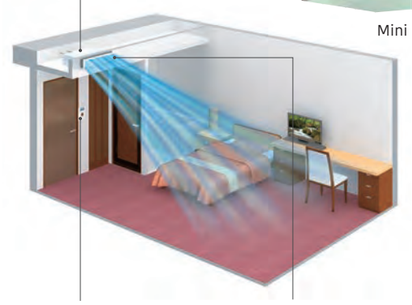
Simple Remote Controller with sophisticated design

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.

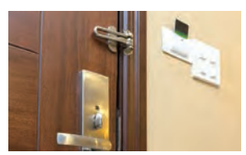
Guest room air conditioning with excellent comfort, energy saving and easy installation

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

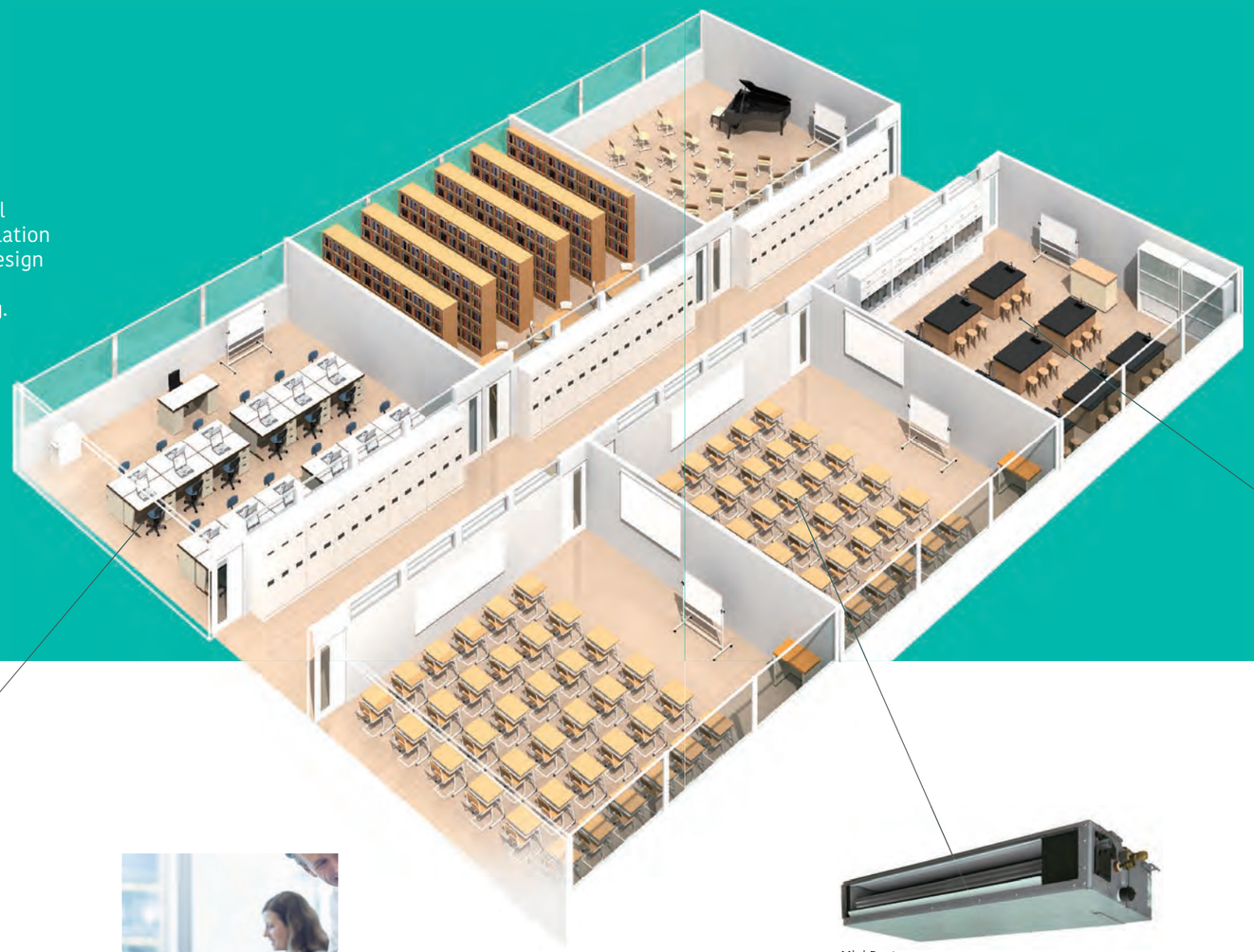
Comfortable airflow that switches up and down air directions
The Auto Louver Grille Kit achieves comfortable airflow by adjusting the air direction.

Auto Louver Grille Kit

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.



Cassette Circular Flow

NEW

Central Remote Controller UTY-DCGGZ3

LAN

PC

Wireless LAN

Router

Fixed IP, IP forwarding and open Port required

INTERNET

Tablet PC

Smartphone

iOS, Android and/or Windows

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

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

Mini Duct

Cassette Circular Flow

Wall Mounted

Various indoor units

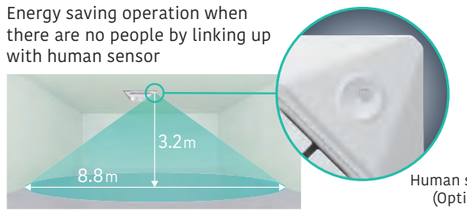
We have a lineup of indoor units that can also support complex applications – from normal classrooms to special classrooms and auditoriums. Air conditioners can be also added easily.

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

Energy saving operation when there are no people by linking up with human sensor



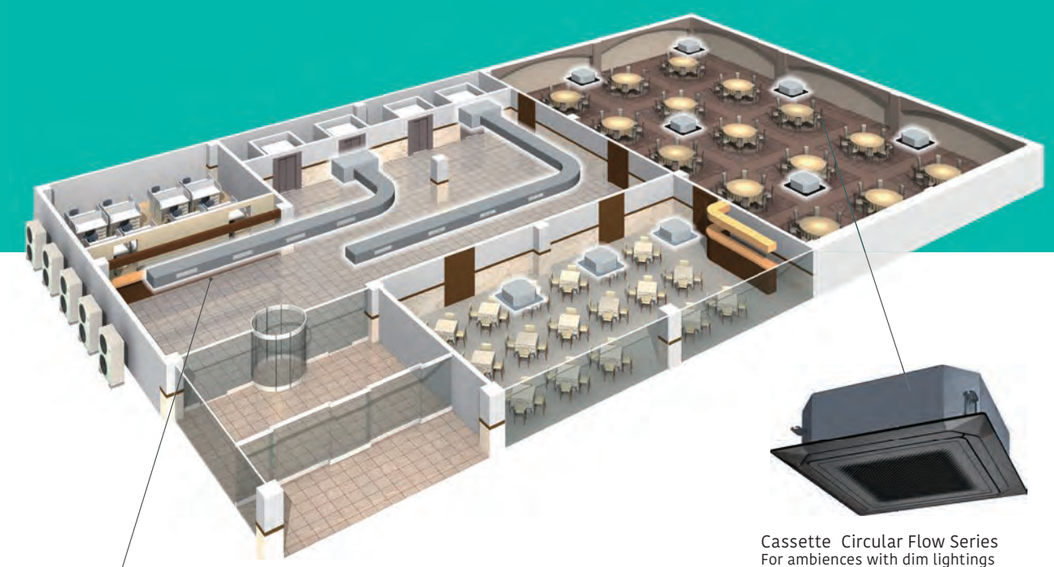
Human sensor (Option)

Light Commercial

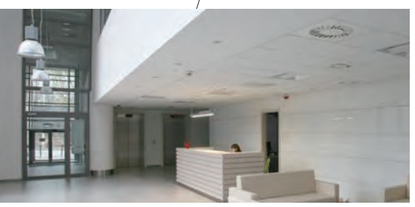
RESTAURANT, SHOPS

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

RESTAURANT



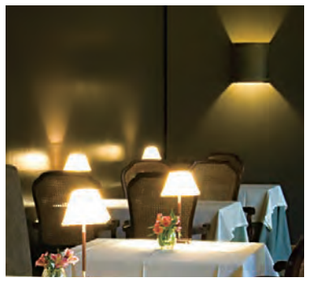
Cassette Circular Flow Series
For ambiences with dim lightings



Appropriate air conditioning in the atrium space

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

High Static Pressure Duct

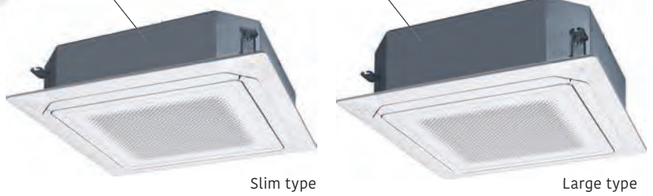


Color variations by two panels

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

Circular Flow Cassette



Slim type

Large type

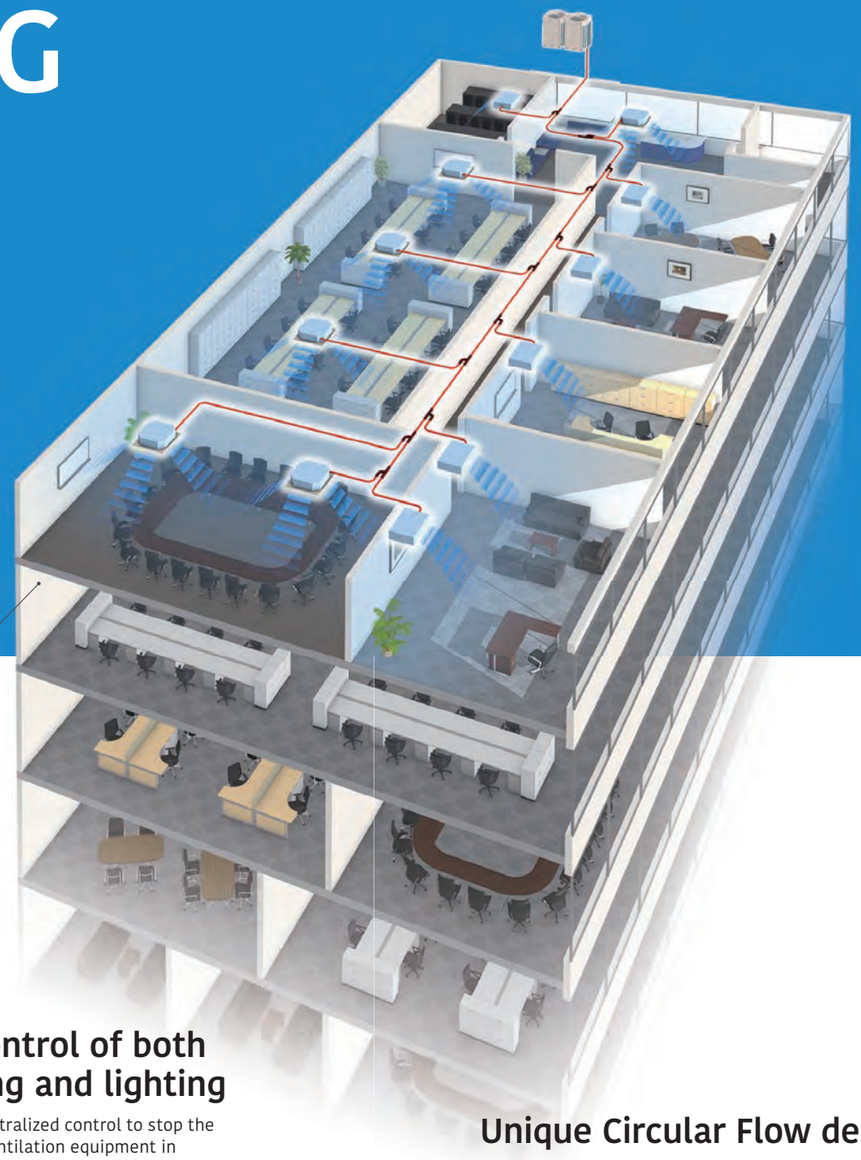
Uniform temperature air conditioning

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

TROPICAL SPEC

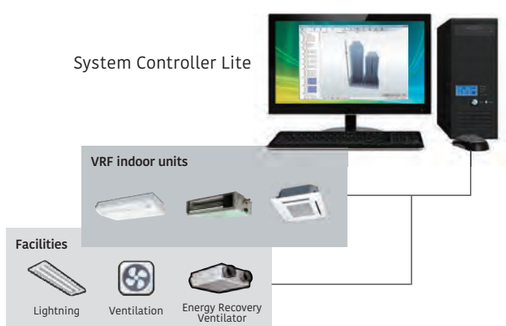
VRF **V-III** Tropical Series

8 HP - 48 HP 32 Models

- Space saving combination: 8 HP to 48 HP/21 models
- Energy efficiency combination: 20 HP to 42 HP/ 11 models

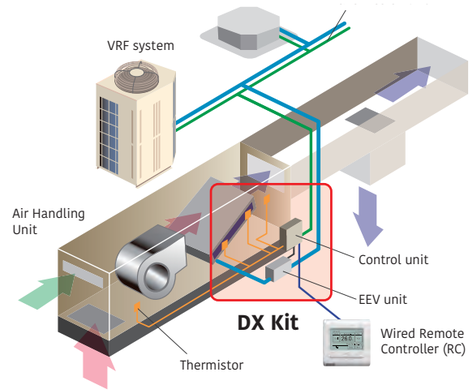
Centralized control of both air conditioning and lighting

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.



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.



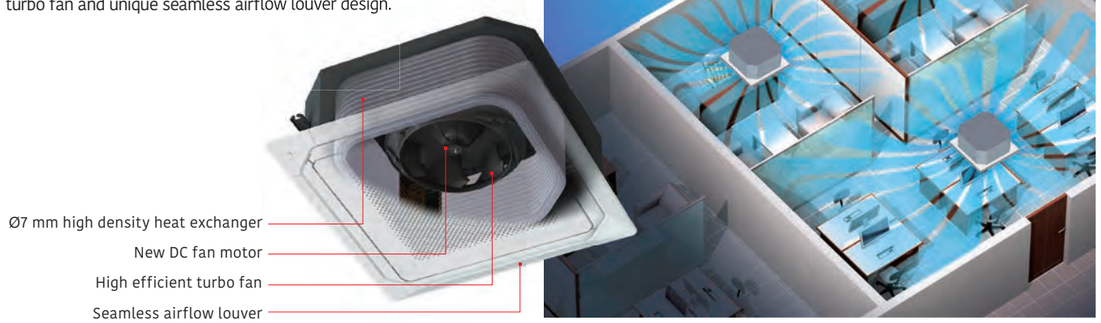
Difference in height Up to 110m

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

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.



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.

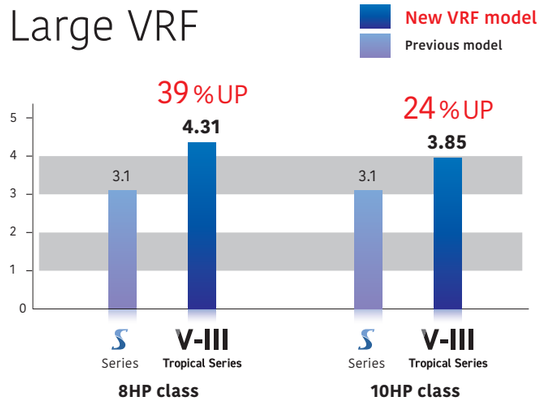
VRF Systems can be designed to effectively provide an air conditioning solution from a large domestic residence through to a large scale commercial building.

HIGH ENERGY EFFICIENCY

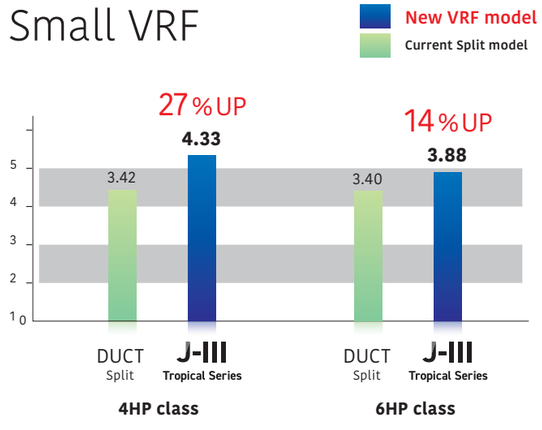
Highly Energy Efficiency

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

Large VRF



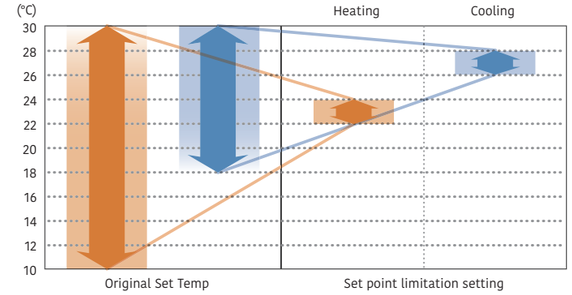
Small VRF



Operation Performance is Efficiently Controlled.

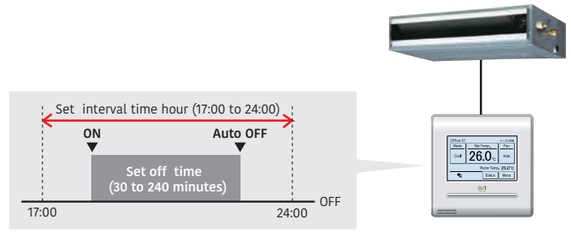
Room temperature set point limitation

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



Auto-off timer

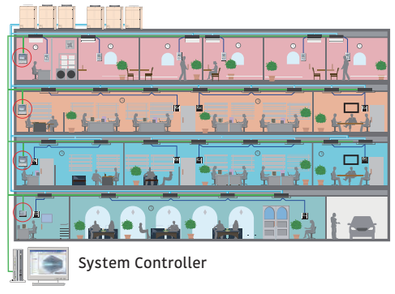
New wired remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents waste of energy.
Furthermore a new wired remote controller can set up the interval of time in case operation stops.



Energy saving management

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

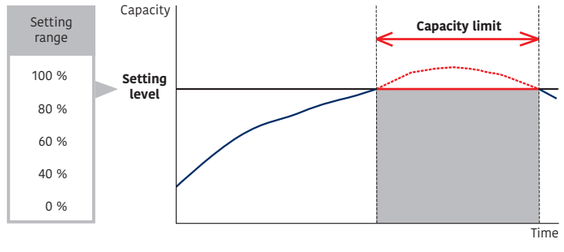
(Screen image is Energy manager software (Option))



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.



HIGH RELIABILITY

Heavy anti-corrosion treatment design

Anti-corrosion coated casing parts

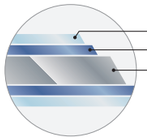
Satisfied the JRA* heavy anti-corrosion regulation(9002)

*JRA: Japan Refrigeration Association

PCB and Electronic components

High ambient temperature compatible electric components. Added silicon coating on all PCB circuits for anti-corrosion.

Blue fin heat exchanger

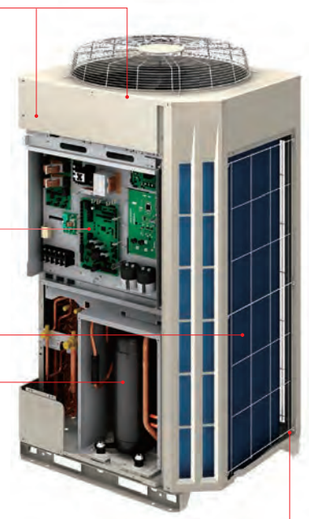


High ambient & corrosion compatible

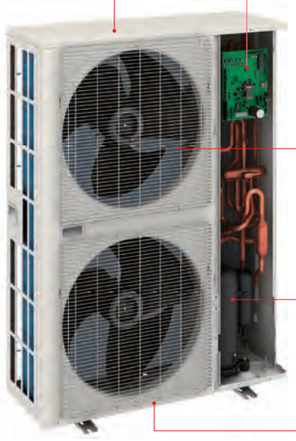
PCB components
Refrigerant cycle component

All screws and hinges

Added zinc chrome acid film treatment.



VRF V-III Tropical Series



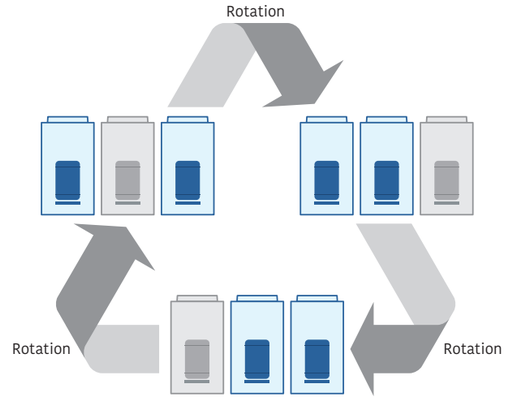
VRF J-III Tropical Series

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

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

Life-extending operation

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

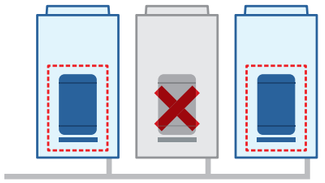


The start and stop timings are alternated among connected compressors.

Backup operation

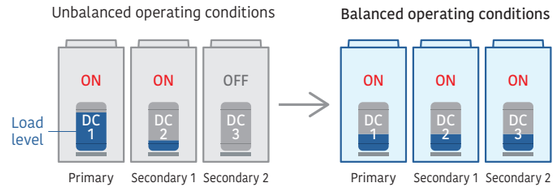
If one compressor fails, backup operation will be performed by the remaining compressors*.

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



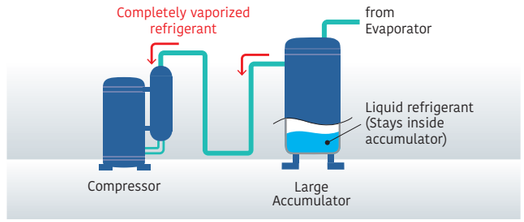
Advanced refrigerant control

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.



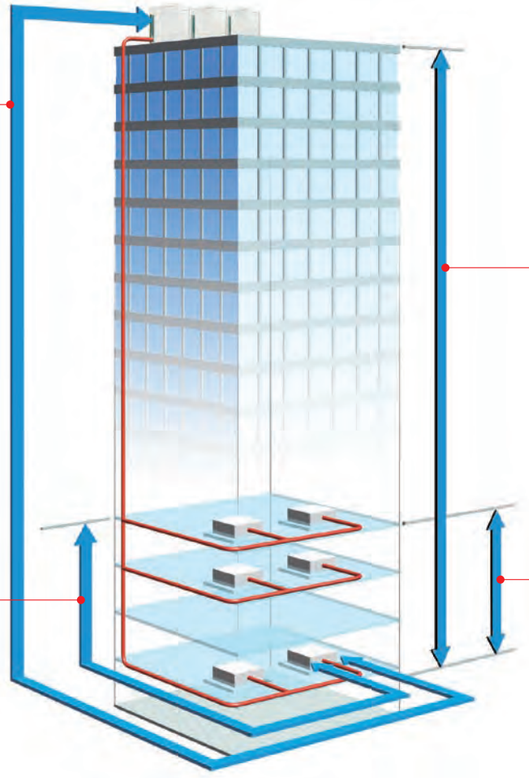
Oil Recovery operation

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

DESIGN FLEXIBILITY

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

Total pipe length
1,000 m maximum



Actual pipe length
165 m
(V-III tropical)

Height difference between outdoor and indoor units
50 m maximum
NOTE: Possible to extend the height difference by using option parts UTY-SPWX

For the outdoor unit installed below the indoor units:
40m maximum

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 separation tube to the farthest indoor unit
90 m* maximum
(V-III tropical)
*: The limitation on the pipe length between the farthest IU and the nearest IU originated from the first separation tube must be 60m or less.

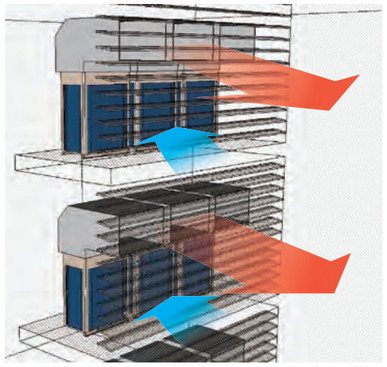
Note: J-III tropical refer to page 44.

Height difference between indoor and indoor units
15 m maximum

High static pressure

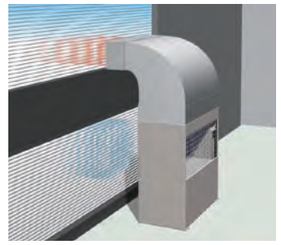
The outdoor unit can have a condenser hood easily connected with a static pressure of 82Pa.
This allows outdoor units to be installed within plant rooms in high rise buildings.

Powerful discharge air prevents a short-circuit.

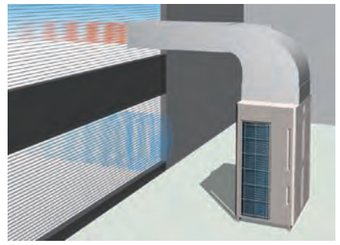


82 Pa
(V-III tropical)

Previous model



V-III tropical



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

High capacity connection

VRF V-III Tropical Series

8HP-48HP
32models

Connectable indoor unit capacity range
50 % to 130 %

Connectable indoor unit number
up to 55

VRF J-III Tropical Series

4HP-6HP
6models

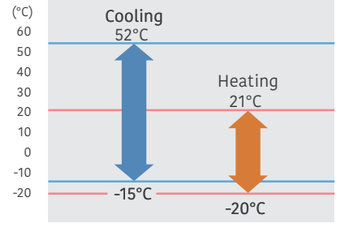
Connectable indoor unit capacity range
50 % to 130 %

Connectable indoor unit number
up to 9

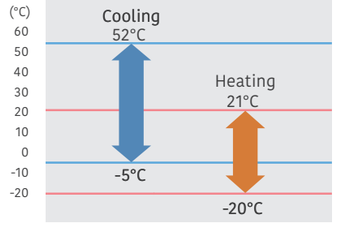
High ambient operation design

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

VRF V-III Tropical Series



VRF J-III Tropical Series



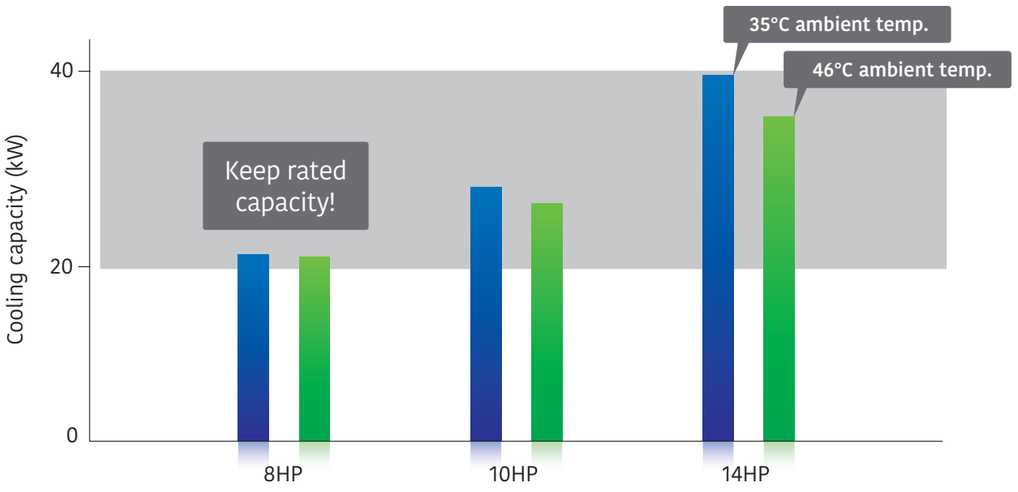
*. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 52°C in cooling.

MORE COMFORT

Powerful cooling capacity design

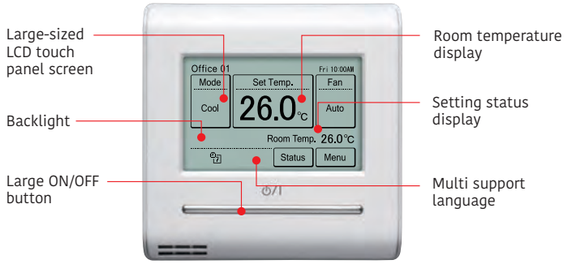
TROPICAL SPEC

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



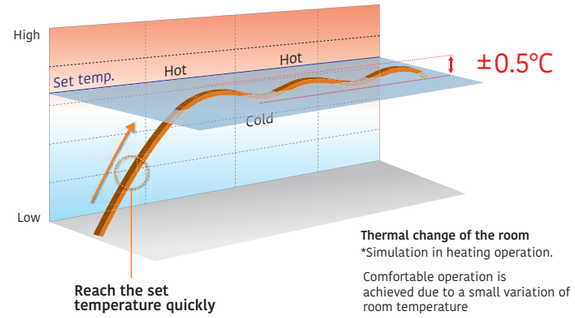
Touch Panel Wired Remote Controller

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

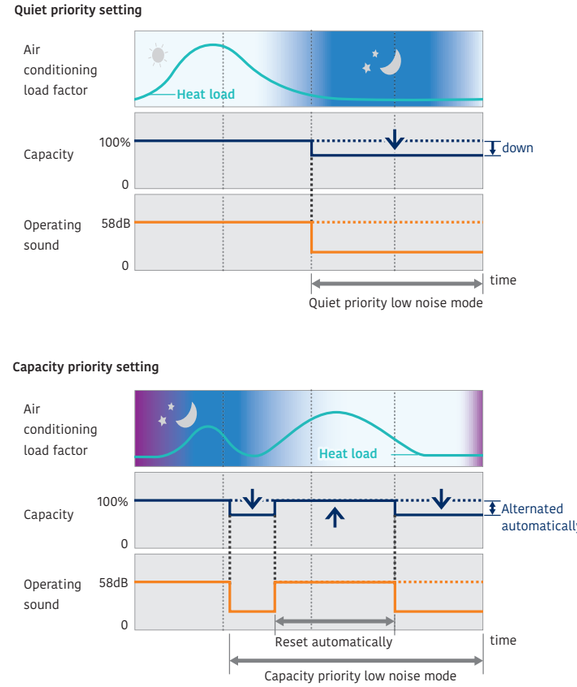
Precise and smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows high precision comfortable temperature control of ±0.5°C.



Quiet operation

Low noise mode

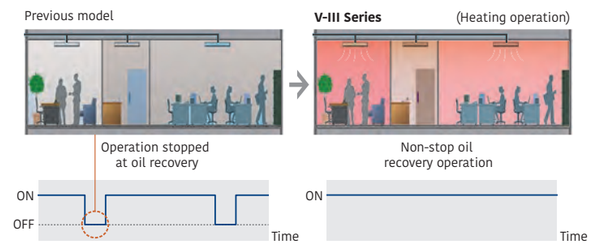
Two low noise modes can be selected automatically by quiet priority setting and capacity priority setting depending on the indoor environment and outside temperature load. This feature can be controlled via outdoor unit external input and/or system controller.



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.

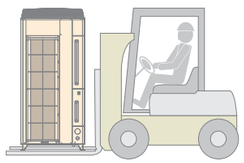


EASY INSTALLATION

Easily transported

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

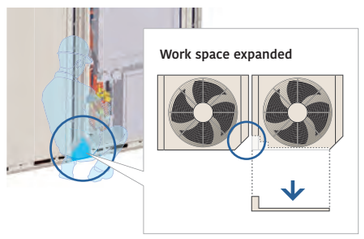
Transportable by forklift
The outdoor unit can be lifted and transported by forklift.



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.



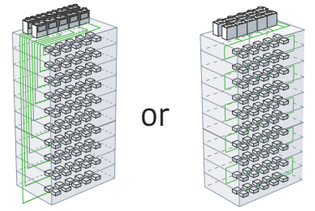
Front access reduces installation intervals

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.



Parallel connection

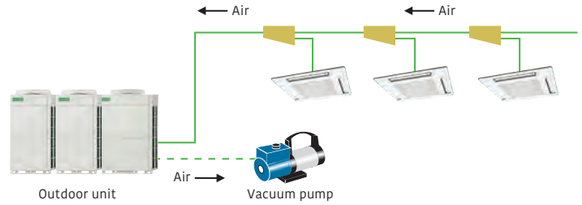
Serial connection

Maximum wiring length:
3,600 m

Note: The automatic address setting is not available on a serially connected multiple refrigerant system.

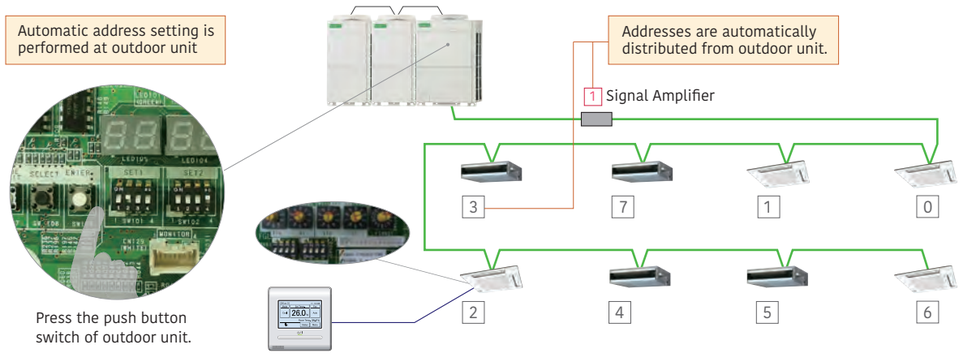
Easy evacuation - using vacuum mode function

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

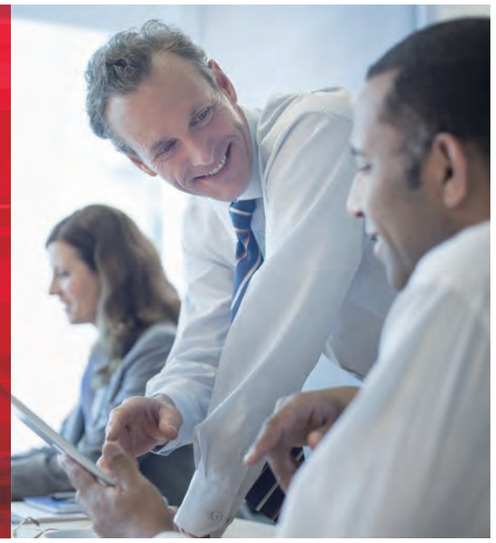
• Service Tool (UTY-ASGXZ1)

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.

NEW • Central Remote Controller (UTY-DCGGZ3)

After the VRF system has been installed.
Conveniently, the “test run” required to verify proper system operation can be performed from a nearby Central RC.

EASY SERVICE & MAINTENANCE



Design for Easy Maintenance

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

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

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

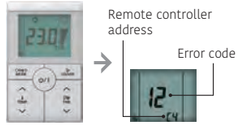
Movable PCB panel
Easier for maintenance work behind the PCB

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

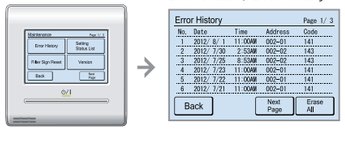
An error code is displayed on a liquid crystal screen.

Wired Remote Controller

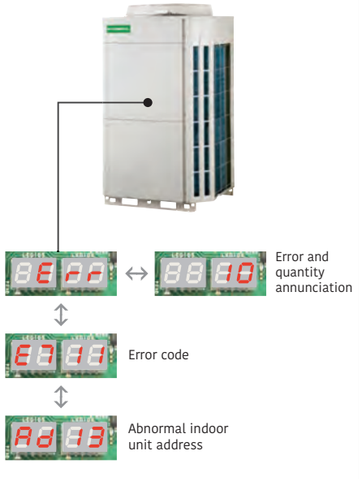
Simple Remote Controller



Wired Remote Controller (Touch panel)



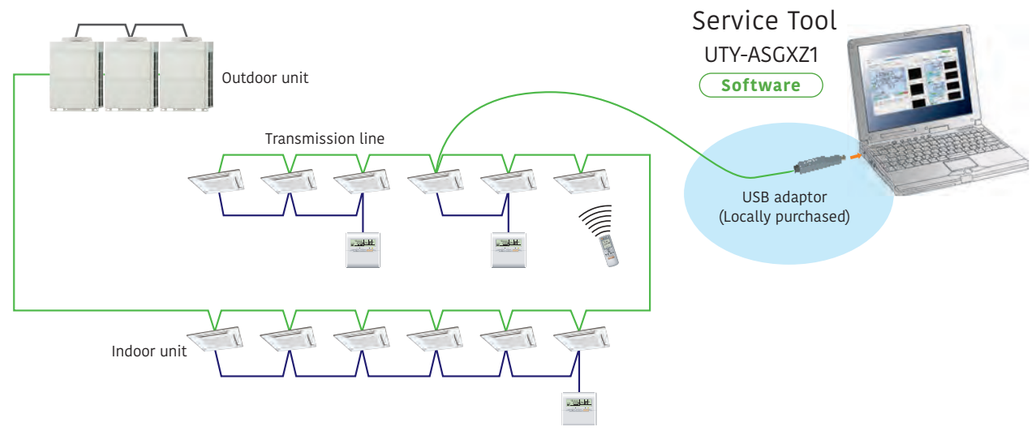
Error status can be checked easily by outdoor unit display



Error diagnosis by Service Tool

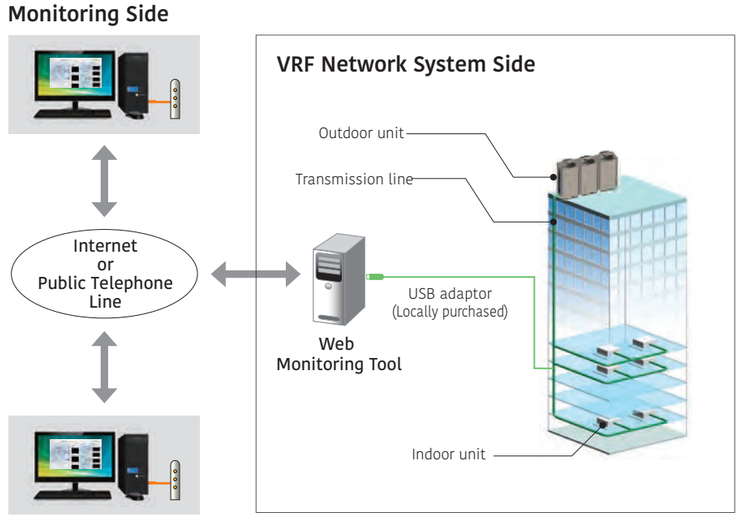
Connection to Service Tool

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



Remote monitoring

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



VRF 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 39 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.

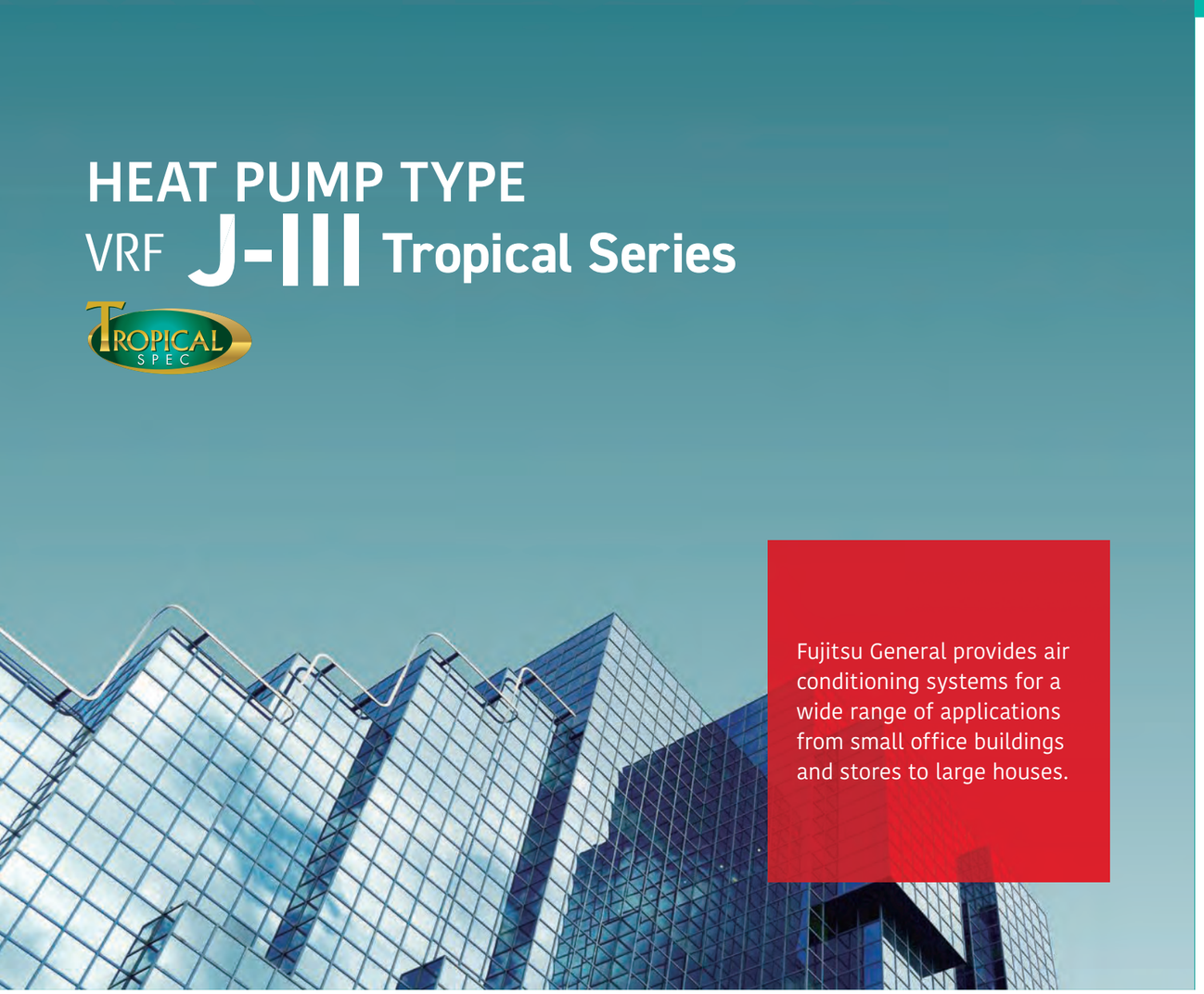
VRF LINE-UP

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	30	32	34	36	38	40	42	44	46	48
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	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000
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	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0
VRF J-III Tropical Series Heat Pump	High Efficiency (Single phase)	AJH040 LBTAHN	AJH045 LBTAHN	AJH054 LBTAHN																					
	High Efficiency (3 phase)	AJH040 LETAHN	AJH045 LETAHN	AJH054 LETAHN																					
VRF V-III Tropical Series Heat Pump	Space saving				AJS072 LNTCH	AJS090 LNTCH	AJS108 LNTCH	AJS126 LNTCH	AJS144 LNTCH		AJS180 LNTCH	AJS198 LNTCH	AJS216 LNTCH	AJS234 LNTCH	AJS252 LNTCHA	AJS270 LNTCH	AJS288 LNTCH	AJS306 LNTCHA	AJS324 LNTCHA	AJS342 LNTCHA	AJS360 LNTCH	AJS378 LNTCH			AJS432 LNTCH
	High Efficiency								AJS144 LNTCHH	AJS162 LNTCHH	AJS180 LNTCHH		AJS216 LNTCHH	AJS234 LNTCHH	AJS252 LNTCHH	AJS270 LNTCHH	AJS288 LNTCHH	AJS306 LNTCHH	AJS324 LNTCHH	AJS342 LNTCHH	AJS360 LNTCHH	AJS378 LNTCHH	AJS396 LNTCHH	AJS414 LNTCHH	

HEAT PUMP TYPE
VRF J-III 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

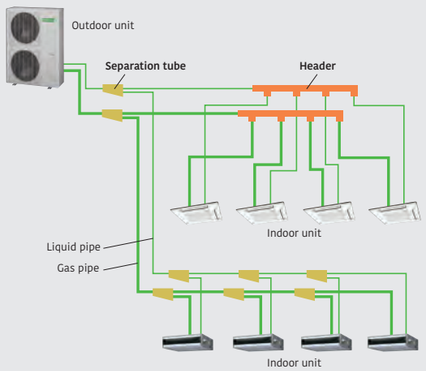
Heat pump inverter control is used to achieve an efficient cooling and heating operation in any indoor unit combination.

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 small- and medium-size buildings.
Multiple indoor units of various capacities and types can be connected.

System configuration example

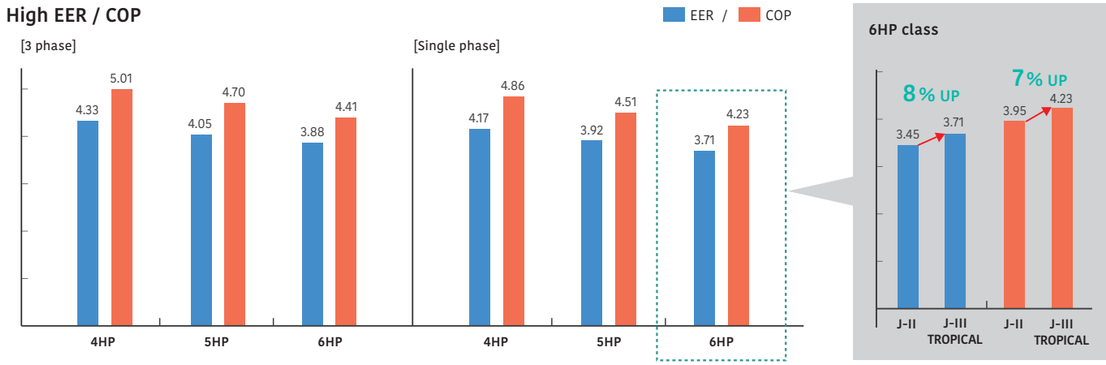
- This system is used for small and medium-sized buildings. 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers.



Energy efficiency

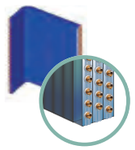
Top class high COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.

High EER / COP



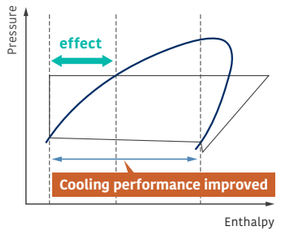
Advanced high efficiency technology

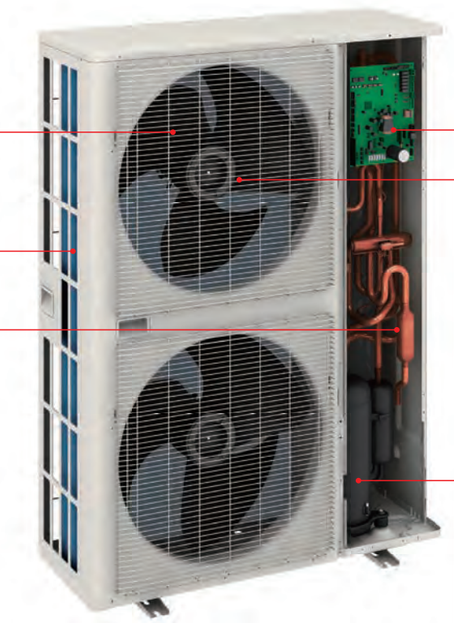
Large propeller fan
High performance and low noise realized by large propeller and optimization of angle.



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.

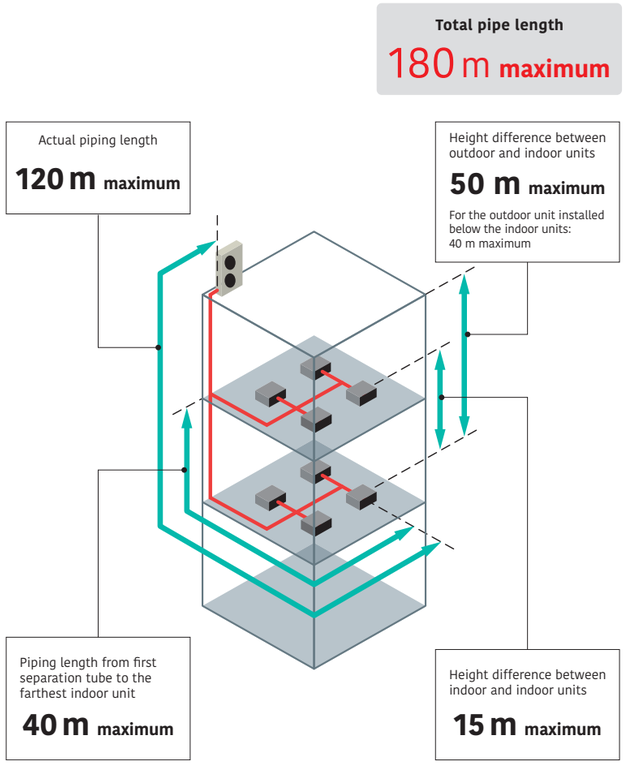
INVERTER fan motor
Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.

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

Made in JAPAN

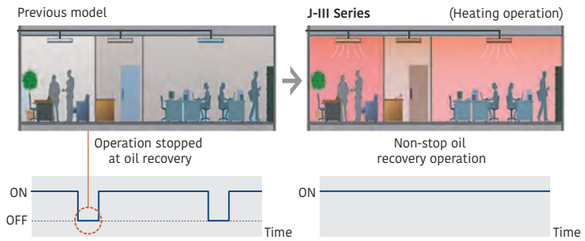
Long piping capability

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.



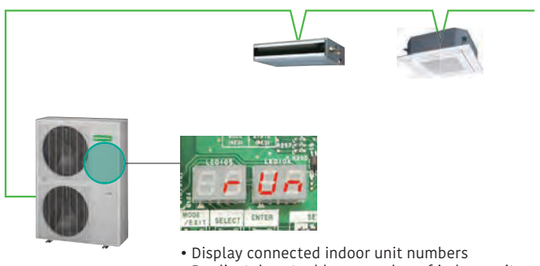
Non-stop oil recovery operation

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

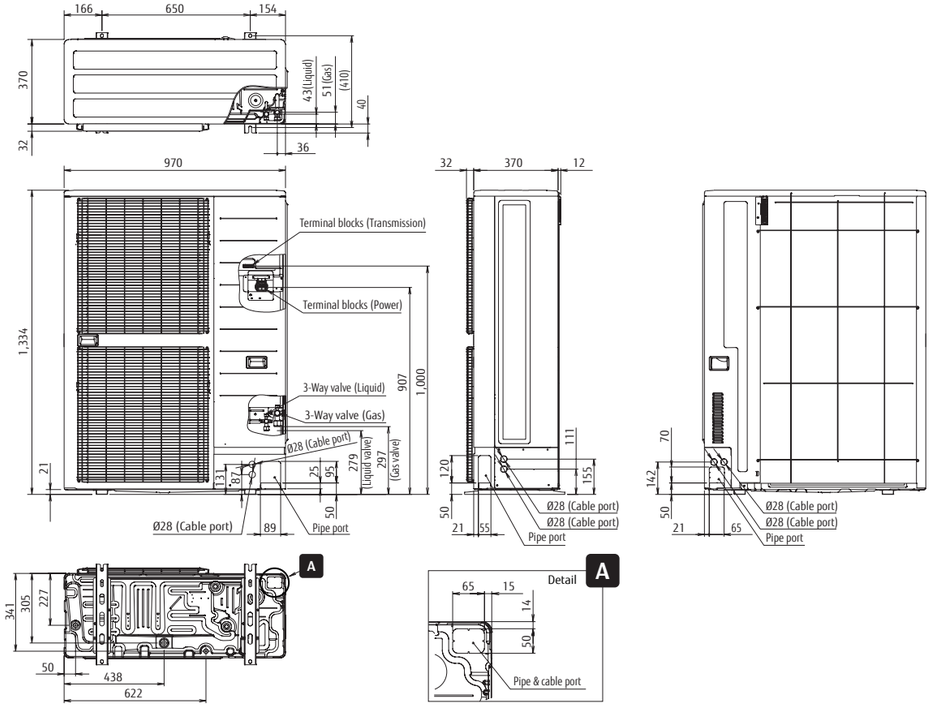
Rating Capacity range		HP	4	5	6	4	5	6
		Btu/h	36,000	45,000	54,000	36,000	45,000	54,000
		Ton	3.0	3.8	4.5	3.0	3.8	4.5
Model name			AJH040LBTAHN	AJH045LBTAHN	AJH054LBTAHN	AJH040LETAHN	AJH045LETAHN	AJH054LETAHN
Maximum Connectable Indoor Unit			1-7	1-8	1-9	1-7	1-8	1-9
Power source			Single phase, 220-240V, 60Hz			3 phase, 380-415V, 60Hz		
Capacity	Cooling(T1/T3)	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
	Heating		13.6	16.0	18.0	13.6	16.0	18.0
	Cooling(T1/T3)	Btu/h	41,000/35,000	47,500/37,800	52,500/39,000	41,000/35,000	47,500/37,800	52,500/39,000
	Heating		46,000	54,500	61,000	46,000	54,500	61,000
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
	Heating		2.80	3.55	4.26	2.71	3.40	4.08
Current	Cooling(T1/T3)	A	12.7/15.2	15.7/16.6	18.4/17.2	5.2/6.2	6.6/6.6	7.7/6.9
	Heating		12.3	15.6	18.7	5.0	6.5	7.8
EER	Cooling(T1/T3)	W/W	4.17/2.97	3.92/2.95	3.71/2.94	4.33/3.13	4.05/3.11	3.88/3.10
		Btu/h/W	14.15/10.10	13.30/10.05	12.60/9.95	14.70/10.60	13.75/10.60	13.15/10.50
COP	Heating	W/W	4.86	4.51	4.23	5.01	4.70	4.41
		Btu/h/W	16.45	15.35	14.30	17.00	16.00	14.95
Air flow rate	High	m^3/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 level	Cooling	dB (A)	50	51	53	50	51	53
	Heating		52	53	55	52	53	55
Net Dimensions	Height	mm	1,334	1,334	1,334	1,334	1,334	1,334
	Width		970	970	970	970	970	970
	Depth		370	370	370	370	370	370
Net Weight		kg	120	120	120	120	120	120
Refrigerant		Type	R410A	R410A	R410A	R410A	R410A	R410A
Connection pipe diameter	Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52
	Gas		15.88	15.88	19.05	15.88	15.88	19.05
Operating range	Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
	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.

Dimensions

(Unit : mm)

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



HEAT PUMP TYPE
VRF V-III Tropical Series

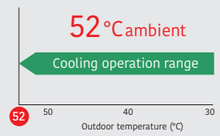
TROPICAL SPEC

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

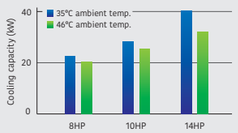
High ambient operation design

Possible to operate cooling up to 52°C outdoor temperature



Powerful cooling capacity design

Keeping high cooling power at even high ambient temperature

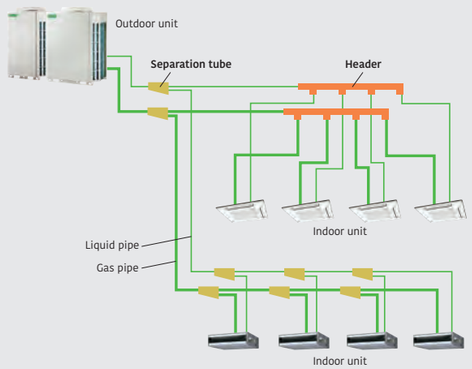


Anti-corrosion treatment design

All metallic and PCB components are protected against corrosion

System configuration example

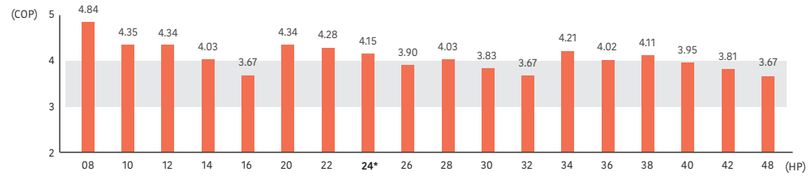
- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.



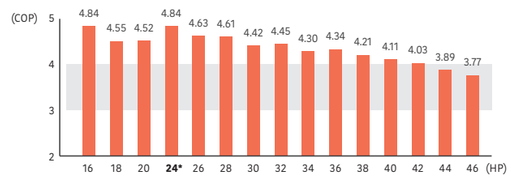
Energy efficiency

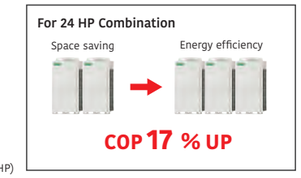
Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.

Space saving combination



Energy efficiency combination





Energy saving technology that boosted operation efficiency

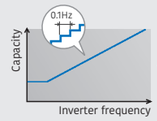
Powerful large propeller fan
By using CFD*1 technology, a newly designed fan achieves high performance and low noise operation. *1. CFD = Computational Fluid Dynamics

All Inverter

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

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

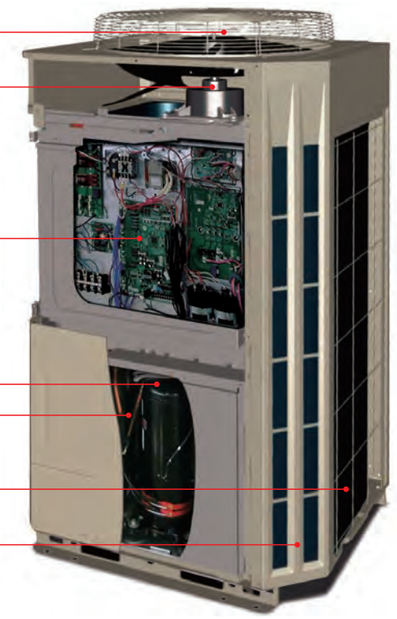
High efficient & Large capacity DC inverter compressor
Large capacity high efficient DC twin rotary compressor with 0.1Hz steps compressor speed control



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

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

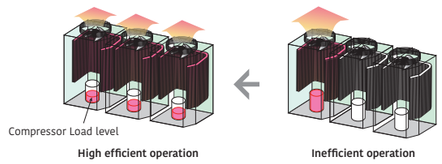
Front intake port (corner cut air inhaling structure)



Advanced energy saving control

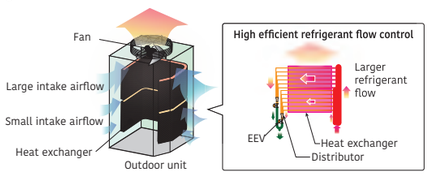
Multiple outdoor operation control

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



Heat exchanger refrigerant control

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



Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combinations

72,000Btu/h (8HP) AJS072LNTCH UNIT : AJS072LNTCH	90,000Btu/h (10HP) AJS090LNTCH UNIT : AJS090LNTCH	108,000Btu/h (12HP) AJS108LNTCH UNIT : AJS108LNTCH	126,000Btu/h (14HP) AJS126LNTCH UNIT : AJS126LNTCH	144,000Btu/h (16HP) AJS144LNTCH UNIT : AJS144LNTCH
180,000Btu/h (20HP) AJS180LNTCH UNIT : AJS090/090LNTCH	198,000Btu/h (22HP) AJS198LNTCH UNIT : AJS126/072LNTCH	216,000Btu/h (24HP) AJS216LNTCH UNIT : AJS126/090LNTCH	234,000Btu/h (26HP) AJS234LNTCH UNIT : AJS144/090LNTCH	252,000Btu/h (28HP) AJS252LNTCHA UNIT : AJS126/126LNTCH
270,000Btu/h (30HP) AJS270LNTCH UNIT : AJS144/126LNTCH	288,000Btu/h (32HP) AJS288LNTCH UNIT : AJS144/144LNTCH	306,000Btu/h (34HP) AJS306LNTCHA UNIT : AJS126/090/090LNTCH	324,000Btu/h (36HP) AJS324LNTCHA UNIT : AJS144/090/090LNTCH	342,000Btu/h (38HP) AJS342LNTCHA UNIT : AJS126/126/090LNTCH
360,000Btu/h (40HP) AJS360LNTCH UNIT : AJS144/126/090LNTCH	378,000Btu/h (42HP) AJS378LNTCH UNIT : AJS144/144/090LNTCH	432,000Btu/h (48HP) AJS432LNTCH UNIT : AJS144/144/144LNTCH		

Energy efficiency combinations

144,000Btu/h (16HP) AJS144LNTCHH UNIT : AJS072/072LNTCH	162,000Btu/h (18HP) AJS162LNTCHH UNIT : AJS090/072LNTCH	180,000Btu/h (20HP) AJS180LNTCHH UNIT : AJS108/072LNTCH	216,000Btu/h (24HP) AJS216LNTCHH UNIT : AJS072/072/072LNTCH	234,000Btu/h (26HP) AJS234LNTCHH UNIT : AJS090/072/072LNTCH
252,000Btu/h (28HP) AJS252LNTCHH UNIT : AJS108/072/072LNTCH	270,000Btu/h (30HP) AJS270LNTCHH UNIT : AJS126/072/072LNTCH	288,000Btu/h (32HP) AJS288LNTCHH UNIT : AJS108/108/072LNTCH	306,000Btu/h (34HP) AJS306LNTCHH UNIT : AJS126/108/072LNTCH	324,000Btu/h (36HP) AJS324LNTCHH UNIT : AJS108/108/108LNTCH
342,000Btu/h (38HP) AJS342LNTCHH UNIT : AJS126/108/108LNTCH	360,000Btu/h (40HP) AJS360LNTCHH UNIT : AJS126/126/108LNTCH	378,000Btu/h (42HP) AJS378LNTCHH UNIT : AJS126/126/126LNTCH	396,000Btu/h (44HP) AJS396LNTCHH UNIT : AJS144/126/126LNTCH	414,000Btu/h (46HP) AJS414LNTCHH UNIT : AJS144/144/126LNTCH

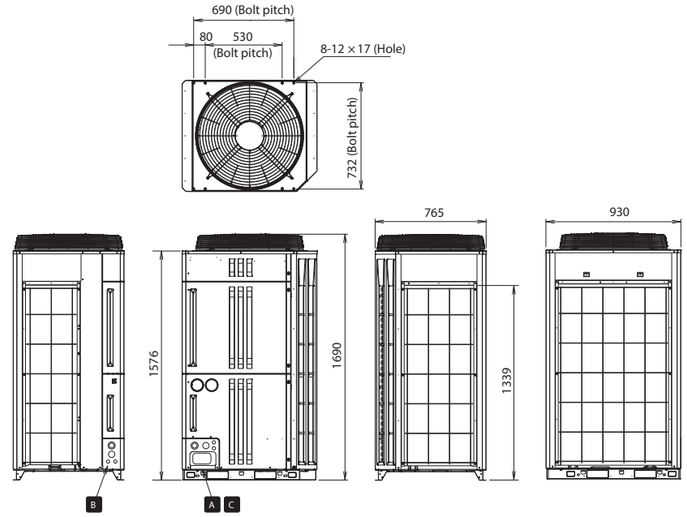
8,10HP: AJS072LNTCH / AJS090LNTCH
12,14,16HP: AJS108LNTCH / AJS126LNTCH / AJS144LNTCH

8, 10HP　　12, 14, 16HP

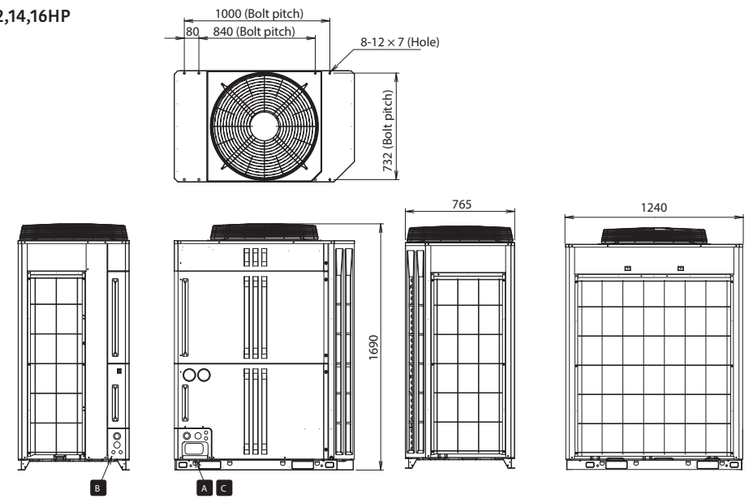
Dimensions

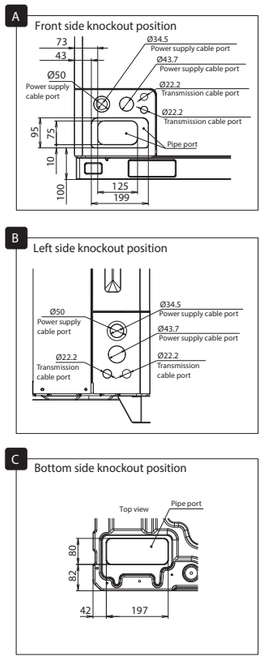
(Unit : mm)

8,10HP



12,14,16HP





Space Saving Combinations

Rating Capacity range			HP	8	10	12	14	16	20	22	24	26	28	30	32	34	36	38	40	42	48
			Btu/h	72,000	90,000	108,000	126,000	144,000	180,000	198,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	432,000
			Ton	6.0	7.5	9.0	10.5	12.0	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	36.0
Model name				AJS072LNTCH	AJS090LNTCH	AJS108LNTCH	AJS126LNTCH	AJS144LNTCH	AJS180LNTCH	AJS198LNTCH	AJS216LNTCH	AJS234LNTCH	AJS252LNTCHA	AJS270LNTCH	AJS288LNTCH	AJS306LNTCHA	AJS324LNTCHA	AJS342LNTCHA	AJS360LNTCH	AJS378LNTCH	AJS432LNTCH
Unit 1 Unit 2 Unit 3				AJS072LNTCH	AJS090LNTCH	AJS108LNTCH	AJS126LNTCH	AJS144LNTCH	AJS090LNTCH AJS090LNTCH	AJS126LNTCH AJS072LNTCH	AJS126LNTCH AJS090LNTCH	AJS144LNTCH AJS090LNTCH	AJS126LNTCH AJS126LNTCH	AJS144LNTCH AJS126LNTCH	AJS144LNTCH AJS144LNTCH	AJS126LNTCH AJS090LNTCH AJS090LNTCH	AJS144LNTCH AJS090LNTCH AJS090LNTCH	AJS126LNTCH AJS126LNTCH AJS090LNTCH	AJS144LNTCH AJS126LNTCH AJS090LNTCH	AJS144LNTCH AJS144LNTCH AJS090LNTCH	AJS144LNTCH AJS144LNTCH AJS144LNTCH
Maximum Connectable Indoor Unit				13	16	19	23	26	33	36	40	43	47	50	53	55	55	55	55	55	55
Indoor unit connectable capacity	Cooling		kW	11.2-29.1	14-36.4	16.8-43.5	20-52	22.5-58.5	28-72.8	31.2-81.1	34-88.4	36.5-94.9	40-104	42.5-110.5	45-117	48-124.8	50.5-131.3	54-140.4	56.5-146.9	59-153.4	67.5-175.5
Power source				3 phase, 380-415V, 60Hz								3 phase, 380-415V, 60Hz									
T1 condition	Capacity	Cooling	kW	22.4	28.0	33.5	40.0	45.0	56.0	62.4	68.0	73.0	80.0	85.0	90.0	96.0	101.0	108.0	113.0	118.0	135.0
		Heating		25.0	31.5	37.5	45.0	50.0	63.0	70.0	76.5	81.5	90.0	95.0	100.0	108.0	113.0	121.5	126.5	131.5	150.0
		Cooling	Btu/h	76000	95000	114000	135000	152000	190000	211000	230000	247000	270000	287000	304000	325000	342000	365000	382000	399000	456000
		Heating		85000	107000	127000	152000	170000	214000	237000	259000	277000	304000	322000	340000	366000	384000	411000	429000	447000	510000
	Input power	Cooling	kW	5.20	7.28	8.96	10.96	13.01	14.56	16.16	18.24	20.29	21.92	23.97	26.02	25.52	27.57	29.20	31.25	33.30	39.03
		Heating		5.17	7.25	8.65	11.17	13.63	14.50	16.34	18.42	20.88	22.34	24.80	27.26	25.67	28.13	29.59	32.05	34.51	40.89
	Current	Cooling	A	9.2	12.0	15.0	17.7	20.7	-	-	-	-	-	-	-	-	-	-	-	-	-
		Heating		9.2	12.2	14.6	18.2	21.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER	Cooling	W/W	4.31	3.85	3.74	3.65	3.46	3.85	3.86	3.73	3.60	3.65	3.55	3.46	3.76	3.66	3.70	3.62	3.54	3.46
	COP	Heating		4.84	4.35	4.34	4.03	3.67	4.34	4.28	4.15	3.90	4.03	3.83	3.67	4.21	4.02	4.11	3.95	3.81	3.67
	EER	Cooling	Btu/h/W	14.60	13.00	12.70	12.30	11.65	13.05	13.06	12.61	12.17	12.32	11.97	11.68	12.74	12.40	12.50	12.22	11.98	11.68
	COP	Heating		16.40	14.75	14.65	13.60	12.45	14.76	14.50	14.06	13.27	13.61	12.98	12.47	14.26	13.65	13.89	13.39	12.95	12.47
T3 condition	Capacity	Cooling	kW	20.2	25.2	28.5	32	35.1	50.4	52.2	57.2	60.3	64.0	67.1	70.2	82.4	85.5	89.2	92.3	95.4	105.3
			Btu/h	68000	86000	97000	109000	119000	172000	177000	195000	205000	218000	228000	238000	281000	291000	304000	314000	324000	357000
	Input power		kW	6.73	9.20	9.34	10.70	11.82	18.40	17.43	19.90	21.02	21.40	22.52	23.64	29.10	30.22	30.60	31.72	32.84	35.46
	Current		A	10.8	14.5	14.7	16.9	18.6	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER		W/W	3.00	2.74	3.05	2.99	2.97	2.74	2.99	2.87	2.87	2.99	2.98	2.97	2.83	2.83	2.92	2.91	2.90	2.97
			Btu/h/W	10.10	9.30	10.35	10.15	10.05	9.35	10.15	9.80	9.75	10.19	10.12	10.07	9.66	9.63	9.93	9.90	9.87	10.07
Power factor			%	90	92	92	92	92	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate	High		m^3/h	11100	11100	13000	13000	13700	11100×2	13000+11100	13000+11100	13700+11100	13000×2	13700+13000	13700×2	13000+11100×2	13700+11100×2	13000×2+11100	13700+13000+11100	13700×2+11100	13700×3
Sound pressure level	Cooling		dB (A)	56	58	57	60	62	61	61	62	63	63	64	65	64	65	64	65	66	67
	Heating			58	59	60	62	64	62	63	64	65	65	66	67	65	66	66	67	68	69
Maximum external static pressure			Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output			kW	7.5	7.5	11	11	11	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3
Heat exchanger fin				Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions	Height		mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
	Width			930	930	1240	1240	1240	930×2	1240+930	1240+930	1240+930	1240×2	1240×2	1240×2	1240+930×2	1240+930×2	1240×2+930	1240×2+930	1240×2+930	1240×3
	Depth			765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight			kg	255	255	279	279	279	255×2	279+255	279+255	279+255	279×2	279×2	279×2	279+255×2	279+255×2	279×2+255	279×2+255	279×2+255	279×3
Refrigerant	Type			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge		kg	11.7	11.7	11.8	11.8	11.8	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8×3
Connection pipe diameter	Liquid		mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Discharge Gas			22.22	22.22	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27
Operating range	Cooling		°CDB	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
	Heating			-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Energy Efficiency Combinations

Rating Capacity range			HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
			Btu/h	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	12.0	13.5	15.0	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5
Model name				AJS144LNTCHH	AJS162LNTCHH	AJS180LNTCHH	AJS216LNTCHH	AJS234LNTCHH	AJS252LNTCHH	AJS270LNTCHH	AJS288LNTCHH	AJS306LNTCHH	AJS324LNTCHH	AJS342LNTCHH	AJS360LNTCHH	AJS378LNTCHH	AJS396LNTCHH	AJS414LNTCHH
Unit 1 Unit 2 Unit 3				AJS072LNTCH AJS072LNTCH	AJS090LNTCH AJS072LNTCH	AJS108LNTCH AJS072LNTCH	AJS072LNTCH AJS072LNTCH AJS072LNTCH	AJS090LNTCH AJS072LNTCH AJS072LNTCH	AJS108LNTCH AJS072LNTCH AJS072LNTCH	AJS126LNTCH AJS072LNTCH AJS072LNTCH	AJS108LNTCH AJS108LNTCH AJS072LNTCH	AJS126LNTCH AJS108LNTCH AJS072LNTCH	AJS108LNTCH AJS108LNTCH AJS108LNTCH	AJS126LNTCH AJS108LNTCH AJS108LNTCH	AJS126LNTCH AJS126LNTCH AJS108LNTCH	AJS126LNTCH AJS126LNTCH AJS126LNTCH	AJS144LNTCH AJS126LNTCH AJS126LNTCH	AJS144LNTCH AJS144LNTCH AJS126LNTCH
Maximum Connectable Indoor Unit				26	29	33	39	43	46	50	52	55	55	55	55	55	55	55
Indoor unit connectable capacity	Cooling		kW	22.4-58.2	25-65	28-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2	48-124.6	50.3-130.6	53.5-139.1	56.8-147.5	60-156	62.5-162.5	65-169
Power source				3 phase, 380-415V, 60Hz								3 phase, 380-415V, 60Hz						
T1 condition	Capacity	Cooling	kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	125	130.0
		Heating		50	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140	145.0
		Cooling	Btu/h	152000	171000	190000	228000	247000	266000	287000	304000	325000	342000	363000	384000	405000	422000	439000
		Heating		170000	192000	212000	255000	277000	297000	322000	339000	364000	381000	406000	431000	456000	474000	492000
	Input power	Cooling	kW	10.4	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
		Heating		10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
	Current	Cooling	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Heating		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER	Cooling	W/W	4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52
	COP	Heating		4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
	EER	Cooling	Btu/h/W	14.62	13.70	13.42	14.62	13.97	13.74	13.44	13.15	12.94	12.72	12.57	12.44	12.32	12.08	11.87
	COP	Heating		16.44	15.46	15.34	16.44	15.75	15.64	14.97	15.09	14.57	14.68	14.26	13.91	13.61	13.18	12.80
T3 condition	Capacity	Cooling	kW	40.4	45.4	48.7	60.6	65.6	68.9	72.4	77.2	80.7	85.5	89.0	92.5	96.0	99.1	102.2
			Btu/h	136000	154000	165000	204000	222000	233000	245000	262000	274000	291000	303000	315000	327000	337000	347000
	Input power		kW	13.46	15.93	16.07	20.19	22.66	22.80	24.16	25.41	26.77	28.02	29.38	30.74	32.10	33.22	34.34
	Current		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER		W/W	3.00	2.85	3.03	3.00	2.89	3.02	3.00	3.04	3.01	3.05	3.03	3.01	2.99	2.98	2.98
			Btu/h/W	10.1	9.67	10.27	10.10	9.80	10.22	10.14	10.31	10.24	10.39	10.31	10.25	10.19	10.14	10.10
Power factor			%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate	High		m^3/h	11100×2	11100×2	13000+11100	11100×3	11100×3	13000+11100×2	13000+11100×2	13000×2+11100	13000×2+11100	13000×3	13000×3	13000×3	13000×3	13700+13000×2	13700×2+13000
Sound pressure level	Cooling		dB (A)	59	60	60	61	62	61	63	61	63	62	63	64	65	66	66
	Heating			61	62	62	63	63	64	65	64	65	65	66	66	67	68	68
Maximum external static pressure			Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output			kW	7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin				Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions	Height		mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
	Width			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	252×2	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	275×3	279×3
Refrigerant	Type			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge		kg	11.7×2	11.7×2	11.8+11.7	11.7×3	11.7×3	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid		mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Discharge Gas			28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
Operating range	Cooling		°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
	Heating			-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note: Specifications are based on the following conditions.

Cooling(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.

VRF INDOOR UNITS

INDOOR UNITS LINE-UP

Compact Cassette

Circular Flow Cassette

Slim Duct / Slim Concealed Floor

Medium Static Pressure Duct

High Static Pressure Duct

Large Airflow Duct

Floor / Ceiling

Ceiling

Wall Mounted (EEV Internal)

10 Type and 55 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.
10 types, 55 models, Capacity range from 7,000 Btu/h to 96,000 Btu/h

Indoor units range

Capacity range		Btu/h	7,000	9,000	12,000	14,000	18,000	24,000	30,000	34,000	36,000	45,000	54,000	60,000	72,000	90,000	96,000
		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	10.0	11.2	12.5	14.0	18.0	22.4	25.0	28.0
Cassette	Compact Cassette			AUXB09GATH	AUXB12GATH	AUXB14GATH	AUXB18GATH	AUXB24GATH									
	Circular Flow	(Slim type)					AUXM018GTAH	AUXM024GTAH									
		(Large type)					AUXK018GTAH	AUXK024GTAH	AUXK030GTAH	AUXK034GTAH	AUXK036GTAH	AUXK045GTAH	AUXK054GTAH				
Duct	Slim Duct (With drain pump)		ARXD07GATH	ARXD09GATH	ARXD12GATH	ARXD14GATH	ARXD18GATH	ARXD24GATH									
	Medium Static Pressure Duct							ARXA24GBTH	ARXA30GBTH		ARXA36GBTH	ARXA45GBTH					
	High Static Pressure Duct										ARXC36GBTH				ARXC72GBTH*1	ARXC90GBTH*1	ARXC96GATH*1
												ARKC45GATH		ARKC60GATH*1			
	Large Airflow Duct						ARXN18GATH*2	ARXN24GATH*2	ARXN30GATH*2	ARXN34GATH*2	ARXN36GATH*2	ARXN45GATH*2					
Floor	Floor (Same as Ceiling models)				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH									
	Slim Concealed Floor (Same as Slim Duct models)		ARXD07GATH	ARXD09GATH	ARXD12GATH	ARXD14GATH	ARXD18GATH	ARXD24GATH									
Ceiling	Ceiling				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH	ABHA30GATH		ABHA36GATH	ABHA45GATH	ABHA54GATH				
Wall Mounted	Wall Mounted		ASHA07GATH	ASHA09GATH	ASHA12GATH	ASHA14GATH	ASHA18GATH	ASHA24GATH	ASHA30GATH								

*1:ARXC60/72/90/96 cannot be connected to J-III tropical Series. *2:Large Airflow Duct can be connected to V-III tropical Series only.

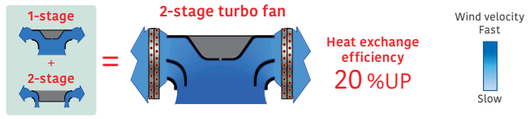
Compact Cassette

DC FAN

2-stage turbo fan

High efficiency design by 2 stage structure

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



Previous turbo fan

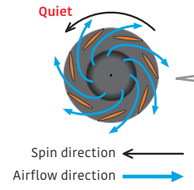
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.

Quiet quality

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

Designed by CFD-analysis (fluid) simulations

Adoption of laminar wing



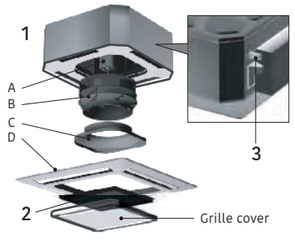
Laminar wing

Airflow runs through smoothly along the laminar wing

Quiet

No airflow separation

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.

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)	
	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: AUXB09GATH / AUXB12GATH / AUXB14GATH
AUXB18GATH / AUXB24GATH

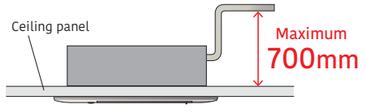
Specifications

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

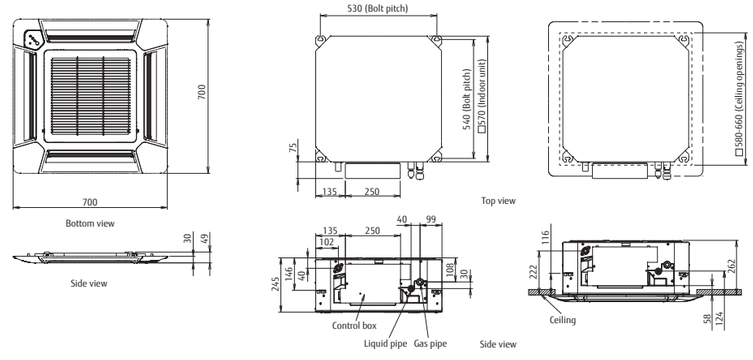
Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor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

Optional parts

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



Dimensions (Unit: mm)



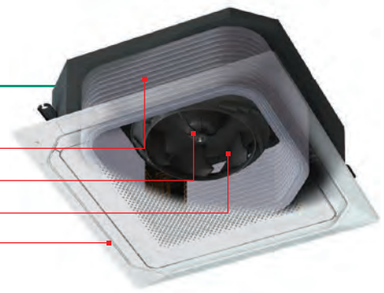
Cassette Slim/Large type

Circular Flow

DC FAN

Unique Circular Flow design

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



Uniform temperature air conditioning

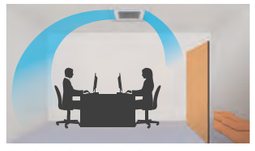
Achieve a comfortable air conditioning spread to every corner of the room by circular flow & wide vertical airflow.

Individual louver control

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

* Touch Panel Wired RC (UTY-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.



Efficient air conditioning based on the room layout

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 selected.

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

Human sensor (Optional)

2 modes can be selected

Auto saving	Power is saved while people are away.
Auto OFF	Operation stops after people go out.

Model: (Slim type)
AUXM018GTAH / AUXM024GTAH

(Large type)
AUXK018GTAH / AUXK024GTAH / AUXK030GTAH
AUXK034GTAH / AUXK036GTAH / AUXK045GTAH
AUXK054GTAH

Slim type
AUXM018/024GTAH

Large type
AUXK018/024/030/034/036/045/054GTAH

Specifications

Model name			AUXM018 GTAH	AUXM024 GTAH	AUXK018 GTAH	AUXK024 GTAH	AUXK030 GTAH	AUXK034 GTAH	AUXK036 GTAH	AUXK045 GTAH	AUXK054 GTAH
Power source			Single phase, 220-240V, 60Hz								
Capacity	Cooling	kW	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating		6.3	8.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	20	25	40	40	47	47	61	89	116
Airflow rate	High	m^3/h	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
	Med		900	930	1,300	1,300	1,340	1,340	1,400	1,500	1,590
	Med-Low		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
Sound pressure level	High	dB (A)	33	35	38	38	39	39	41	44	47
	Med-High		32	33	37	37	38	38	40	42	45
	Med		31	32	36	36	37	37	38	40	42
	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	288×840×840
Weight		kg	24.0	24.5	26.5	26.5	29.5	29.5	29.5	29.5	29.5
Connection pipe diameter	Liquid (Flare)	mm	6.35	9.52	6.35	9.52	9.52	9.52	9.52	9.52	9.52
	Gas (Flare)		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								
Cassette Grille	Model name		UTG-UKGD-W/UTG-UKGA-B								
	Dimensions (H×W×D)	mm	53×950×950								
	Weight	kg	6.0								

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

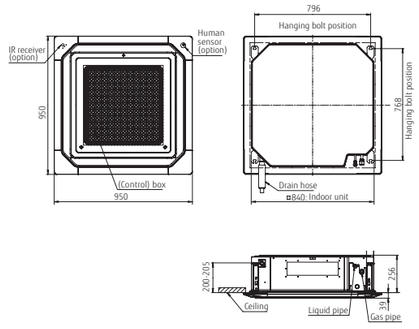
When AUX*018GTAH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/Ø15.88 (Liq/Gas)
When AUXK036GTAH is connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø19.05.

Optional parts

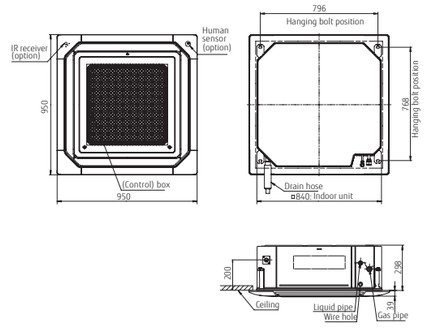
Human Sensor Kit:	UTY-SHZXC	Cassette Grille:	UTG-UKGD-W	Air Outlet Shutter Plate:	UTR-YDZK
Wide Panel:	UTG-AKXA-W		UTG-UKGA-B	Insulation Kit for High Humidity:	UTZ-KXRA
Panel Spacer:	UTG-BKXA-W	IR Receiver Unit:	UTY-LBHXD		

Dimensions (Unit: mm)

Models: AUXM018 / AUXM024



Models: AUXK018 / AUXK024 / AUXK030 / AUXK034
AUXK036 / AUXK045 / AUXK054



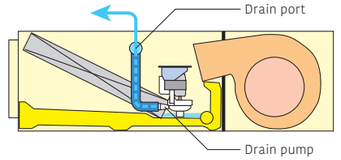
Slim Duct/ Slim Concealed Floor

(With drain pump)

DC FAN

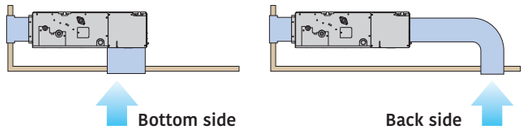
Slim design

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



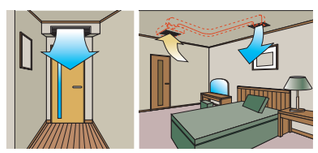
Air-intake

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



Flexible installation

Ceiling concealed



Floor concealed

Selectable with a wide range of static pressure

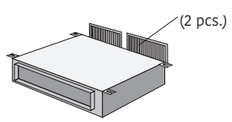
By using DC fan motor, it is possible to change of static pressure range 0 to 90 Pa. The change of static pressure range is possible by remote controller.

Static pressure range
0 to 90 Pa

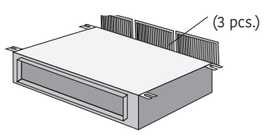
*24 model is 0 to 50 Pa

Filter (Accessory)

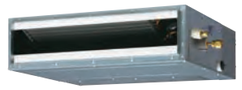
ARXD07 / 09 / 12 / 14 / 18



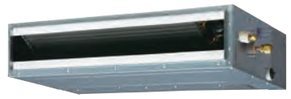
ARXD24



Model: ARXD07GATH / ARXD09GATH / ARXD12GATH
ARXD14GATH / ARXD18GATH / ARXD24GATH



ARXD07/09/12/14GATH



ARXD18GATH

ARXD24GATH

Slim Concealed Floor

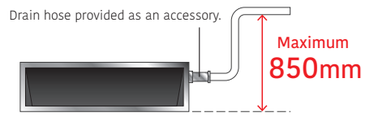
Specifications

Model name			ARXD07GATH	ARXD09GATH	ARXD12GATH	ARXD14GATH	ARXD18GATH	ARXD24GATH
Power source			Single phase, 220-240V, 60Hz					
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
Airflow rate	High	m^3/h (l/s)	550 (153)	600 (167)	600 (167)	800 (222)	940 (261)	1,330 (369)
	Med		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		Pa	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
Sound pressure level	High	dB (A)	28	29	30	34	34	35
	Med		25	26	27	32	32	32
	Low		22	24	24	28	28	29
Dimensions (H × W × D)		mm	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 900 × 620	198 × 1,100 × 620
Weight		kg(lbs)	17 (37)	17 (37)	18 (40)	18 (40)	22 (48)	26 (57)
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	9.52	9.52
	Gas (Flare)		12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32					

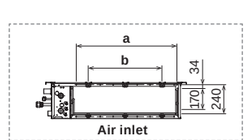
Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor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

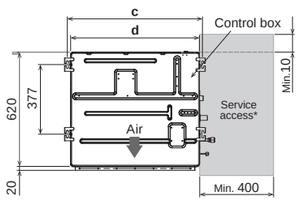
Optional parts

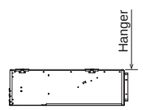
Auto louvre grille kit: UTD-GXTA-W (for ARXD07 - 14)
UTD-GXTB-W (for ARXD18)
UTD-GXTC-W (for ARXD24)
Remote Sensor Unit : UTY-XSZX
IR Receiver Unit : UTB-YWC

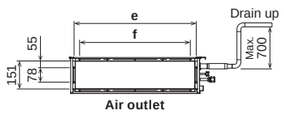


Dimensions (Unit: mm)



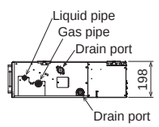






	ARXD07-14 GATH	ARXD18 GATH	ARXD24 GATH
a	574	774	974
b	P200×2=400	P200×3=600	P200x4=800
c	734	934	1,134
d	700	900	1,100
e	650	850	1,050
f	P100×6=600	P100×8=800	P100×10=1,000

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

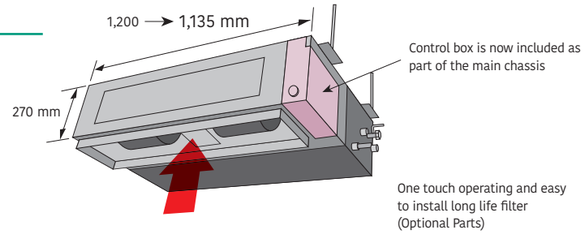


Medium Static Pressure Duct

DC FAN

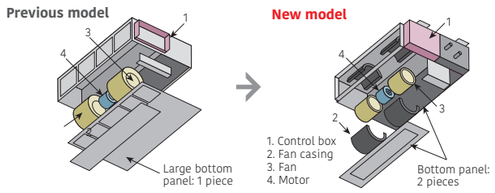
Slim & Compact design

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.



Easy maintenance

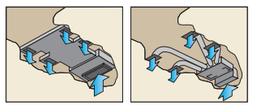
See below for the case of rear suction type



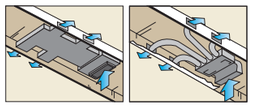
Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while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

Installation styles

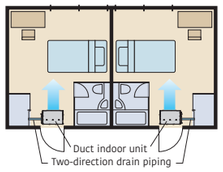
Embedded in Ceiling



Hanging from Ceiling

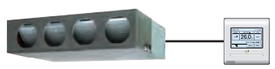


Two-direction drain piping



Easy setting by using remote controller

The change of static pressure range is possible by remote controller



Selectable with a wide range of static pressure

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

Static pressure range
0 to 150 Pa

Model: ARXA24GBTH / ARXA30GBTH
ARXA36GBTH / ARXA45GBTH

Specifications

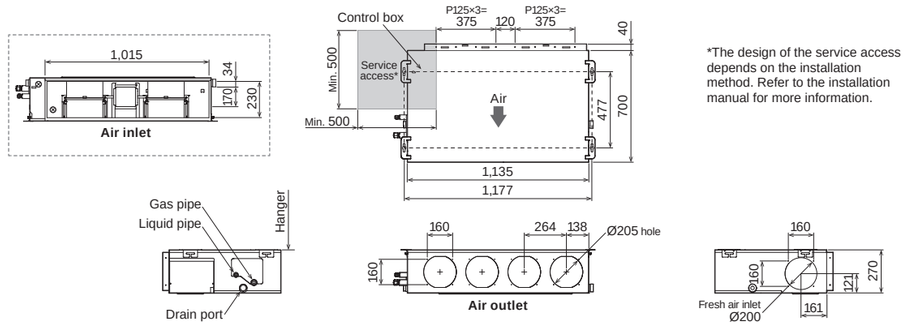
Model name			ARXA24GBTH	ARXA30GBTH	ARXA36GBTH	ARXA45GBTH
Power source			Single phase, 220-240V, 60Hz			
Capacity	Cooling	kW	7.1	9.0	11.2	12.5
	Heating		8.0	10.0	12.5	14.0
Input power		W	94	108	194	240
Airflow rate	High	m^3/h (l/s)	1,280 (356)	1,410 (392)	1,840 (511)	1,970 (547)
	Med		990 (275)	1,280 (356)	1,600 (444)	1,860 (517)
	Low		840 (233)	1,150 (319)	1,470 (408)	1,640 (456)
Static pressure range		Pa	30 to 150	30 to 150	30 to 150	30 to 150
Standard static pressure			100	100	100	100
Sound pressure level	High	dB (A)	31	34	37	41
	Med		27	32	35	38
	Low		23	29	33	36
Dimensions (H × W × D)		mm	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700
Weight		kg(lbs)	39 (86)	42 (93)	42 (93)	42 (93)
Connection pipe diameter	Liquid (Flare)	mm	9.52	9.52	9.52	9.52
	Gas (Flare)		15.88	15.88	19.05	19.05
Drain hose diameter (I.D./O.D.)			25 / 32			

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

Optional parts

Remote Sensor Unit : UTY-XSZX
Long Life Filter : UTD-LF25NA
Flange (Square) : UTD-SF045T
Flange (Round) : UTD-RF204
IR Receiver Unit : UTB-YWC
Drain Pump Unit : UTZ-PX1NBA

Dimensions (Unit: mm)



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

High Static Pressure Duct

DC FAN

Static pressure selection

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

Maximum 200 Pa

(ARXC36 type)

Maximum 300 Pa

(ARXC72 / 90 type)

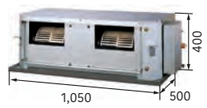
Maximum 300 Pa

(ARXC96 type)

Easy installation (Compact size & Lightweight)

(Unit: mm)

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



(ARXC36 type)

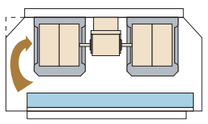
(ARXC72 / 90 type)

(ARXC96 type)

Low noise

Models : ARXC36

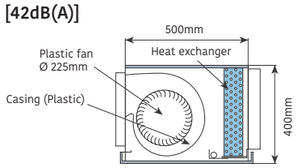
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



New model
(ARXC36GBTH)

ARXC36GBTH : Plastic fan [42dB(A)]

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



Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.

(ARXC36 type)

(ARXC72 / 90 / 96 type)

Model: ARXC36GBTH
ARXC72GBTH / ARXC90GBTH
ARXC96GATH

ARXC36GBTH

ARXC72/90GBTH

ARXC96GATH

Specifications

Model name			ARXC36GBTH	ARXC72GBTH	ARXC90GBTH	ARXC96GATH
Power source			Single phase, 220-240V, 60Hz			
Capacity	Cooling	kW	11.2	22.4	25.0	28.0
	Heating		12.5	25.0	28.0	31.5
Input power		W	207	681	819	838
Airflow rate	High	m^3/h (l/s)	1,990 (553)	3,900 (1,083)	4,300 (1,195)	4,850 (1,347)
	Med		1,680 (467)	3,300 (917)	4,000 (1,111)	4,250 (1,181)
	Low		1,330 (369)	3,000 (833)	3,500 (972)	3,600 (1,000)
Static pressure range		Pa	0 to 200	0 to 300	0 to 300	0 to 300
Standard static pressure			100	150	150	150
Sound pressure level	High	dB (A)	42	47	48	48
	Med		36	43	46	45
	Low		32	40	44	42
Dimensions (H × W × D)		mm	400 × 1,050 × 500	450 × 1,587 × 700	450 × 1,587 × 700	550 × 1,587 × 700
Weight		kg(lbs)	40 (88)	84(185)	84(185)	105(231)
Connection pipe diameter	Liquid	mm	9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)	12.70 (Brazing)
	Gas		19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)	22.22 (Brazing)
Drain hose diameter (I.D./O.D.)			25 / 32			

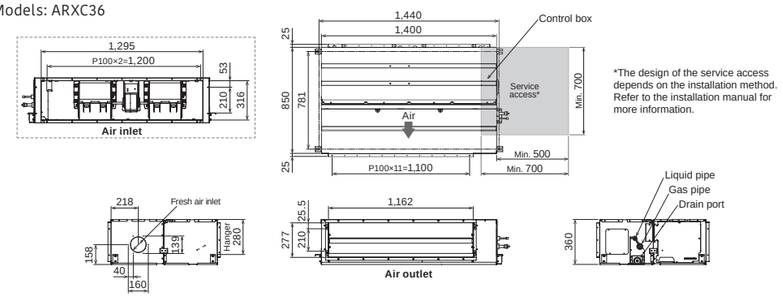
Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor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

Optional parts

Long-Life Filter : UTD-LF60KA (For ARXC36)
IR Receiver Unit : UTB-YWC
Remote Sensor Unit : UTY-XSZX

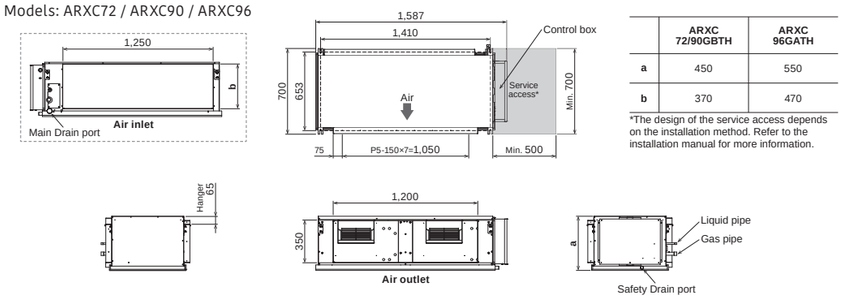
Dimensions (Unit: mm)

Models: ARXC36



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

Models: ARXC72 / ARXC90 / ARXC96



	ARXC 72/90GBTH	ARXC 96GATH
a	450	550
b	370	470

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

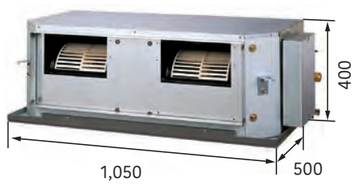
High Static Pressure Duct

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.

(Unit: mm)



Static pressure selection

Models : ARKC45 / ARKC60

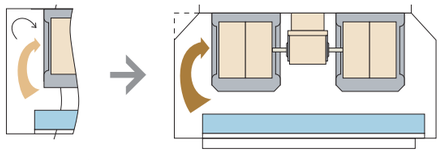
2 Types of static pressure mode are selectable.

Maximum
250 Pa

Low noise

Models : ARKC45 / ARKC60

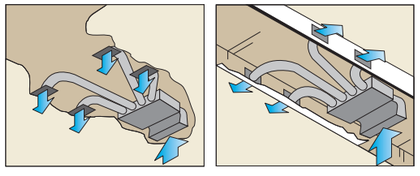
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



Previous model

New model

Installation styles



Model: ARKC45GATH / ARKC60GATH

Specifications

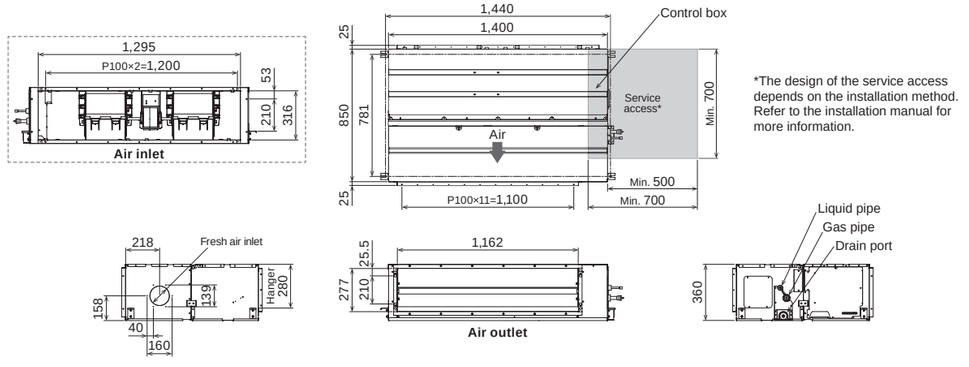
Model name			ARKC45GATH	ARKC60GATH
Power source			Single phase, 220-240V, 60Hz	
Capacity	Cooling	kW	12.5	18.0
	Heating		14.0	20.0
Input power		W	715	730
Airflow rate	High	m^3/h (l/s)	3,500 (972)	3,500 (972)
	Med		3,000 (833)	3,000 (833)
	Low		2,460 (683)	2,460 (683)
Static pressure range		Pa	100 to 250	100 to 250
Standard static pressure			100	100
Sound pressure level	High	dB (A)	49	49
	Med		45	45
	Low		42	42
Dimensions (H × W × D)		mm	400 × 1,050 × 500	400 × 1,050 × 500
Weight		kg(lbs)	46 (101)	46 (101)
Connection pipe diameter	Liquid (Flare)	mm	9.52 (Flare)	9.52 (Flare)
	Gas (Flare)		19.05 (Flare)	19.05 (Flare)
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

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

Dimensions (Unit: mm)



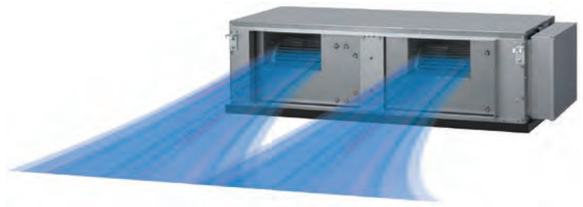
*The design of the service access depends on the installation method. Refer to the installation manual for more information.

Large Airflow Duct

DC FAN

Large airflow volume

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

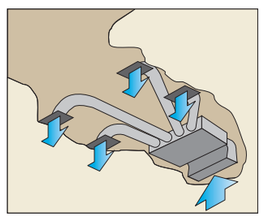


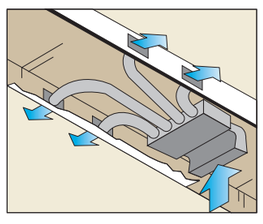
Selectable with a wide range of static pressure

Static pressure range
50 to 250 Pa
(30 / 34class)

Static pressure range
50 to 300 Pa
(36 / 45class)

Installation styles





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

Specifications

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

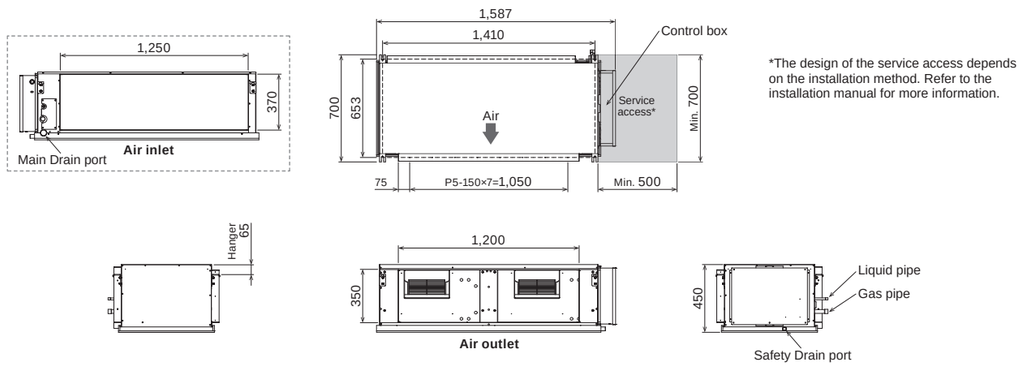
Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor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

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

Optional parts

Remote Sensor Unit : UTY-XSZX

Dimensions (Unit: mm)



Floor/Ceiling

DC FAN

Flexible installation

Example for floor installation

Floor console

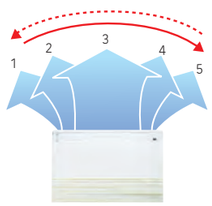
Example for ceiling installation

Under ceiling

Double auto swing

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

Left/Right Swing



Up/Down Swing

4 steps selectable

High power DC fan motor

- High power
- Wide rotation range
- High efficiency

Compact design

(Unit: mm)

Symmetrical, slim and compact design.

Model: ABHA12GATH / ABHA14GATH
ABHA18GATH / ABHA24GATH

Floor standing

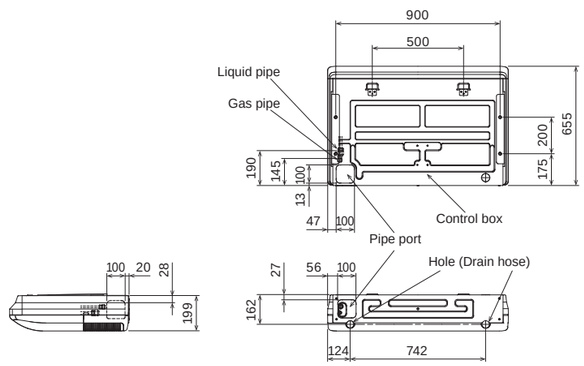
Specifications

Model name			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH
Power source			Single phase, 220-240V, 60Hz			
Capacity	Cooling	kW	3.6	4.5	5.6	7.1
	Heating		4.0	5.0	6.3	8.0
Input power		W	30	42	74	99
Airflow rate	High	m^3/h (l/s)	660 (183)	780 (216)	1,000 (277)	1,000 (277)
	Med		570 (158)	640 (177)	720 (199)	820 (227)
	Low		490 (136)	550 (152)	580 (161)	680 (188)
Sound pressure level	High	dB (A)	36	40	46	47
	Med		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 pipe diameter	Liquid (Flare)	mm	6.35	6.35	9.52	9.52
	Gas (Flare)		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)

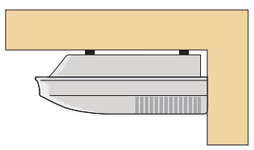


Ceiling

DC FAN

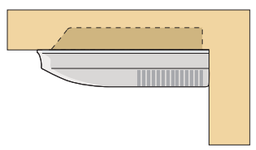
Installation

Open



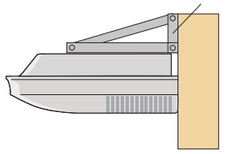
General installation pattern which suspends the indoor unit from the ceiling.

Concealed



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

Wall mounted (Field Supplied)



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

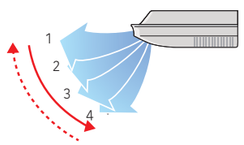
Double auto swing and wide airflow

Auto airflow direction and auto swing

Left/Right

5 steps selectable

Up/Down



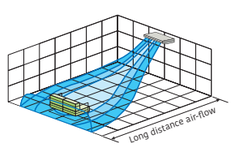
4 steps selectable

High power DC fan motor

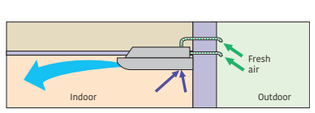
- High power
- Wide rotation range
- High efficiency

Long airflow

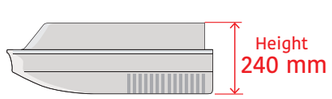
Long Airflow ensures comfort to every corner of a large room.



Fresh air intake



Slim & Compact design



Model: ABHA30GATH / ABHA36GATH
ABHA45GATH / ABHA54GATH

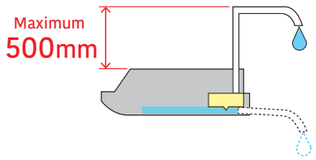
Specifications

Model name			ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH
Power source			Single phase, 220-240V, 60Hz			
Capacity	Cooling	kW	9.0	11.2	12.5	14.0
	Heating		10.0	12.5	14.0	16.0
Input power		W	66	85	131	180
Airflow rate	High	m^3/h (l/s)	1,630 (452)	1,690 (469)	2,010 (558)	2,270 (629)
	Med		1,370 (379)	1,400 (389)	1,600 (444)	1,780 (493)
	Low		1,140 (316)	1,170 (325)	1,230 (342)	1,280 (355)
Sound pressure level	High	dB (A)	42	45	48	51
	Med		38	38	42	45
	Low		33	34	35	36
Dimensions (H × W × D)		mm	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700
Weight		kg(lbs)	46 (101)	48 (106)	48 (106)	48 (106)
Connection pipe diameter	Liquid (Flare)	mm	9.52	9.52	9.52	9.52
	Gas (Flare)		15.88	19.05	19.05	19.05
Drain hose diameter (I.D./O.D.)			25 / 32			

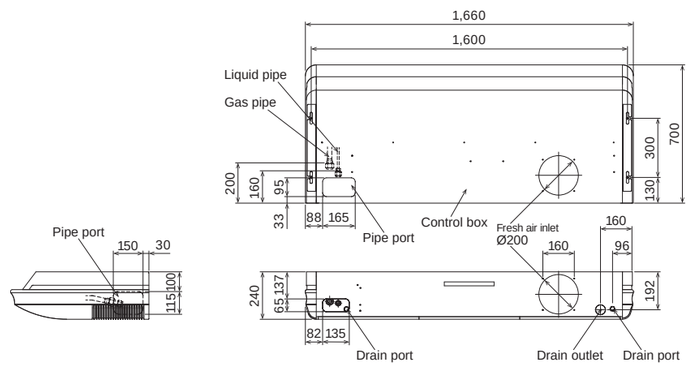
Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor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

Optional parts

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



Dimensions (Unit: mm)



Wall-mounted type

DC FAN

Filter features

High performance filter provides high quality air conditioning

Long-life* Ion Deodorization Filter

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

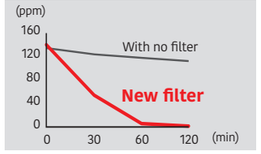
(*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)

Apple-catechin Filter

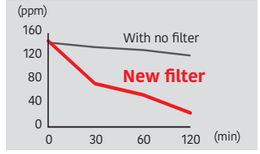
Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.

Deodorizing effect (Odor reduction rate)

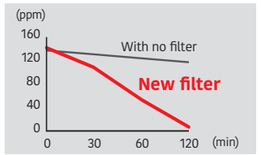
Ammonia



Trimethylamine



Hydrogen sulfate

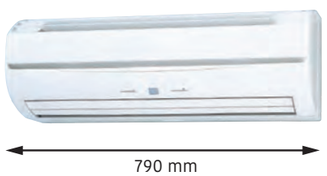


High performance filters have been thoroughly tested by the Environmental Sanitary Inspection Center using an advanced Deodorization Test.

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.



Width
790 mm

High power DC fan motor

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

Easy maintenance

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

Open panel

Model: (EEV internal)
ASHA07GATH / ASHA09GATH
ASHA12GATH / ASHA14GATH

Specifications

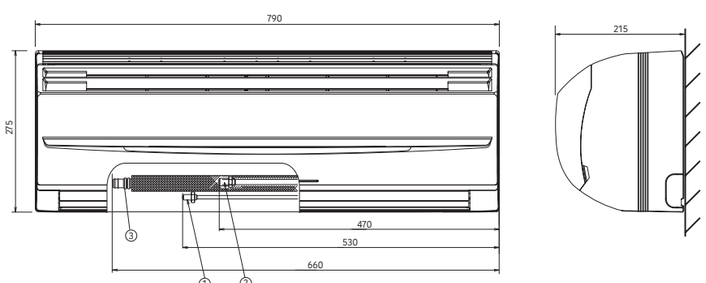
Model name			ASHA07GATH	ASHA09GATH	ASHA12GATH	ASHA14GATH
Power source			Single phase, 220-240V, 60Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5
	Heating		2.8	3.2	4.1	5.0
Input power		W	17	18	22	34
Airflow rate	High	m^3/h (l/s)	490 (136)	500 (139)	560 (156)	670 (186)
	Med		450 (125)	450 (125)	480 (133)	490 (136)
	Low		370/420*1 (103/117*1)	370/420*1 (103/117*1)	420 (117)	420 (117)
Sound pressure level	High	dB (A)	35	36	39	44
	Med		33	33	35	37
	Low		27 / 31*1	27 / 31*1	31	32
Dimensions (H × W × D)		mm	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215
Weight		kg(lbs)	9 (20)	9 (20)	9 (20)	9 (20)
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35
	Gas (Flare)		12.70	12.70	12.70	12.70
Drain hose diameter (I.D./O.D.)			13.8 / 15.8 to 16.7			

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

*1 : This value is under cooling operation.

Optional parts

Dimensions (Unit: mm)



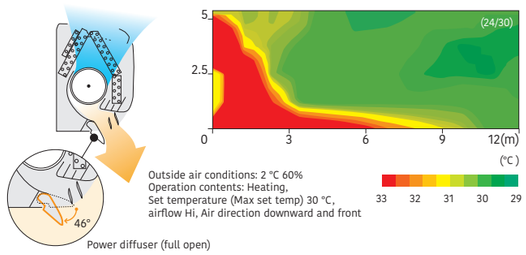
① Refrigerant piping flare connection (Liqui
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Wall-mounted type

DC FAN

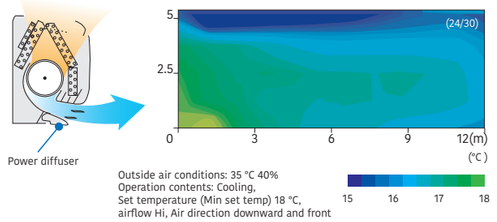
More comfort airflow by adopting power diffuser

“Vertical airflow” provides powerful floor level heating



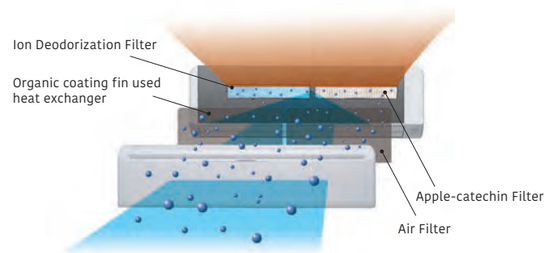
Outside air conditions: 2 °C 60%
Operation contents: Heating,
Set temperature (Max set temp) 30 °C,
airflow Hi, Air direction downward and front

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



Outside air conditions: 35 °C 40%
Operation contents: Cooling,
Set temperature (Min set temp) 18 °C,
airflow Hi, Air direction downward and front

Air conditioner filter features



High quality air conditioning by incorporation of high performance filter.

Ion Deodorization Filter

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

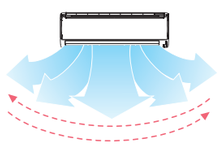
Apple-catechin Filter

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

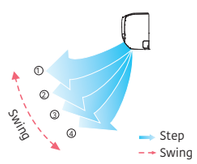
Double auto swing

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

5 steps selectable



4 steps selectable



Model: ASHA18GATH / ASHA24GATH / ASHA30GATH

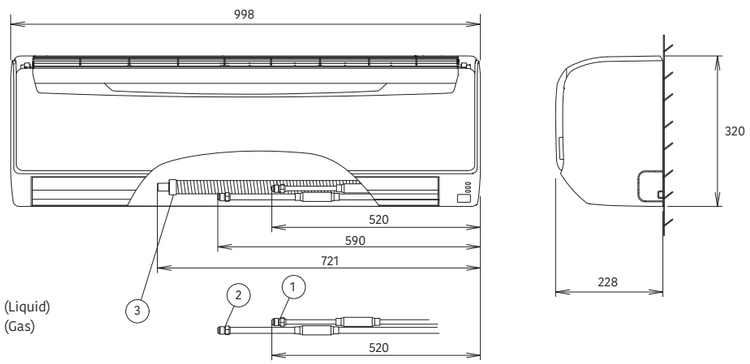
Specifications

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

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

Optional parts

Dimensions (Unit: mm)



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

VRF CONTROL SYSTEMS

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

Type	Individual Control	Centralized Control		Integrating Control (Interface)		
						
	Wired Remote Controller	Central Remote Controller	System Controller	Network Converter for LONWORKS®	MODBUS® Converter	KNX® Convertor
	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.)	●	●	●			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)		●	●	●	●	●
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				●	●	●

HOTEL

Type	Individual Control			Centralized Control		Integrating Control (Interface)				
										
	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-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				●	●	●	●	●	●	
Limited control for hotel guests				●	●	●	●	●	●	
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						●	●	●	●	
Interlock with window contact										●
Interlock with key-card										●

OFFICE

Type	Individual Control			Centralized Control		Integrating Control (Interface)				
										
	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-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.

Air Conditioning
Individual Control

Wired Remote Controller
(Touch panel)
UTY-RNRGZ5

Wired Remote Controller
UTY-RLRG

Compact
Wired Remote Controller
UTY-RCRGZ1
UTY-RCRGZ1K

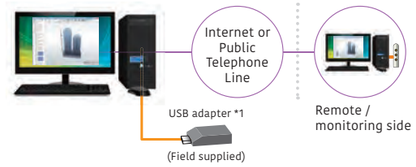
Simple Remote Controller
UTY-RSRG
UTY-RHRG Without operation mode

Wireless Remote Controller
UTY-LNHGU

IR Receiver Unit
UTB-YWC For Duct type

IR Receiver Unit
UTY-LBHXD For Circular Flow Cassette

Air Conditioning
Centralised Control



System controller Software
UTY-APGXZ1
UTY-ALGXZ1 (Lite edition)

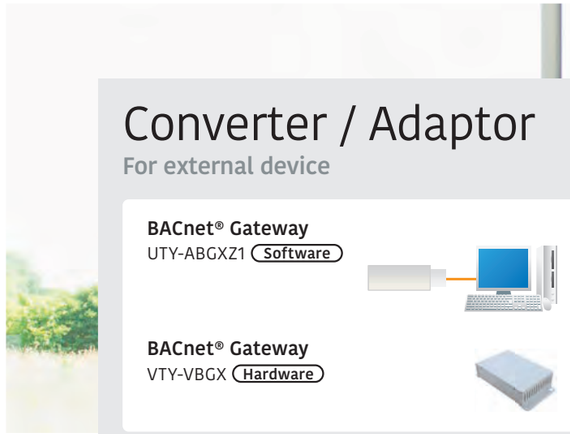
Maximum controllable
1600* indoor units

* Lite edition is maximum controllable 400 indoor units

NEW

Central Remote Controller
UTY-DCGGZ3

Maximum controllable
100 indoor units



Converter / Adaptor
For external device

BACnet® Gateway
UTY-ABGXZ1 Software

BACnet® Gateway
VTY-VBGX Hardware

Network Converter For LonWorks®
UTY-VLGX

MODBUS® Converter
UTY-VMGX Hardware

MODBUS® Interface
FJ-RC-MBS-1

KNX® Converter
UTY-VKGX Hardware

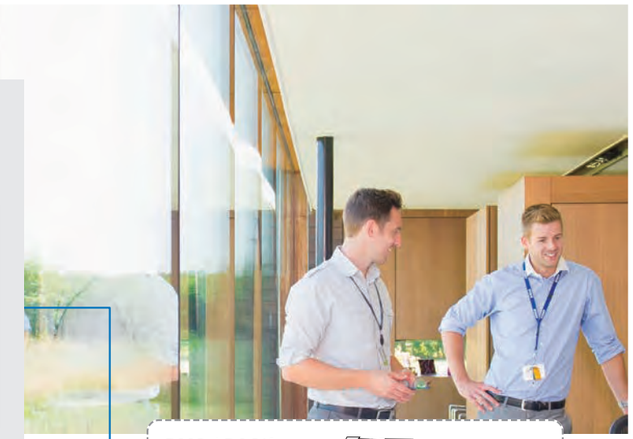
KNX® Interface
FJ-RC-KNX-1i

Wireless LAN Adapter
FJ-RC-WIFI-1

External Switch Controller
UTY-TERX

Card-key
(Field supplied)

Internet device



BMS / BAS*2

BMS, Home automation system

*1. USB Adaptor: Echelon™ U10 USB Network Interface
*2. BMS/BAS: Building Management System/Building Automation System

Converter / Adaptor
For system expansion

Network Converter
(DC power supply)
UTY-VTGX

Network Converter
(AC power supply)
UTY-VTGXV

Signal Amplifier
UTY-VSGXZ1

Thermostat Converter
UTY-TTRXZ1

COMPARISON TABLE OF CONTROLLERS

Item			 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 (Software)	 System Controller (Software)
Model name			UTY-RNRGZ5	UTY-RLRG	UTY-RCRGZ1	UTY-RCRGZ1	UTY-RSRG	UTY-RHRG	UTY-LNHGU	UTY-DCGGZ3	UTY-ALGXZ1	UTY-APGXZ1
Max. controllable remote controller groups			1	1	1	1	1	1	1	100	400	1600
Max. controllable indoor units			16	16	1	1	16	16	16	100	400	1600
Max. controllable groups			–	–	–	–	–	–	–	50	400	1600
Air conditioning control function	On / Off		●	●	●	●	●	●	●	●	●	●
	Operation mode setting		●	●	●	●	●	–	●	●	●	●
	Fan speed setting		●	●	●	●	●	●	●	●	●	●
	Room temp. setting		●	●	●	●	●	●	●	●	●	●
	Room temp. set point limitation		●	●	–	–	●	●	–	●	●	●
	Test operation		●	●	●	●	●	●	●	–	–	–
	Up/down air direction flap setting		●	●	●	●	●	●	●	●	●	●
	Right/left air direction flap setting		●	●	●	●	–	–	●	●	●	●
	Individual louver control		●	–	●	●	–	–	–	●*4	–	–
	Group setting		–	–	–	–	–	–	–	●	●	●
	RC prohibition		–	–	–	–	–	–	–	●	●	●
	Anti freeze setting		●	–	●	●	–	–	–	●	●	●
	Set temp. auto return		●	●	–	–	–	–	–	–	–	–
	Economy mode setting		●	●	●	●	–	–	●	●	●	●
	Human sensor control		●	–	–	–	–	–	–	●	●	●
Display	Error		●	●	●	●	●	●	–	●	●	●
	Defrosting		●	●	●	●	●	●	–	●	●	●
	Current time		●	●	–	–	–	–	●	●	●	●
	Day of the week		●	●	–	–	–	–	–	●	●	●
	R.C. prohibition		●	●	●	●	●	●	–	●	●	●
	Address display		●	●	●	●	●	●	–	–	●	●
	Room temp		●	–	●	●	●	●	–	●*3	●*3	●*3
	Multi-language		●	–	–	–	–	–	–	●	●	●
	Summer time		●	–	–	–	–	–	–	●	●	●
	Name registration		●	–	–	–	–	–	–	●	●	●
	Backlight		●	–	●	●	●	●	–	●	–	–
	2D floor layout / 3D building display		–	–	–	–	–	–	–	–	–	●
	Refrigerant leakage detection function		–	–	–	–	–	–	–	●	●	●
Timer	Schedule timer	Period	Week	Week	–	–	–	–	–	Week	Year	Year
		On/off, Temp, Mode, Low noise mode*5, Times per day	8	4	–	–	–	–	–	20	144	144
	On/off timer		●	●	● (OFF only)	● (OFF only)	–	–	●	–	–	–
	Sleep timer		–	–	–	–	–	–	●	–	–	–
	Program timer		–	–	–	–	–	–	●	–	–	–
	Auto off timer		●	●	–	–	–	–	–	●	–	–
	Day off		●	●	–	–	–	–	–	●	●	●
	Min. unit of timer setting (Minutes)		10 • 30	30	–	–	–	–	5	10	10	10
Control	Status monitoring system		–	–	–	–	–	–	–	●	●	●
	Electricity charge apportionment		–	–	–	–	–	–	–	–	○	●
	Error history		●	●	–	–	–	–	–	●	●	●
	Emergency stop		–	–	–	–	–	–	–	●*2	–	–
	Remote management		–	–	–	–	–	–	–	●	○	●
	Energy saving management		–	–	–	–	–	–	–	–	○	○
	E-mail notification for malfunction		–	–	–	–	–	–	–	●	●	●
	Key lock		● Child lock	● Child lock	–	–	–	–	–	● Password setting	● Password setting	● Password setting
	Low noise mode		–	–	–	–	–	–	–	–	●	●

*1 "Operation mode" setting is not available for this model.
*2 This function is available only through external input control.
*3 This function is available only when using wired remote controller.
*4 Equipped only with individual air volume batch reset.
*5 UTY-DCGGZ3 only

●: Supported ○: Optional function – : Not supported yet

Wired remote controller (with touch panel)

UTY-RNRGZ5

Up to
16 indoor units
Up to
1 group

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

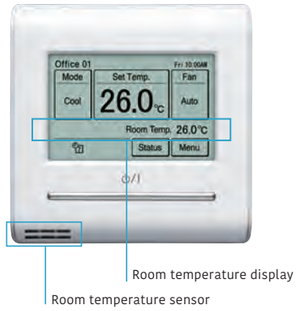
- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer (ON/OFF, Temp., Mode)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 12 different languages
  (English, Chinese, French, German, Spanish, Russian,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



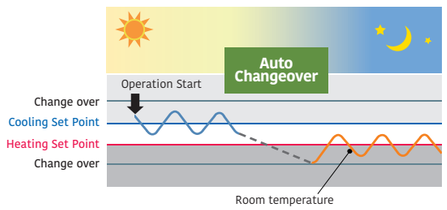
Various energy saving control

Custom Auto

- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.

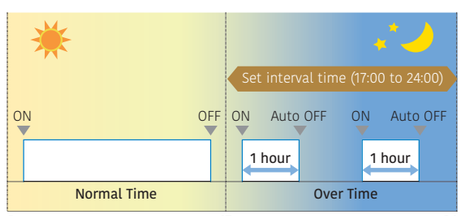
* This function is not available for some models.

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



Auto OFF timer

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



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

2 schedules Weekly Timer

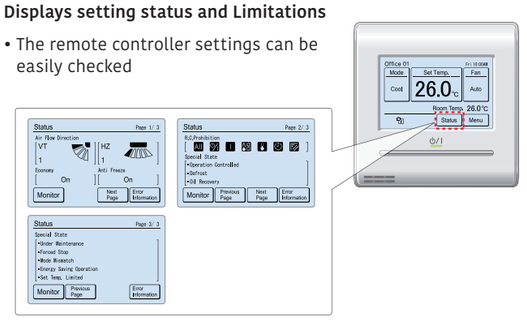
Set Temperature Auto Return

Set Temperature Upper and Lower Limit Setting

Various energy saving control

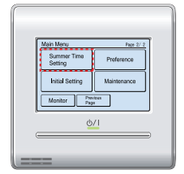
Displays setting status and Limitations

- The remote controller settings can be easily checked



Summer Time display

- This function can be set easily from Menu screen



Child lock

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

Name Registration

- Remote controller names can be registered in the remote controller screen.This makes it easy to identify the indoor unit you want to control in the room.

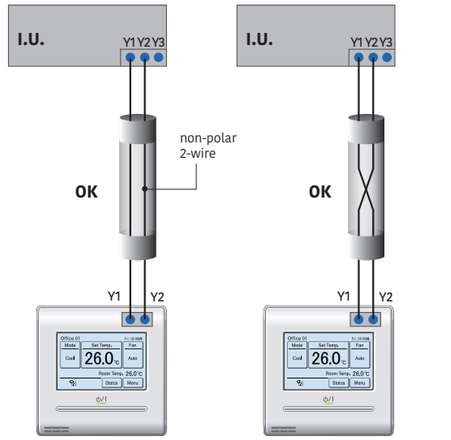
Backlight

- 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.

Simplified installation

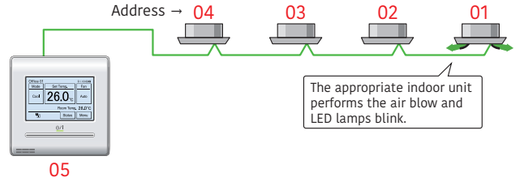
Uses non-polar 2-wire type

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



Auto Address Setting/Setting Position Notification

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



Easy Maintenance

Error History Display

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

Specifications

Model name		UTY-RNRGZ5
Power Supply		DC 12V
Dimensions (H x W x D)	mm	120 × 120 × 20.4
Weight	g	220

DC12V is supplied by indoor unit.

Wired remote controller

UTY-RLRG

Up to
16 indoor units
Up to
1 group

- 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.

Individual control + Thermo sensor + Weekly timer + Auto-off timer →

Visually intuitive operation

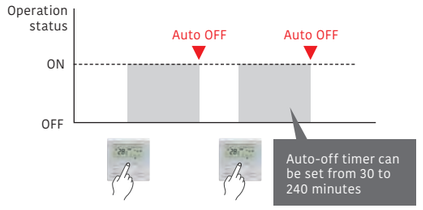
- The operation mode, set temperature, and fan speed are shown prominently on the top screen.
- Each function to be set is indicated by an icon.
- The control guide makes it simple and straightforward to operate a remote controller.

Settings can be displayed more clearly on a large LCD.

Sophisticated control buttons
Simple operation with easy 4-way navigation pad

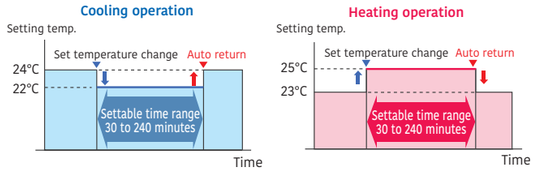
Auto-off timer

- 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 set temperature can be changed is 30 to 240 minutes.



Specifications

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

DC12V is supplied by indoor unit.

Compact wired remote controller

UTY-RCRGZ1 / UTY-RCRGZ1K

UTY-RCRGZ1

UTY-RCRGZ1K

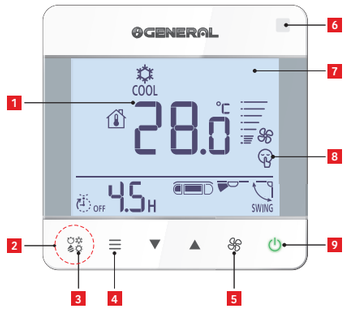
Up to
1 indoor units
Up to
1 group

- 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.
- 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

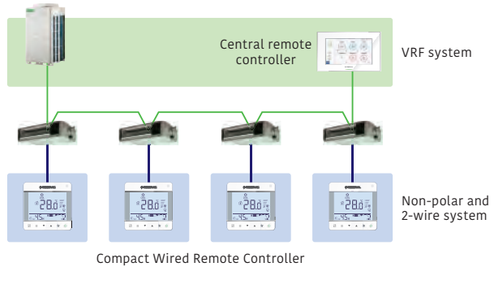
1 Visible large letter
2 Touch key (Frequently-used operation is placed on the direct button)
3 Operation mode
4 Menu
5 Air flow
6 **Built in IR reciever**
7 LCD with backlight is clearly visible in the dark
8 Easy-to-understand pictograph display
9 LED is mounted for the ON/OFF key (Green light on when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



System overview

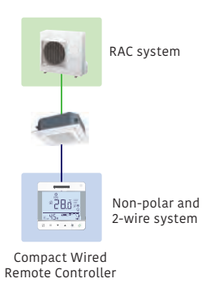
• VRF connection

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



• RAC (Room air conditioner) connection

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



Specifications

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

DC12V is supplied by indoor unit.

Simple remote controller

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

UTY-RSRG

UTY-RHRG (Without operation mode)

Up to
16 indoor units
Up to
1 group

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

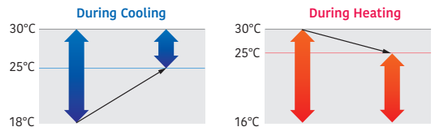
Corresponding to various applications

- **Vertical louver control:**

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

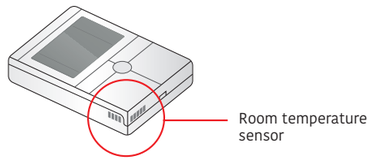
- **Room temperature set point limitation:**

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



- **Built in room temperature sensor:**

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



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	

Wireless remote controller

UTY-LNHGU

Up to
16 indoor units
Up to
1 group
Up to
4 different daily timers

Simple and sophisticated operations with a choice of 4 daily timers

- A single controller controls up to 16 indoor units.

Built-in daily timer

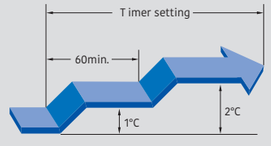
Select from 4 different timer programs : On / Off / Program / Sleep

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

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

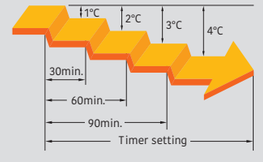
Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises 1°C every hour. The set temperature can rise up to a maximum of 2°C.



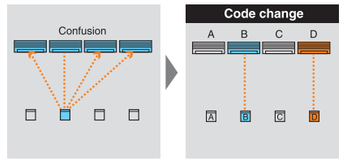
Heating operation

When the sleep timer is set, the set temperature automatically drops 1°C every 30 minutes. The set temperature can drop to a maximum of 4°C.



Easy installation and operation

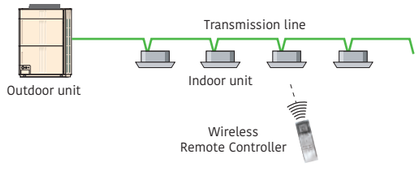
Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)



Wide and precise

Address setting

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



Specifications

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

IR receiver unit for duct type

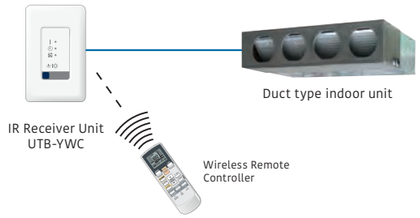
UTB-YWC

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

*Only Large Airflow Duct cannot be connected to IR Receiver Unit.

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

Wiring connection



Specifications

< Wireless Remote Controller >

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>

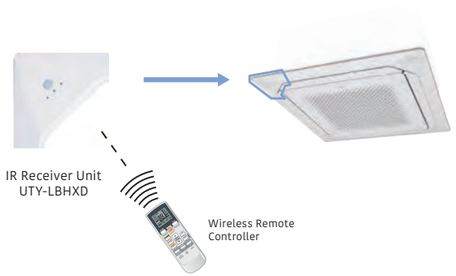
Battery		DC 5V
Dimensions (H x W x D)	mm	145 × 90 × 30
Weight	g	150

IR receiver unit for Cassette

UTY-LBHXD

Cassette type indoor unit can be controlled with Wireless Remote Controller

Wiring connection



Specifications

< Wireless Remote Controller >

Model name		UTY-LBHXD
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	193.9 × 193.9 × 31.2
Weight	g	140

NEW Central remote controller

UTY-DCGGZ3

Up to
100 indoor units
Up to
50 group

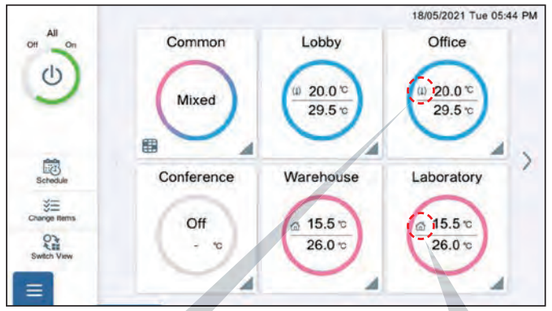
For tenants in small to midsize commercial premises

- 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.



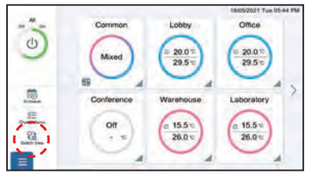
Not connected wired remote controller
: Indoor Unit Sensor
Thermistor

Connected wired remote controller
: Remote Controller Sensor / other sensors
Thermistor

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.

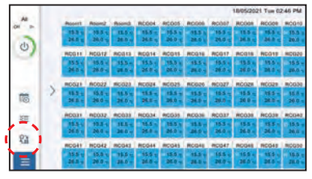
Group Display



Manage & Monitor
by each Groups

One-tap
to switch

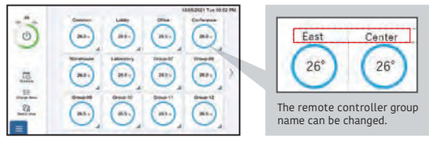
50 Remote Controller Groups Display



Manage & Monitor
by 50 Remote Controller Groups

Remote Controller Groups Rename

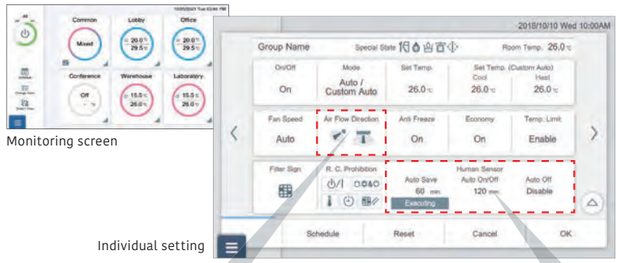
The remote controller group names can be changed. Users can know easily where the air conditioning is located by changing the remote controller group names.



The remote controller group name can be changed.

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.



Added individual wind direction control

Individual wind direction control has been added.

Circular Flow cassette / 3D Flow cassette

Circular flow cassette

Human Sensor Compatible

Human sensor setting

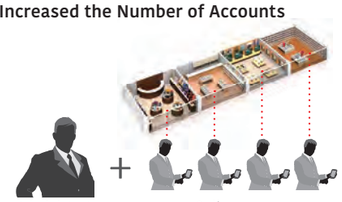
- Auto save
- Auto on / off
- Auto off detection time
- Enable and disable

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



Maximum
30
accounts

Administrator
(Building owner)

Online users
(Tenant owner)

Trouble support function

Display error details
Display descriptive explanation when an error occurs

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

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

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

NEW 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.

low noise schedule

Low noise operation of outdoor units can be scheduled.

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

Specifications

Model name		UTY-DCGGZ3
Power Supply		100-240 V 50 / 60 Hz
Dimensions (H x W x D)	mm	134.6 × 216.2 × 37.9
Weight	g	800

System controller

UTY-APGXZ1 Software

Up to
4 VRF network systems
Up to
400 outdoor units
Up to
1,600 indoor units

System controller enables advanced 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

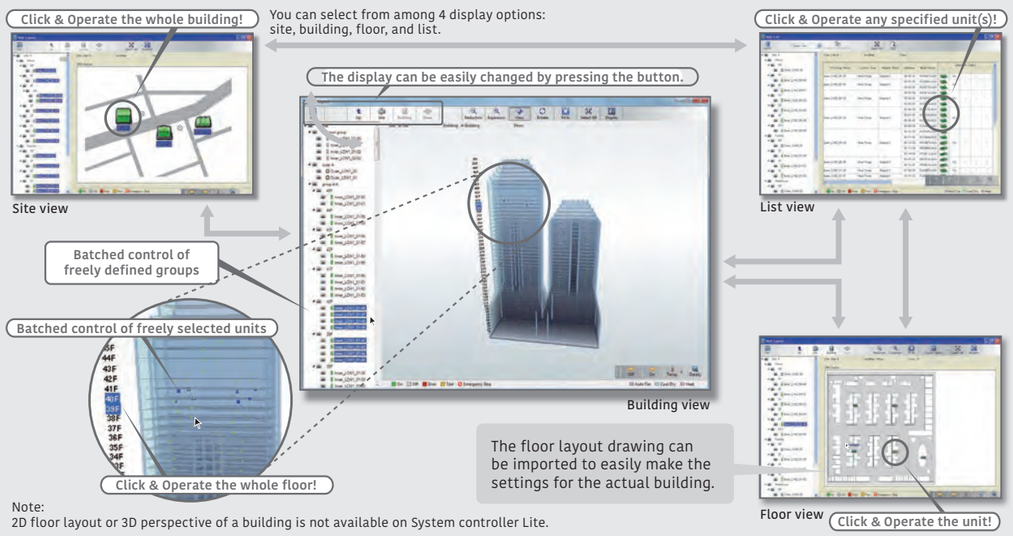
Up to
1 VRF network systems
Up to
100 outdoor units
Up to
400 indoor units

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.

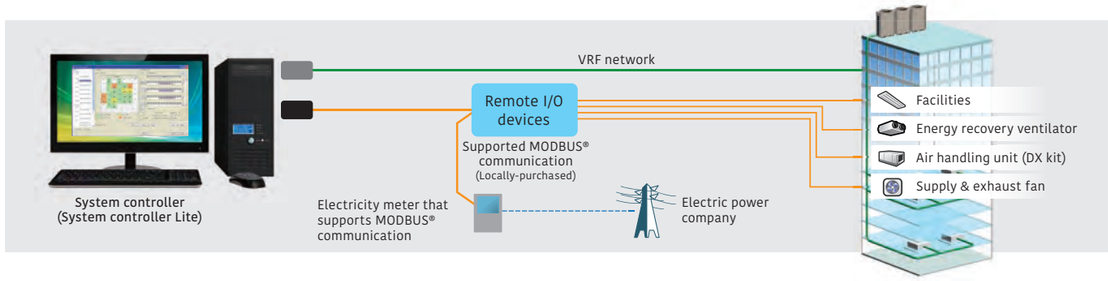


Note:
2D floor layout or 3D perspective of a building is not available on System controller Lite.

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.

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.

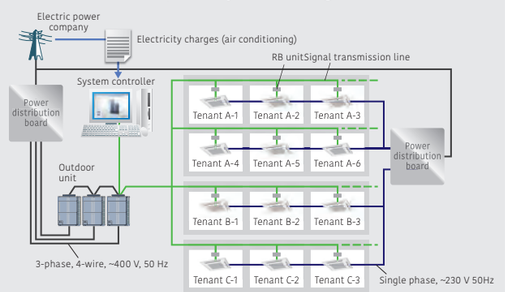
Electricity charge apportionment

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.

Example of system configuration



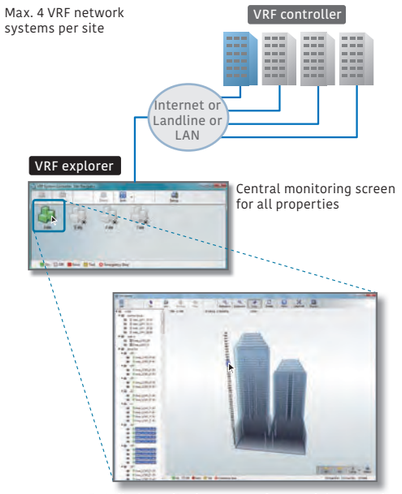
Features: System controller / System controller lite

Remote monitoring management

Standard on System controller
Option System controller Lite UTY-PLGXR2

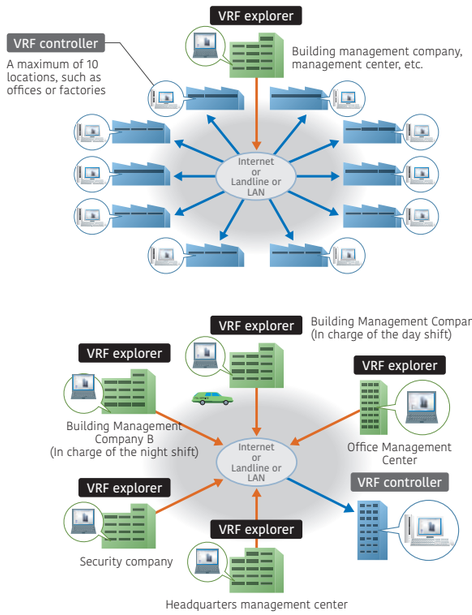
The System controller can be used on site or remotely over networks for remote central control.
The System controller requires 2 software programs working together: The VRF controller runs on site and communicates with the VRF system;
The VRF explorer, which runs at a remote location, provides a user 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.

On site central control



Detailed monitoring screen for special properties

Remote central control



Energy-saving management

Option System controller UTY-PEGXZ1
Option System controller Lite UTY-PLGXE2

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 energy-saving 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

Functions	Type		System controller		System controller Lite				
			UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
Specifications	Max. number of VRF networks supported		4	-	1	-	-	-	-
	Max. number of indoor unit and remote controller groups per VRF network		400	-	400	-	-	-	-
	Max. number of outdoor units per VRF network		100	-	100	-	-	-	-
	Max. number of indoor units and remote controller groups per System controller		1600	-	400	-	-	-	-
	Max. number of outdoor units per System controller		400	-	100	-	-	-	-
Site supervision	Multiple site display		10	-	10	-	-	-	-
	Number of buildings per site		20	-	-	-	-	-	-
	Number of floors per site		200	-	-	-	-	-	-
	Number of floors per building		50	-	-	-	-	-	-
	3D graphical layout view		●	-	-	-	-	-	-
	2D graphical layout view		●	-	-	-	-	-	-
	List display		●	-	●	-	-	-	-
	Tree display		●	-	●	-	-	-	-
	Group display		●	-	●	-	-	-	-
Error management	Error notification		●	-	●	-	-	-	-
	Audible alarm		●	-	●	-	-	-	-
	E-mail notification of errors		●	-	●	-	-	-	-
History	Error history		●	-	●	-	-	-	-
	Operation history		●	-	●	-	-	-	-
	Control history		●	-	●	-	-	-	-
Operation control	Individual control	ON/OFF	●	-	●	-	-	-	-
		Operation mode*	●	-	●	-	-	-	-
		Room temperature	●	-	●	-	-	-	-
		Fan speed	●	-	●	-	-	-	-
		Airflow direction	●	-	●	-	-	-	-
		Economy mode	●	-	●	-	-	-	-
		Setting temperature range limitation	●	-	●	-	-	-	-
		Anti-freeze	●	-	●	-	-	-	-
		Low noise setting of outdoor units	●	-	●	-	-	-	-
	Individual management	Remote controller prohibition	●	-	●	-	-	-	-
		Setting temperature range limitation	●	-	●	-	-	-	-
		Filter sign reset	●	-	●	-	-	-	-
	Other	memory operations	●	-	●	-	-	-	-
		Pattern operations	●	-	●	-	-	-	-
Schedule	Annual Schedule		●	-	●	-	-	-	-
	Setting for a specific date		●	-	●	-	-	-	-
	ON/OFF per day		72	-	72	-	-	-	-
	ON/OFF per week		504	-	504	-	-	-	-
	Day off		●	-	●	-	-	-	-
	Minimum unit of timer setting (minutes)		10	-	10	-	-	-	-
	Weekly schedule for low noise mode		●	-	●	-	-	-	-
Remote monitoring management	Web Operation		●	-	●	-	-	-	-
	Remote monitoring		●	-	-	●	-	-	-
	Remote operation control		●	-	-	●	-	-	-
	Remote function setting		●	-	-	●	-	-	-
Electricity charge apportionment	Apportionment charge/bill calculation		●	-	-	-	●	-	-
	Tenant (block) setting		●	-	-	-	●	-	-
	Common facilities apportionment setting		●	-	-	-	●	-	-
	Rated power consumption allotment		●	-	-	-	●	-	-
	Individual calculations for cooling and heating		-	●	-	-	●	-	-
	Electricity meter supported		-	●	-	-	●	-	-
Energy-saving management	Indoor unit rotation		-	●	-	-	-	●	-
	Peak cut control		-	●	-	-	-	●	-
	Capacity saving for outdoor unit		-	●	-	-	-	●	-
	Record of energy-saving operation		-	●	-	-	-	●	-
	Information on energy saving		-	●	-	-	-	●	-
	Power consumption monitor		-	●	-	-	-	●	-
	Electricity meter supported			●		-	-	●	-
Control of external devices	Monitor		●	-	-	-	-	-	●
	Control		●	-	-	-	-	-	●
Others	Importing and exporting databases		●	-	●	-	-	-	-
	Automatic clock adjustment		●	-	●	-	-	-	-
	Multiple language support		7 languages	-	7 languages	-	-	-	-
	Refrigerant leak detector		●	-	●	-	-	-	-
	Power shutdown		●	-	●	-	-	-	-

●●: Available -: Not available

Computer requirements

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

	System controller	System controller Lite
Operating system	• Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) Supports 7 languages: English, Chinese, French, German, Russian, Spanish, and Polish	
CPU	Intel® CoreTM i3 2 GHz or higher	
Memory	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Window;® 8.1, and Windows® 10)	
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.	•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 4 USB ports are required to connect to a White-USB-key/WibuKey - 1 USB port is required for an Ec;helon® U10 USB Network interface * The maximum number of required USB ports depends on the applicable system configuration.
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>

Type	For System controller		For System controller Lite				
	System controller	Option Energy manager	System controller Lite	Option Remote access	Option Electricity charge apportionment	Option Energy saving	Option Centralized control
Model name	UTY-APGXZ1	UTY-PEGXZ1	UTY-ALGXZ1	UTY-PLGXR2	UTY-PLGXA2	UTY-PLGXE2	UTY-PLGXX2
White-USB-key	1	1	1	1	1	1	1

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

BACnet® gateway

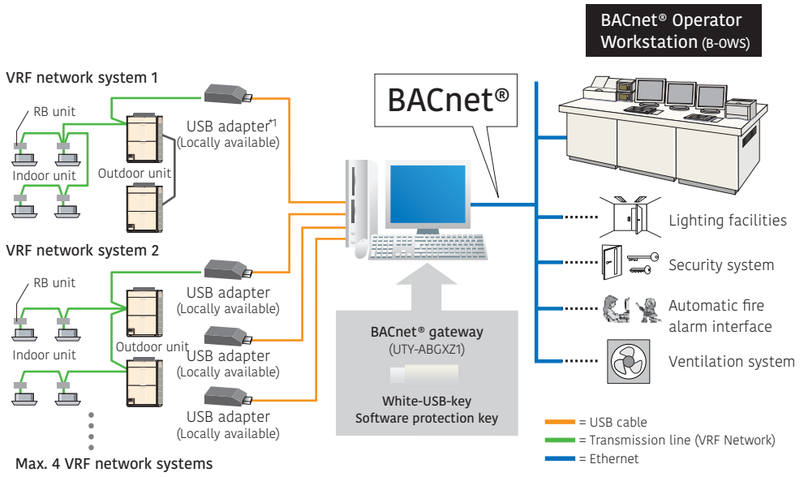
UTY-ABGXZ1 Software

White-USB-key
(Software Protection Key)

Up to
4 VRF network systems
Up to
400 outdoor units
Up to
1,600 indoor units

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks.
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2014) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet® Gateway.
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

Installation example



Max. 4 VRF network systems

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

Specifications

	UTY-ABGXZ1
Operating system	• Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel® CoreTM i3 2 GHz or higher
Memory	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8.1, and Windows® 10)
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	• Ethernet port (for getting access to the Internet using LAN) • USB ports (Maximum of 5 ports) - 1 USB port is required for WHITE-USB-KEY/WibuKey connection - Maximum of 4 USB ports are required for Echelon™ U10 USB Network Interface * Maximum number of required USB ports depends on the applicable system configurations.
Software	Adobe® Reader™ 9.0 or later

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

<PACKING LIST>

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

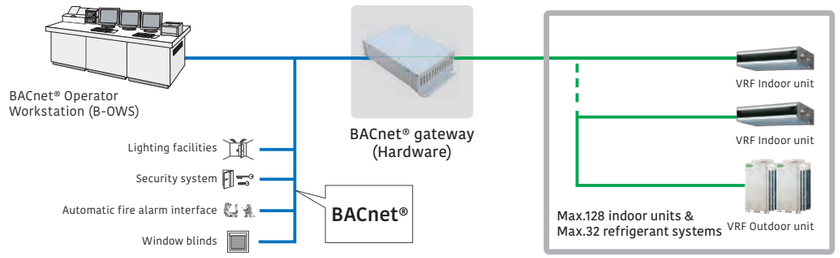
BACnet® gateway

UTY-VBGX Hardware

Up to
1 VRF network systems
Up to
32 refrigerant systems
Up to
128 indoor units

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

Installation example



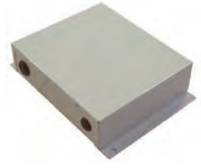
Specifications

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

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

Network converter for LonWorks™

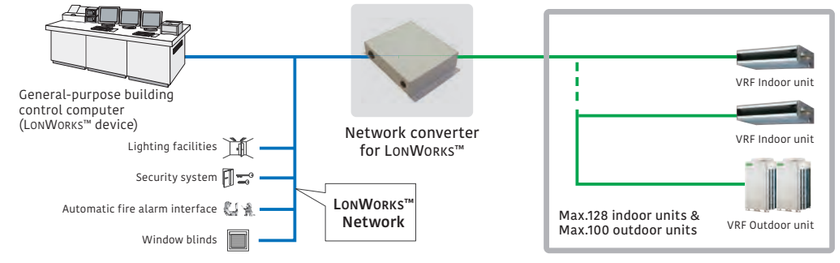
UTY-VLGX



Up to
4 units to BMS
Up to
100 outdoor units
Up to
128 indoor units

- For connection between VRF network system and a LonWorks® open network for management of small to medium-sized BMS and VRF network system.
- The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LonWorks® interface.
- Up to 128 Indoor units can be connected to one Network Converter for LonWorks®

Installation example



Specifications

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

Transmission specifications (BMS side)

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

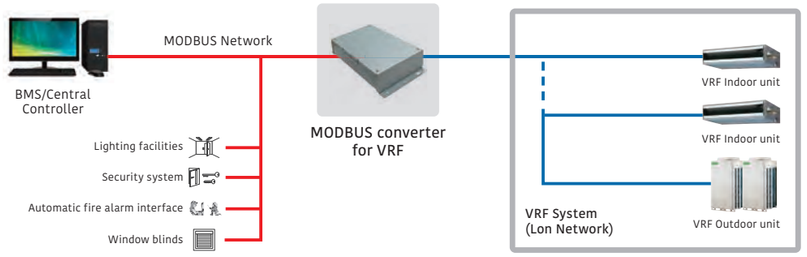
MODBUS® convertor for VRF

UTY-VMGX Hardware

Up to
9 units per VRF system
Up to
100 outdoor units
Up to
128 indoor units

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.



* BMS: Building Management System

Specifications

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

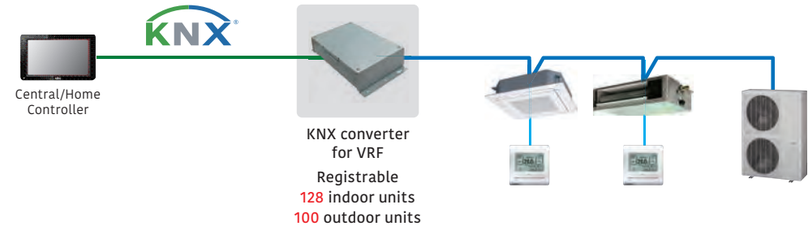
KNX® converter for VRF

UTY-VKGX Hardware

Up to
100 outdoor units
Up to
128 indoor units

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

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



Specifications

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

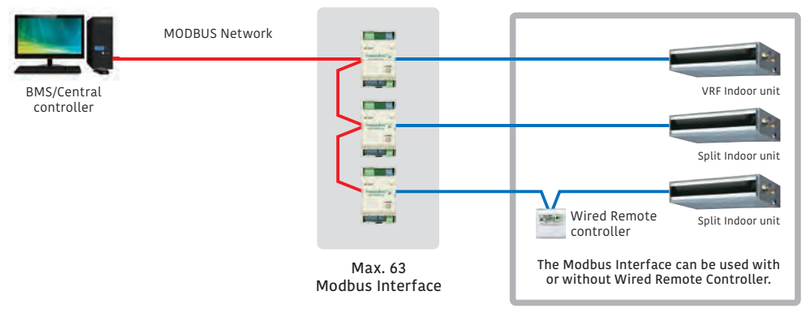
MODBUS® Interface

UTY-VKGX

Up to
1 indoor units

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

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

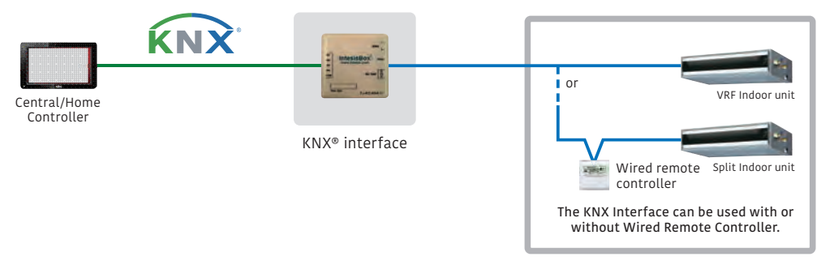
KNX® Interface

FJ-RC-KNX-1i

Up to
1 indoor units

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

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



Specifications

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

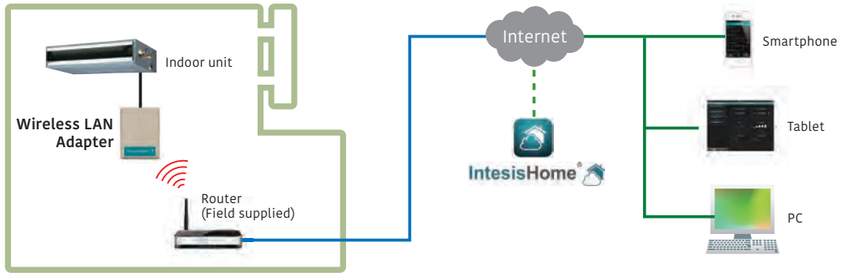
Wireless LAN Adapter

FJ-RC-WIFI-1

Up to
1 Single indoor unit

IntesisHome®

- 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

(Application screen image)

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

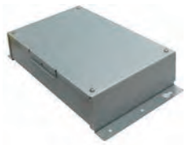
Specifications

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

Network converter

UTY-VTGX / UTY-VTGXV

UTY-VTGX
DC power supply type



UTY-VTGXV
AC power supply type

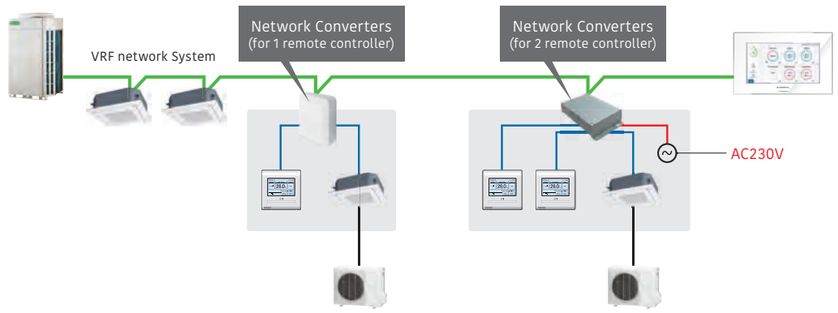
Up to
16 single indoor units
Up to
1 group
Up to
100 Network Converters

Compact remote controller provides access to basic functions

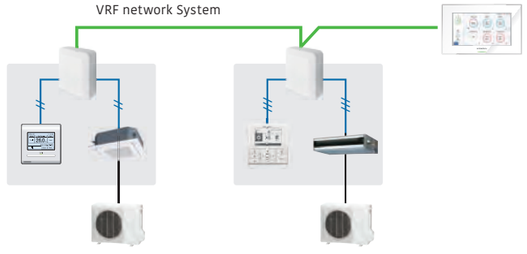
- The network converters are required when connecting single split system to VRF network system.
- Compact and light weight design
- Connectable to both types of 2-wire and 3-wire remote controllers

Installation example

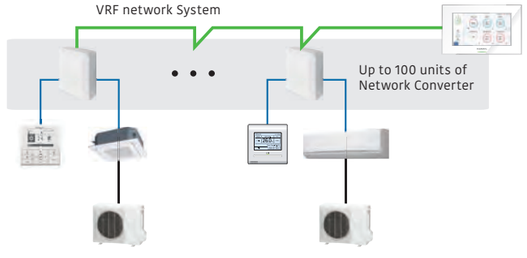
- 2 types of 1 remote controller type and 2 remote controllers type are available.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.



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



- A central control can be provided for the single split systems. (Up to 100 units of Network Converter is connectable in one VRF network system)



Specifications

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

External switch controller

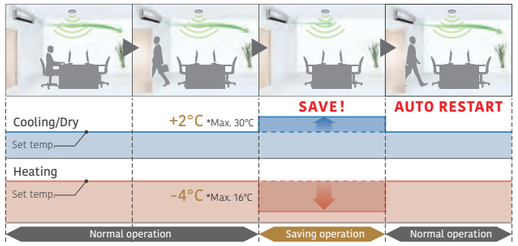
UTY-TERX

Up to
1 group

- 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.



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

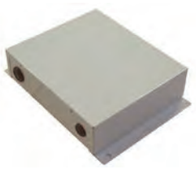
Specifications

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

DC12V is supplied by indoor unit.

Signal amplifier

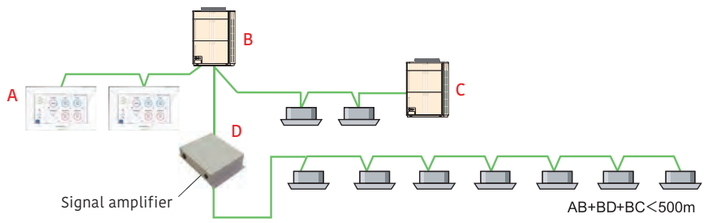
UTY-VSGXZ1



- 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

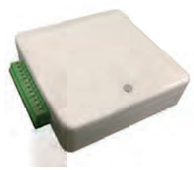


Specifications

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

Thermostat Converter

UTY-TTRXZ1

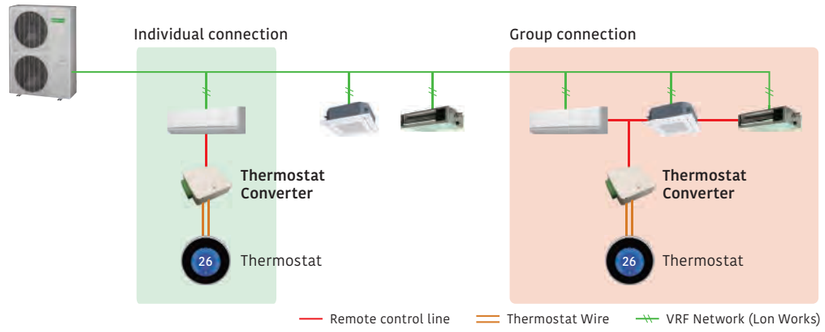


Up to
16 indoor unit

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.

Installation example



Function

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

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

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

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

VENTILATION

Outdoor-air Processing Unit range

Airflow rate (m³/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

Effective heat exchange and simultaneous fresh air ventilation

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

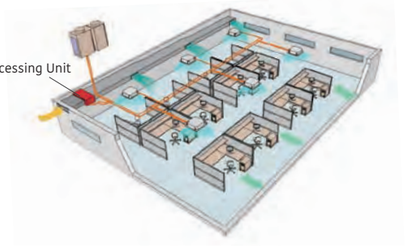
Outdoor-air Processing Unit

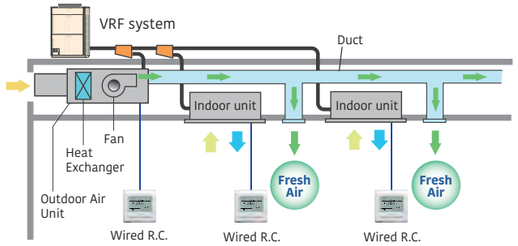
DC FAN

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





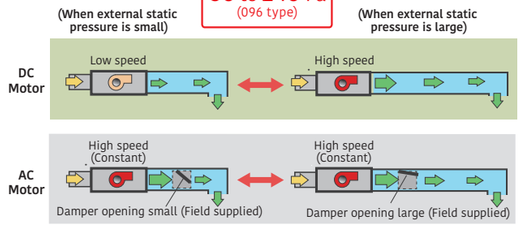
* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor-air Processing Unit connection capacity 30% or less of the outdoor unit capacity.

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.

054 / 072 type　　096 type

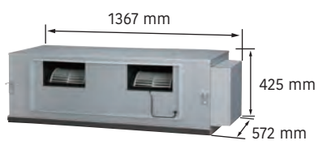
50 to 240 Pa
(096 type)



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.

55 kg
(072 type)

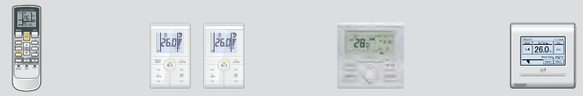


(ARXH072 type)

Various Controller

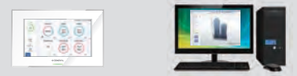
Supplied variety of controllers as options, such as individual controller, central controller, and building management controller.

Individual Controller



Wireless Remote Controller　　Simple Remote Controller　　Wired Remote Controller　　Wired Remote Controller (Touch Panel)

Central Controller



Touch Panel Controller　　System Controller / System Controller Lite (Software)

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

Model:
ARXH054GTAH / ARXH072GTAH / ARXH096GTAH

ARXH054　　ARXH072　　ARXH096

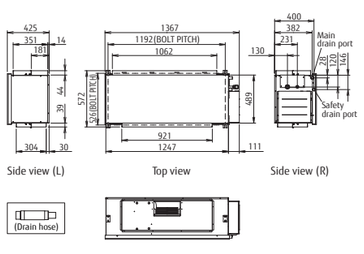
Specifications

Rated flow rate			1000 m³/h	1500 m³/h	2000 m³/h
Model name			ARXH054GTAH	ARXH072GTAH	ARXH096GTAH
Power source		V/Ø/Hz	220-240V, 50Hz		
Capacity	Cooling	kW	14.0	22.4	28.0
	Heating		8.9	13.9	17.4
Input power	Cooling	W	179	292	370
	Heating		179	292	370
Airflow rate		m³/h	1,080	1,680	2,100
Static Pressure	Standard (range)	Pa	185 (50-185)	200 (50-200)	200 (50-240)
Sound Pressure Level		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 pipe diameter	Small	mm	9.52	12.70	12.70
	Large		19.05	22.22	22.22
Operating range	Cooling	°CDB	5 to 43	5 to 43	5 to 43
	Heating		-7 to 21	-7 to 21	-7 to 21
Refrigerant			R410A	R410A	R410A

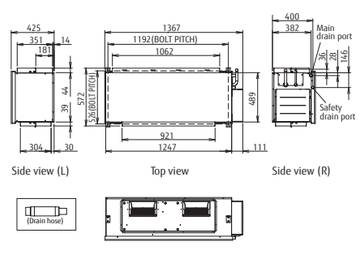
Note : Specifications are based on the following conditions.
Cooling : Outdoor temperature of 33°CDB / 28°CWB.
Heating : Outdoor temperature of 0°CDB / -2.9°CWB.
Pipe length : 7.5 m　Voltage : 230 [V].

Dimensions (Unit: mm)

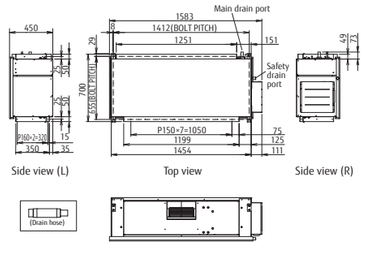
Model: ARXH054



Model: ARXH072



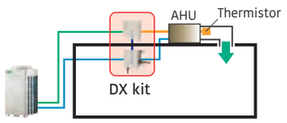
Model: ARXH096



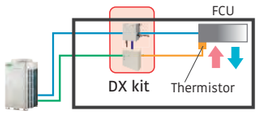
DX kit
for Air handling applications
for VRF Outdoor unit

DC FAN

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

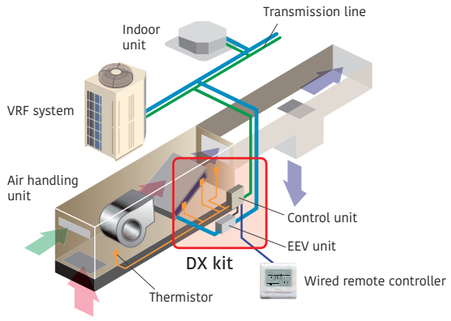


When connected to an Air handling unit, the temperature of supply air is controlled by a discharge air sensor.



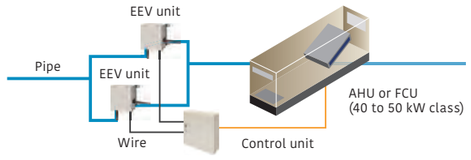
When connected to a fan coil unit, the room temperature is controlled by the discharge air sensor.

Application as part of a VRF system



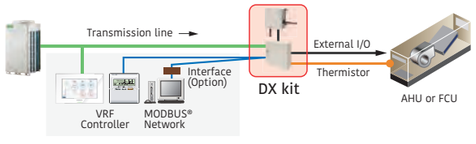
Supports a wide range of capacity classes

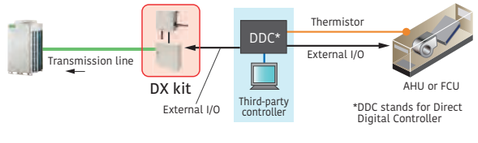
- Two EEV units can be connected in parallel to large-capacity units of up to 20 HP (50 kW). (UTP-LX180A separation tube required)
- Connectable capacity range: 5 kW to 50 kW



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

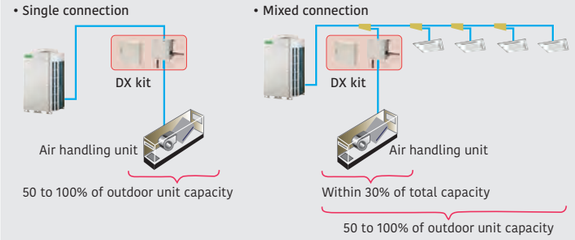
Outputs
- ON/OFF indication
- Fan ON/OFF indication
- Thermo ON/OFF indication
- Defrost indication
- Fault indication

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

Installation 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.

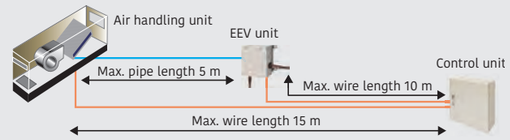
Connectable capacity



[For 2EEV units connection (option)]

- Separation Tube : UTP-LX180A

Pipe and wire length



Control unit: UTY-VDGX
EEV unit: UTP-VX30A/UTP-VX60A/UTP-VX90A


EEV unit
UTP-VX30A


EEV unit
UTP-VX60A


EEV unit
UTP-VX90A


Control unit
UTY-VDGX

Specifications

EEV unit			UTP-VX30A			UTP-VX60A			UTP-VX90A		UTP-VX90A×2	
Power source		V/Ø/Hz	230/1/50									
Connectable capacity class		kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0
Capacity	Cooling	kW	5.6 (5.1-5.9)	6.3 (6.0-7.1)	8.0 (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)
	Heating		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(Reference value)		m^3/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 × 220 × 90)× 2	
Weight		kg	2								2 × 2	
Connection pipe diameter	Liquid	mm	9.52	9.52	9.52	9.52	9.52	9.52	12.70	12.70	12.70	12.70

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

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

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.

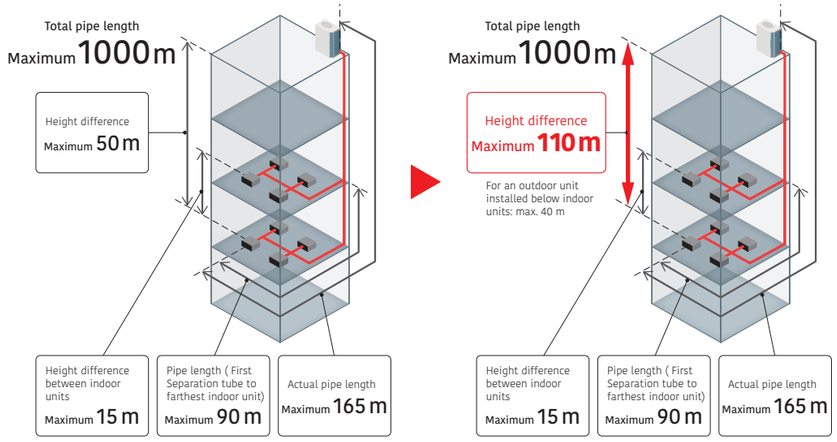
Various kinds of optional parts are provided such as controllers, adaptors and converters to meet the needs of every user.

Pressure sensor kit

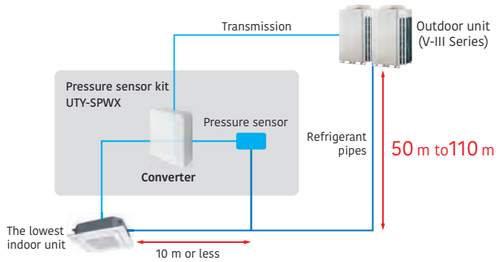
UTY-SPWX

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.)



System overview



Pressure sensor kit

Pressure sensor kit (Converter)	Refrigerant pressure sensor	Joint pipe
		

Specifications

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

Auto louver grille kit

UTD-GXTA-W / UTD-GXTB-W / UTD-GXTC-W

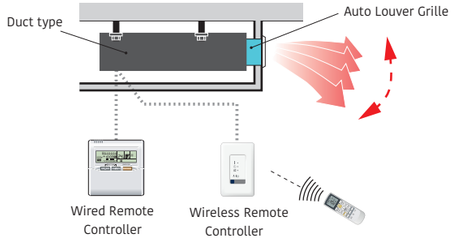
The optional clean-looking flat Auto louver grille kit blends into any interior and provides a comfortable airflow.

Flexible Control

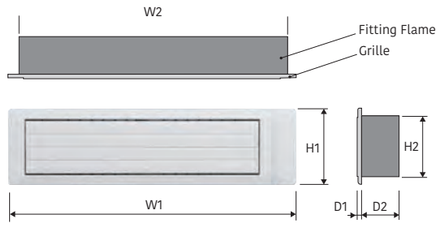
- Operation with indoor unit
  Auto Louver can be operated by synchronizing remote controller of indoor unit.

- 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



Unit: mm

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

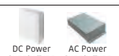
Specifications

Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W
Applicable Indoor Unit			ARXD07/09/12/14GATH	ARXD18GATH	ARXD24GATH
Power source			Connecting with Control box of indoor unit		
Fixing of Auto Louver Grille			Screw fixing to Flange or Square Duct		
Extension Square 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)
Weight	Net	kg	2.0	2.5	3.0
	Gross		3.0	3.5	4.0
Color			White		
Louver Motor			Stepping Motor		
Accessories			Fitting Flame, etc.		
Operating range	Cooling	℃	18 to 32		
		% RH	80% or less		
	Heating	℃	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.

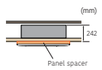
CONTROL SYSTEM LIST

Controllers / Interface

Type			Indoor unit										
			Cassette			Duct		Duct		Ceiling / Floor	Ceiling	Wall Mounted	
			4-way Compact	Circular Flow		Slim (With drain pump)	Medium Static Pressure	High Static Pressure				-	-
			AUXB 09/12/14/18/24 GATH	AUXM018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBTH	ARXC36/72/90GBTH, ARXC96GATH	ARKC45/60GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GATH	ASHA 18/24/30 GATH
Controllers	Wired Remote Controller		● UTY-RNRGZ5					● UTY-RNRGZ5					
			● UTY-RLRG					● UTY-RLRG					
	Compact Wired Remote Controller		● UTY-RCRGZ1, UTY-RCRGZ1K					● UTY-RCRGZ1, UTY-RCRGZ1K					
	Simple Remote Controller	 2-wire type 3-wire type	● UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG					● UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG					
	Wireless Remote Controller		● UTY-LNHG					● UTY-LNHG					
	Central Remote Controller		● UTY-DCGGZ3					● UTY-DCGGZ3					
	System Controller, System Controller Lite		● UTY-APGXZ1, UTY-ALGXZ1					● UTY-APGXZ1, UTY-ALGXZ1					
	IR Receiver Unit			● UTY-LBHXD		● UTB-YWC		● UTB-YWC					
Interface	BACnet Gateway		● UTY-ABGXZ1, UTY-VBGX					● UTY-ABGXZ1, UTY-VBGX					
	Network Converter for LONWORKS		● UTY-VLGX					● UTY-VLGX					
	MODBUS Converter		● UTY-VMGX					● UTY-VMGX					
	MODBUS Interface		● FJ-RC-MBS-1			● FJ-RC-MBS-1		● FJ-RC-MBS-1 (ARKC45/60GATH, ARXC96GATH only)		● FJ-RC-MBS-1			
	KNX Convertor		● UTY-VKGX					● UTY-VKGX					
	KNX Interface		● FJ-RC-KNX-1i			● FJ-RC-KNX-1i		● FJ-RC-KNX-1i (ARKC45/60GATH, ARXC96GATH only)		● FJ-RC-KNX-1i			
	Wireless LAN Interface		● FJ-RC-WIFI-1			● FJ-RC-WIFI-1		● FJ-RC-WIFI-1 (ARKC45/60GATH, ARXC96GATH only)		● FJ-RC-WIFI-1			
	External Switch Controller		● UTY-TERX					● UTY-TERX					
	Network Converter for single split	 DC Power Supply Type AC Power Supply Type	● UTY-VTGX, UTY-VTGXV					● UTY-VTGX, UTY-VTGXV					
	Thermostat Converter		● UTY-TTRXZ1					● UTY-TTRXZ1					

OPTIONAL PARTS LIST

Others

Type			Indoor unit										Outdoor unit
			Cassette			Duct		Duct		Ceiling / Floor	Ceiling	Wall Mounted		
			4-way Compact	Circular Flow		Slim (With drain pump)	Medium Static Pressure	High Static Pressure				-	-	V-III Tropical
			AUXB 09/12/14/18/24 GATH	AUXM018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBTH	ARXC36/72/90GBTH, ARXC96GATH	ARKC 45/60GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GATH	ASHA 18/24/30 GATH	AJS 072/090/ 108/126/144 LNTCH
Others	Human Sensor Kit			● UTY-SHZXC										
	Remote Sensor Unit	 New amenity space can be offered by installing the Remote sensor.				● UTY-XSZX		● UTZ-PX1NBA						
	Cassette Grille	 UTG-UFGC-W  UTG-UKGD-W  UTG-UKGA-B	● UTG-UFGC-W	● UTG-UKGD-W UTG-UKGA-B										
	Auto Louver Grille Kit					● UTD-GXTA-W UTD-GXTB-W(18) UTD-GXTC-W(24)								
	Long Life Filter						● UTD-LF25NA	● UTD-LF60KA(36/45/60)						
	Flange						● UTD-SF045T UTD-RF204				● UTD-RF204			
	Drain Pump Unit						● UTZ-PX1NBA				● UTR-DPB24T			
	Wide Panel			● UTG-AKXA-W										
	Panel Spacer			● UTG-BKXA-W										
	Air Outlet Shutter Plate	For Compact Cassette For Cassette	● UTR-YDZB	● UTR-YDZK										
	Insulation for High Humidity	 For Compact Cassette type / Cassette type	● UTZ-KXGC	● UTZ-KXRA										
	Pressure Sensor Kit for V-III Series*													● UTY-SPWX

OPTIONAL PARTS

Controllers

For Individual Control

Wired Remote Controller (Touch Panel)
UTY-RNRGZ5

Wired Remote Controller
UTY-RLRG

Compact Wired Remote Controller
UTY-RCRGZ1

Compact Wired Remote Controller
UTY-RCRGZ1K

Simple Remote Controller
UTY-RSRG
With operation mode

Simple Remote Controller
UTY-RHRG
Without operation mode

Wireless Remote Controller
UTY-LNHGU

IR Receiver Unit
UTB-YWC
For All Duct types except Large Airflow Duct

IR Receiver Unit
UTY-LBHXD
For Circular Flow Cassette type

Human Sensor Kit
UTY-SHZXC
For Circular Flow Cassette type

For Centralized Control

Central Remote Controller
NEW UTY-DCGGZ3

System Controller Lite Software
UTY-ALGXZ1
WHITE-USB-KEY
(Software Protection Key)

Option
UTY-PLGXR2
UTY-PLGXA2
UTY-PLGXE2
UTY-PLGXX2

System Controller Software
UTY-APGXZ1
WHITE-USB-KEY
(Software Protection Key)

Option
UTY-PEGXZ1

Converters / Adaptors

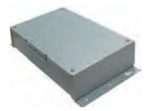
For External device / System expansion

BACnet® Gateway Software
UTY-ABGXZ1
WHITE-USB-KEY
(Software Protection Key)

BACnet® Gateway Hardware
UTY-VBGX

Network Converter
for LonWorks®
UTY-VLGX

MODBUS® Converter Hardware
for VRF
UTY-VMGX



MODBUS® Interface
FJ-RC-MBS-1

KNX® Converter Hardware
for VRF
UTY-VKGX

KNX® Interface
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

Signal Amplifier
UTY-VSGXZ1

Thermostat Converter
UTY-TTRXZ1

Pressure Sensor Kit
for V-III tropical Series*
UTY-SPWX

OPTIONAL PARTS

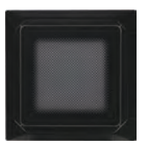
Panels

For Cassette type

Cassette Grille
UTG-UFGD-W
For Compact Cassette type

Cassette Grille
UTG-UKGD-W
For Circular Flow Cassette type

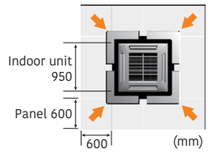
Cassette Grille
UTG-UKGA-B
For Circular Flow Cassette type



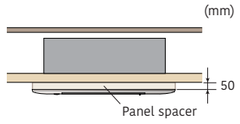
Others

For Cassette type

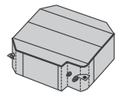
Wide Panel
UTG-AKXA-W
For Cassette type



Panel Spacer
UTG-BGYA-W
For Cassette type



Insulation Kit for High Humidity
UTZ-KXRA
For Cassette type
UTZ-KXGC
For Compact Cassette type



Air Outlet Shutter Plate
UTR-YDZB
For Compact Cassette type
Shuts the air outlet when only using as 3 blow out.

Air Outlet Shutter Plate
UTR-YDZK
For Cassette type
Shuts the air outlet when only using as 3 blow out.

For Ceiling type

Drain Pump Unit
UTR-DPB24T
For Ceiling type

Others

For Duct type

Flange (Round)
UTD-RF204
For Medium Static Pressure Duct type / Ceiling type

Flange (Square)
UTD-SF045T
For Medium Static Pressure Duct type

Remote Sensor Unit
UTY-XSZX
For All Duct type
New amenity space can be offered by installing the Remote sensor.

Long-Life Filter
UTD-LF25NA
For Medium Static Pressure Duct type

UTD-LF60KA
For High Static Pressure Duct type

Auto Louver Grille Kit
UTD-GXTA-W (for ARXD07/09/12/14)
UTD-GXTB-W (for ARXD18)
UTD-GXTC-W (for ARXD24)
For Slim Duct type

Drain Pump Unit
UTZ-PX1NBA
For Medium Static Pressure Duct

Communication system: External Connect Kit

For Indoor unit

UTY-XWZXZ7


UTY-XWZXZD


UTY-XWZXZB


UTY-XWZXZE


UTY-XWZXZC


For Outdoor unit

UTY-XWZXZ6


UTY-XWZXZ9


UTY-XWZXZF


For Central Remote Controller

UTY-XWZXZ7


UTY-XWZXZ8


UTY-XWZXZA


For Touch Panel Controller

UTY-XWZXZA


FUNCTION LIST

Type		Indoor unit							Indoor unit				Outdoor unit		Controller
		Cassette			Duct				Ceiling / Floor	Ceiling	Wall Mounted		J-III Tropical	V-III Tropical	Central Remote Controller
		4-way Compact	Circular Flow		Slim (With drain pump)	Medium Static Pressure	High Static Pressure	High Static Pressure			-	-			
		AUXB 09/12/14/18/24 GATH	AUXM 018/024GTAH	AUXK 018/024/030/034/ 036/045/054 GTAH	ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBTH	ARXC36/72/90GBTH, ARXC96GATH	ARKC45/60GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GATH	ASHA 18/24/30 GATH	AJH 040/045/054 LBTAHN, AJH 040/045/054 LETAHN	AJS 072/090/ 108/126/144 LNTCH	UTY-DCGGZ2
Input	Operation / Stop	●UTY-XWZXZD ○UTY-XWZXZB								●UTY-XWZXZD ○UTY-XWZXZB					
	All On / All Off														●UTY-XWZXZ7 ○UTY-XWZXZ8
	Group Stop													●UTY-XWZXZ6	
	Forced Stop	●UTY-XWZXZD ○UTY-XWZXZB								●UTY-XWZXZD ○UTY-XWZXZB					
	Emergency Stop	●UTY-XWZXZD ○UTY-XWZXZB								●UTY-XWZXZD ○UTY-XWZXZB				●UTY-XWZXZ6	●UTY-XWZXZ7 ○UTY-XWZXZ8
	Forced Thermostat off	●UTY-XWZXZE ○UTY-XWZXZ7								●UTY-XWZXZE ○UTY-XWZXZ7					
	Low Noise Mode Operation													●UTY-XWZXZ6	
	Cooling/ Heating Priority														
	Outdoor Unit Operation Peak Control													●UTY-XWZXZ6	
	Power Usage Information from Electricity Meter													●UTY-XWZXZF	
Output	Operation Status	●UTY-XWZXZC								●UTY-XWZXZC				○UTY-XWZXZ6	○UTY-XWZXZA
	Error Status	●UTY-XWZXZC								●UTY-XWZXZC				○UTY-XWZXZ6	○UTY-XWZXZA
	Indoor Unit Fun Operation Status	●UTY-XWZXZC								●UTY-XWZXZC					
	Auxiliary Heater Output				●UTY-XWZXZC										
	Base Heater													●UTY-XWZXZ9	

SEPARATION TUBE etc.

Connection Units

Separation Tube

UTP-AX054A

Gas Pipe

Liquid Pipe

UTP-AX090A

Gas Pipe

Liquid Pipe

UTP-AX180A

Gas Pipe

Liquid Pipe

UTP-AX567A

Gas Pipe

Liquid Pipe

UTP-LX180A for DX Kit

Header

UTR-H0906L / UTR-H1806L

Gas Pipe

Liquid Pipe

UTR-H0908L / UTR-H1808L

Gas Pipe

Liquid Pipe

Outdoor Unit Branch Kit

UTP-CX567A

Gas Pipe

Liquid Pipe

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-BX180A	UTP-BX567A
Total cooling capacity of indoor unit	kW	28.0 or less	28.1 to 56.0	56.1 or more

Header

Model name	3-6 Branches		UTR-H0906L	UTR-H1806L
	3-8 Branches		UTR-H0908L	UTR-H1808L
Total cooling capacity of indoor unit		kW	28.0 or less	28.1 to 56.0

Model name	3-6 Branches		UTP-J0906A	UTP-J1806A
	3-8 Branches		UTP-J0908A	UTP-J1808A
Total cooling capacity of indoor unit		kW	28.0 or less	28.1 to 56.0

Outdoor unit Branch kit

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

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	Information Material													Tool			
	Product Sales Training Material	Product Technical Training Material	Product news	Brochures	Feature Promotion Movie	Operating Manual	Design & Technical Manual	Certificate Data	2D CAD Data	3D CAD (Revit) Data	Installation Manual	Service Manual	Design Simulator (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												●			●	●

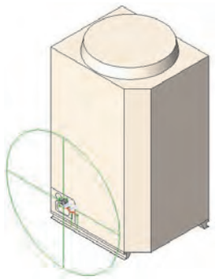
Support

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

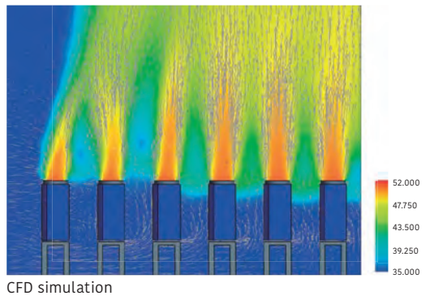


2D/3D CAD data

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



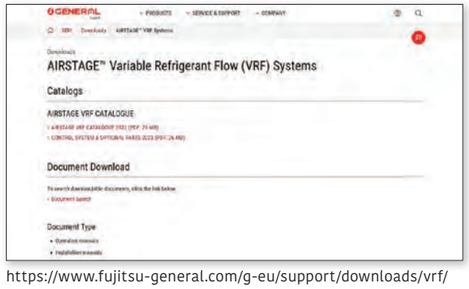
CFD simulation

Commissioning support

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/

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.

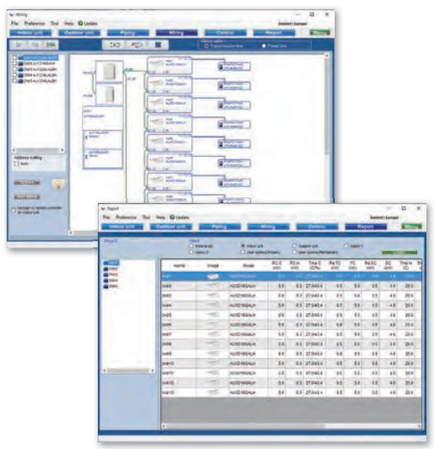
Features
- Designing VRF systems
- On-site training for control systems

1 Head office training center in Japan
2 Training center in China
3 Asia training center in Singapore
4 Europe training center in the United Kingdom
5 Europe training center in Germany
6 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



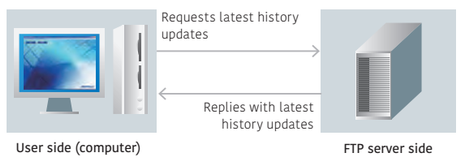
Automatically create model selection information

- 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

bimobject®
www.bimobject.com/en

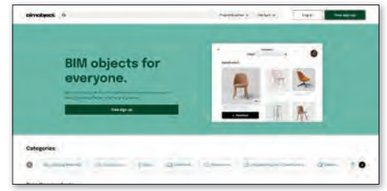
BIM files of Fujitsu General's products are available on BIMobject®

Fujitsu General is releasing BIM files of our products on the BIMobject® website BIMobject.com.

Outline of BIMobject®
BIMobject® is a game changer for the construction industry, offering development, maintenance, and syndication of objects on the world's largest BIM platform.

About BIM files

- 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.



RFA (Revit data)
A data format available for BIM-designed projects

Data content
- Shape (Size)
- Drain direction
- Pipe direction
- Power supply location
- It contains information about the above specifications.

Type catalog with product specifications

DWG
a standard data format used for Autodesk products

DXF
Intermediate data commonly available in CAD products

Data content
- Shape (Size)

*To learn more about how to use BIM files, refer to the instructional video on each product page. youtu.be/wfL-hwFQ7dM

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.

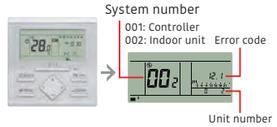
- Display the operation mode at the time.
- Discharge temperature and pressure
- Compressor operation status
- "Address/Type/Number" of the outdoor unit
- Error code

7-segment indicator lamp

Wired remote controller (with touch panel)

Error status/Error history

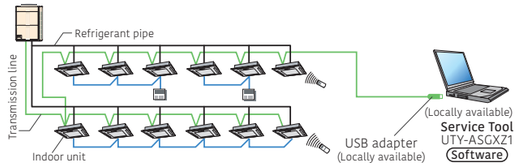
System number



Error diagnosis by Service tool

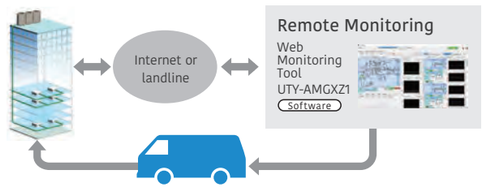
Connect Service tool to check the status details of units, from single split to VRF, on a computer screen.
Check the errors quickly for prompt countermeasures.

- 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.



Mobile troubleshooting App for iOS and Android ™ 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.

Download on the App Store

GET IT ON Google Play

Mobile Technician **FREE**

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

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

Actual operating conditions | Graphs | Operational histories

	UTY-ASSX
Dimensions (H × W × D) (mm)	60 × 160 × 160
Weight (g)	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.

Use the result of a self-diagnosis only as a guide and use your own judgment to make a final decision.

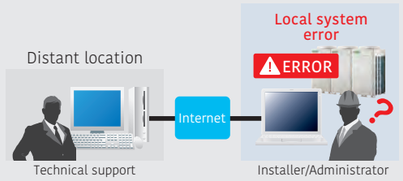
These sensor values are checked automatically:

- the discharge temperature is normal, "OK"
- the super heat volume is normal, "OK"
- 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	• Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 1 GB or more (for Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	40 GB or more of free space
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

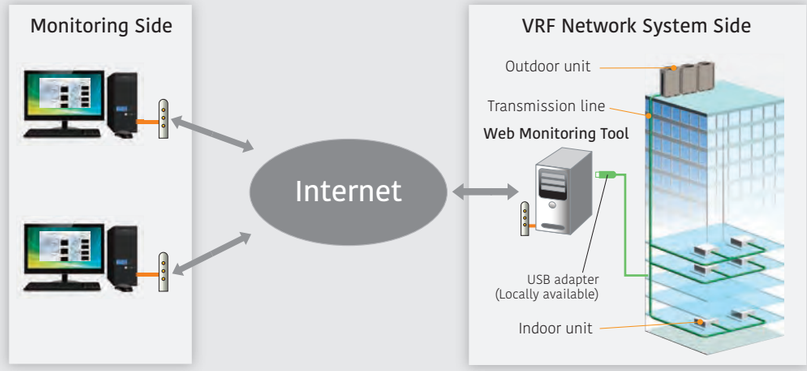
UTY-AMGXZ1

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.
- 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 mode.
- Can be viewed on the monitoring computer's Web browser without installing any special software.

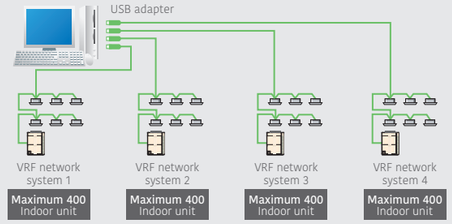
*1: Internet e-mail access required.

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

	UTY-AMGXZ1
Operating system	• Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 1 GB or more (for Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	40 GB or more of free space
Screen resolution	1366 × 768 pixels or higher
Interface	• USB ports (one for U10 USB Network interface and up to 4 ports for software protection keys) • 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)	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 name: 75010R) (Required for each VRF Network)