GENERAL

Refrigerant
R410A
INVERTER

Variable Refrigerant Flow System

AIRSTAGE™

TROPICAL SPEC

HEAT PUMP
VRF CATALOGUE

for **Middle East**

AIRSTAGE™ TROPICAL SPEC HEAT PUMP VRF CATALOGUE

FUJITSU GENERAL LIMITED

Variable Refrigerant Flow System

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for **Middle East**

R410A

FUJITSU GENERAL LIMITED

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• For further details, please check with our authorised dealer.
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FUJITSU GENERAL LIMITED

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www.fujitsu-general.com

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

AIRSTAGE J-III TROPICAL

Heat Pump type for heating or cooling operation
4 HP - 6 HP 6 Models
• Single phase: 4 HP to 6 HP/3 models
• 3 phase: 4 HP to 6 HP/3 models

AIRSTAGE V-III TROPICAL
Production by order

Heat Pump Modular type for heating or cooling operation
8 HP - 54 HP 39 Models
• Space saving combination: 8 HP to 54 HP/24 models
• Energy efficiency combination: 16 HP to 46 HP/15 models

AIRSTAGE V-III TROPICAL

AIRSTAGE J-III TROPICAL

OUR HISTORY

Overseas Air Conditioning Business since 1971
VRF Business since 2001

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

For Commercial Use

2001
10HP / Heat recovery & Heat pump

2003
10HP / Heat recovery 8,10HP / Heat pump & Cooling

AIRSTAGE S

2007
8 to 42HP / Heat pump

AIRSTAGE V

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

AIRSTAGE V-II

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

AIRSTAGE VR-II

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

AIRSTAGE V-II TROPICAL

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

AIRSTAGE V-III

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

AIRSTAGE V-III TROPICAL

For Residential & Light Commercial Use

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

AIRSTAGE J

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

AIRSTAGE J-II

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

AIRSTAGE J-IIS

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

AIRSTAGE J-III

AIRSTAGE J-III TROPICAL
Tropical spec model
High efficiency and compact design model
4HP to 6HP / Heat pump

AIRSTAGE J-III L
High efficiency and compact design model
10HP to 12HP / Heat pump

AIRSTAGE™ History

1936 Established as Yaou Shouten Ltd. - 2016

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

WORLD WIDE LOCATIONS

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

JAPAN Head Office

Technology Research Building (Japan)

14 Overseas Sales Companies

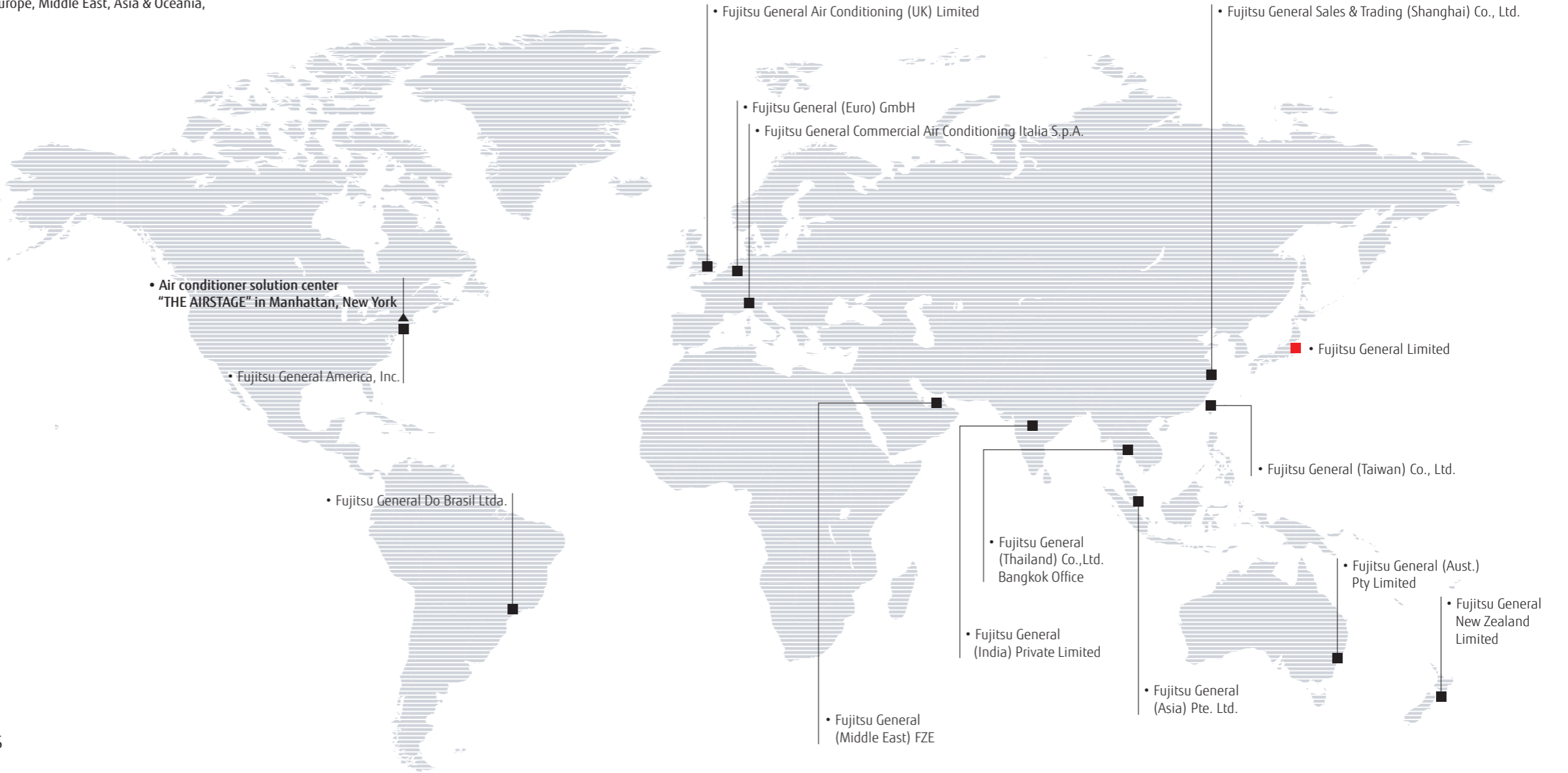- Fujitsu General Air Conditioning (UK) Limited
- Fujitsu General Sales & Trading (Shanghai) Co., Ltd.
- Fujitsu General (Euro) GmbH
- Fujitsu General Commercial Air Conditioning Italia S.p.A.
- Air conditioner solution center "THE AIRSTAGE" in Manhattan, New York
- Fujitsu General Limited
- Fujitsu General America, Inc.
- Fujitsu General (Taiwan) Co., Ltd.
- Fujitsu General Do Brasil Ltda.
- Fujitsu General (Thailand) Co.,Ltd. Bangkok Office
- Fujitsu General (Aust.) Pty Limited
- Fujitsu General New Zealand Limited
- Fujitsu General (India) Private Limited
- Fujitsu General (Asia) Pte. Ltd.
- Fujitsu General (Middle East) FZE

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

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

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

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

Fujitsu General New Zealand Ltd. (New Zealand)

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

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

Fujitsu General (EURO) GmbH (Germany)

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

Fujitsu General Commercial Air Conditioning Italia S.p.A. (Italy)

Fujitsu General Do Brasil Ltda.(Brasil)

Fujitsu General (India) Private Limited

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

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

GLOBAL BUSINESS ACTIVITIES

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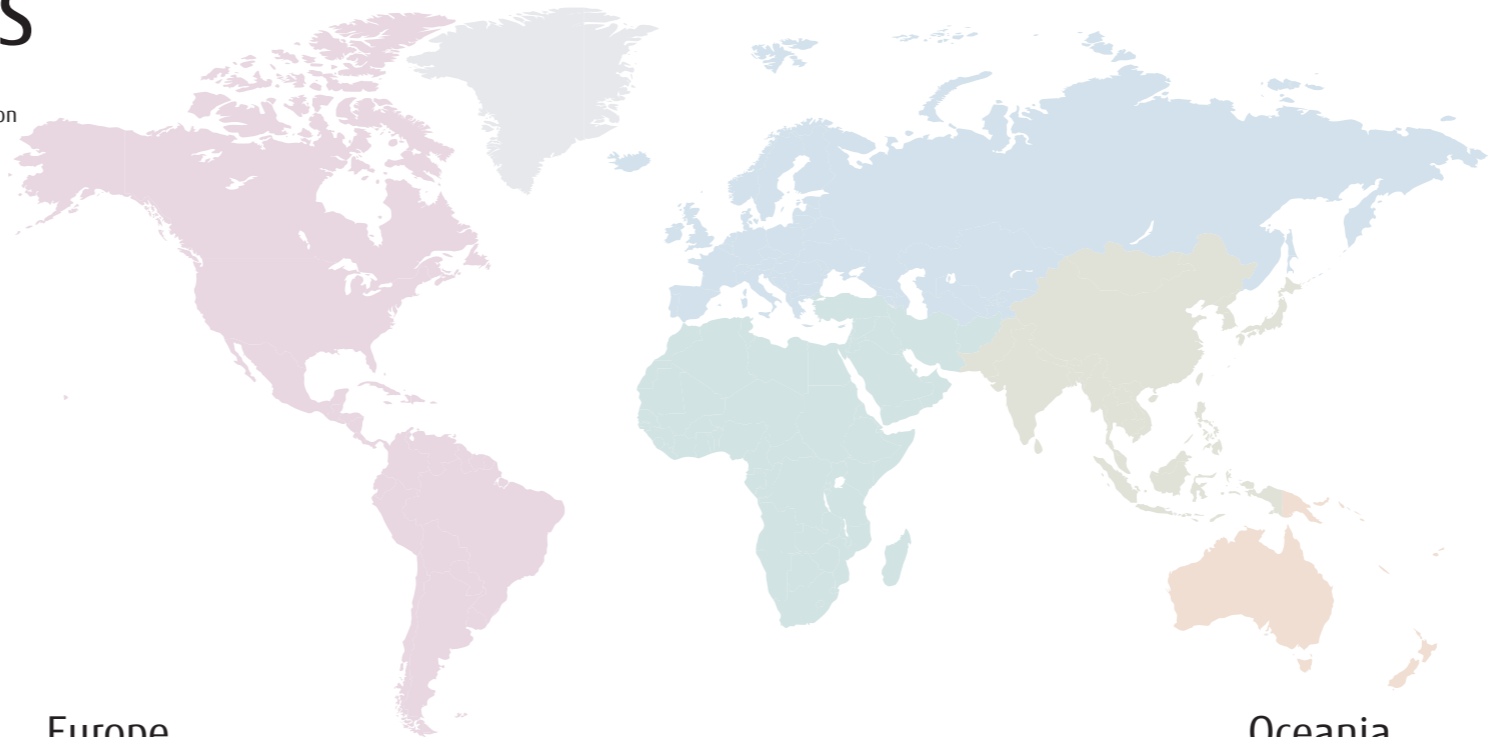
North/South America

AHR Expo

HVAC trade show in Brasil

Distributor meeting

Call center

Middle East

Exhibition

Dealer Convention in Kuwait

Technical seminar

Training for dealers

Europe

HVAC trade show in Europe countries

HVAC trade show in Europe countries

Presentation & training

HVAC trade show in Europe countries

ACR Show

Oceania

HVAC trade show in Australia

Charity (Christchurch)

Service & Maintenance

Asia

New Product Presentation Meeting

Dealer Convention in Thailand

Training

Call center

International authoritative design awards

"Dealer Design Awards" of "the NEWS"

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

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

Super brand is the world's largest independent arbiter of branding

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

reddot winner 2020
The product design competition has existed since 1955. Its award, the "red dot", is an internationally recognized quality seal.

Coolworld Industry Awards "Most Efficient Air Conditioner"

Canstar Blue Most Satisfied Customers Award

China State Construction Engineering Luban Prize

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

PROJECT REFERENCE

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

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

For Commercial

8 Hotel in Asia
9 Office in Asia
10 Apartment in Oceania
11 Apartment in Oceania
12 Pablic Facility in Asia
13 Hotel in Middle East

For Light Commercial

1 Bank in Europe
2 Museum in Europe
3 School in Asia
4 Hospital in Asia
5 School in Middle East
6 Shop in Oceania
7 Pablic Facility in U.S.A.

For Residential

14 Residential in Oceania
15 Residential in U.S.A.
16 Villa in Middle East

GLOBAL DEVELOPMENT & PRODUCTION BASES

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

- • Head Office
- • R&D Center
- • Manufacturing Companies

R&D Center & Technology Research Building

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

R&D Center in Fujitsu General America (U.S.A.)

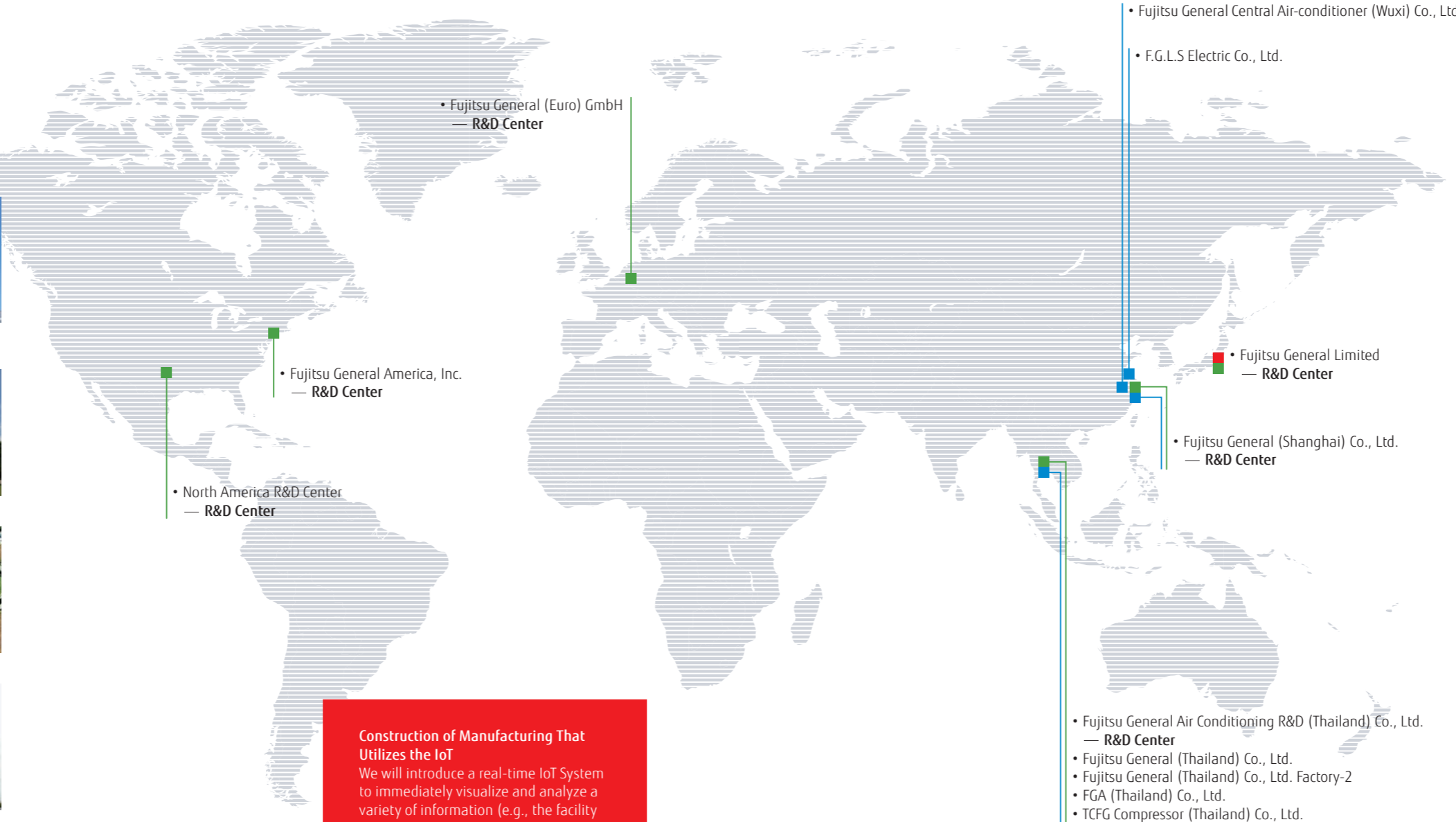North America R&D Center (U.S.A.)

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)

Technology Research Building
in Japan Head Office

- • Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.
- • F.G.L.S Electric Co., Ltd.
- • Fujitsu General (Euro) GmbH — **R&D Center**
- • Fujitsu General America, Inc. — **R&D Center**
- • North America R&D Center — **R&D Center**
- • Fujitsu General Limited — **R&D Center**
- • Fujitsu General (Shanghai) Co., Ltd. — **R&D Center**
- • Fujitsu General Air Conditioning R&D (Thailand) Co., Ltd. — **R&D Center**
- • Fujitsu General (Thailand) Co., Ltd.
- • Fujitsu General (Thailand) Co., Ltd. Factory-2
- • FGA (Thailand) Co., Ltd.
- • TCFG Compressor (Thailand) Co., Ltd.

Construction of Manufacturing That Utilizes the IoT
We will introduce a real-time IoT System to immediately visualize and analyze a variety of information (e.g., the facility operating situation, production progress on assembly lines, and the inventory and transportation situation of parts). This will enhance the accuracy of production and shipping forecasts in the Head Office and Factory Management Department. In addition, we will also utilize this in the improvement activities of employees in production sites with the aim of improving the productivity efficiency, parts distribution efficiency and facility operating ratio.

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 (Thailand) Co., Ltd. (Thailand) FACTORY-2

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

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

Fujitsu General Air Conditioning R&D (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.
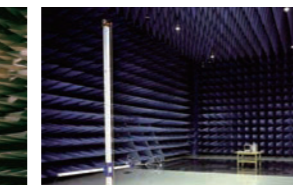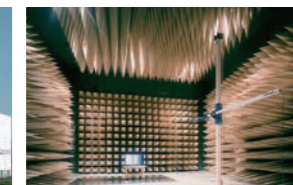
Transportation & Handling

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

- ISO 9001
- ISO 14001
- ( ) Number of companies

North America
Sales subsidiary (1)

Europe
Sales subsidiary (3)

Middle East
Sales subsidiary (1)

South America
Sales subsidiary (1)

Asia
• Sales subsidiary (3)
• Manufacturing subsidiary (5)

Japan
• Head office
• Manufacturing subsidiary (2)

Oceania
Sales subsidiary (2)

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.
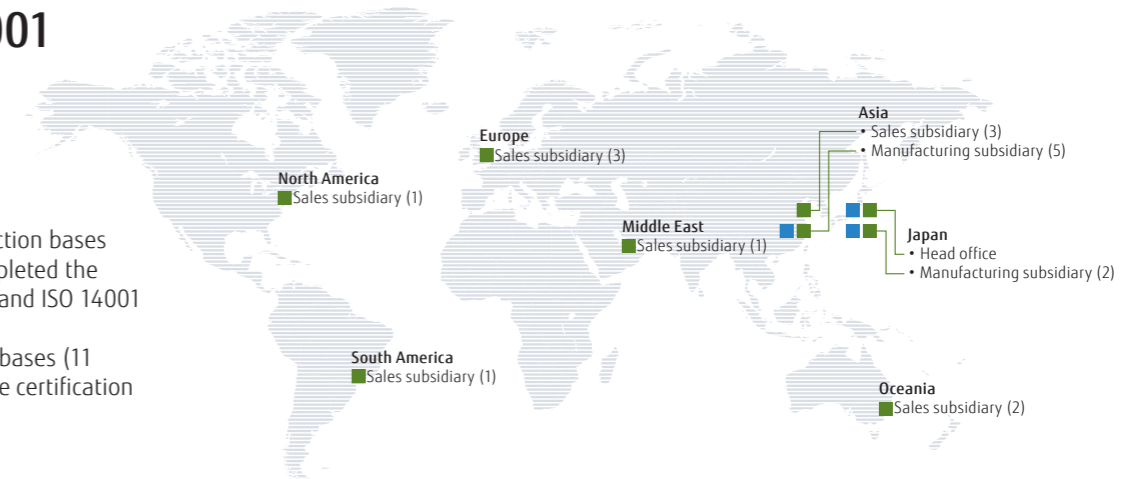
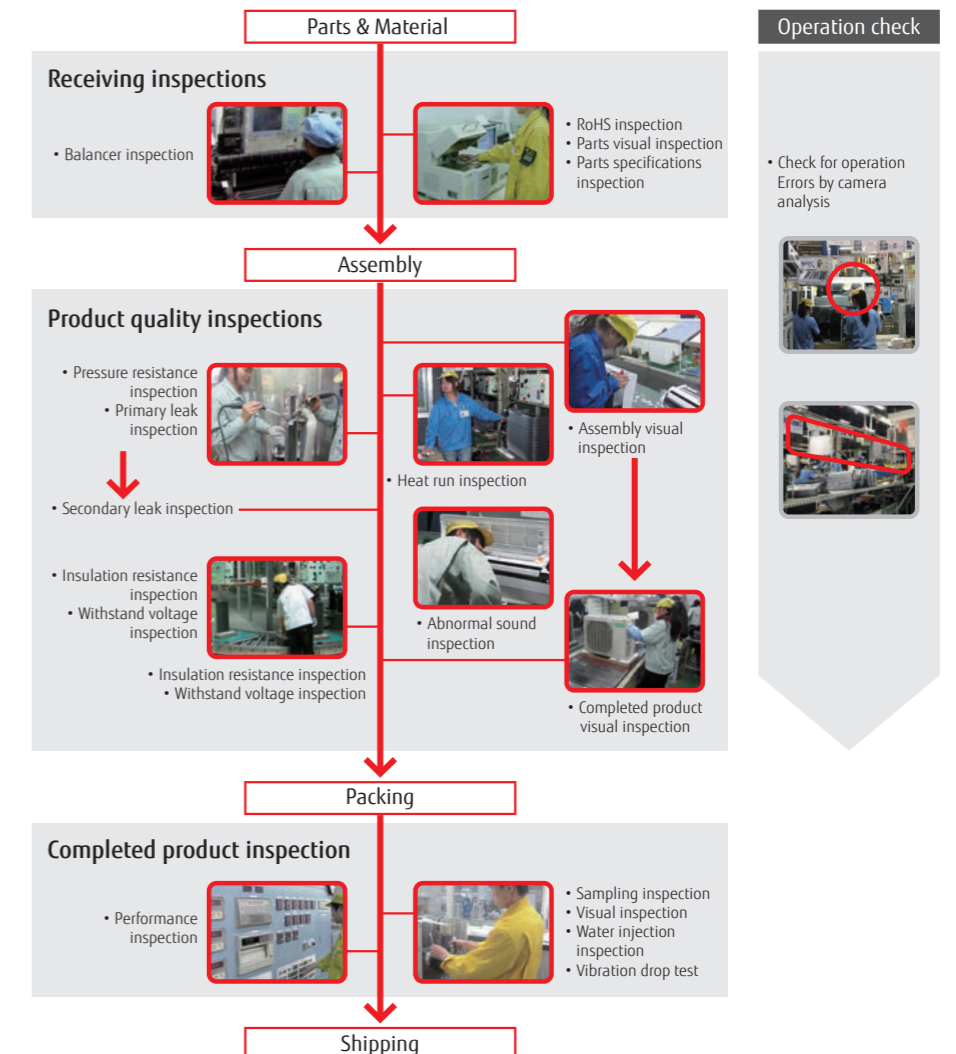## High Product Quality Assurance

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.

Parts & Material

Receiving inspections
• Balancer inspection
• RoHS inspection
• Parts visual inspection
• Parts specifications inspection

Assembly

Product quality inspections
• Pressure resistance inspection
• Primary leak inspection
• Secondary leak inspection
• Insulation resistance inspection
• Withstand voltage inspection
• Insulation resistance inspection
• Withstand voltage inspection
• Heat run inspection
• Assembly visual inspection
• Abnormal sound inspection
• Completed product visual inspection

Packing

Completed product inspection
• Performance inspection
• Sampling inspection
• Visual inspection
• Water injection inspection
• Vibration drop test

Shipping

Operation check
• Check for operation Errors by camera analysis

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.

- Excellent Energy Saving
- Pleasant Comfort
- Easy Installation
- High Durability
- Enhanced Safety

THE TOTAL SOLUTION

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.
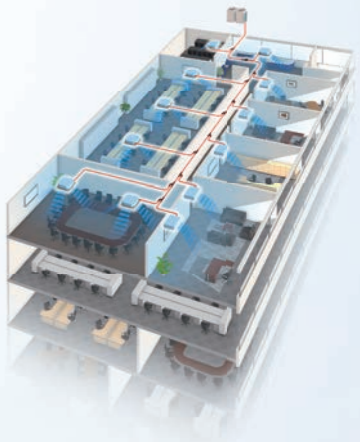
Light Commercial

APARTMENT, VILLA

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

AIRSTAGE™

APARTMENT

VILLA

Large space air conditioning in the dining and living room

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.

Medium Static Pressure Duct
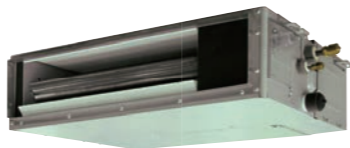
Mini Duct

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.

AIRSTAGE™
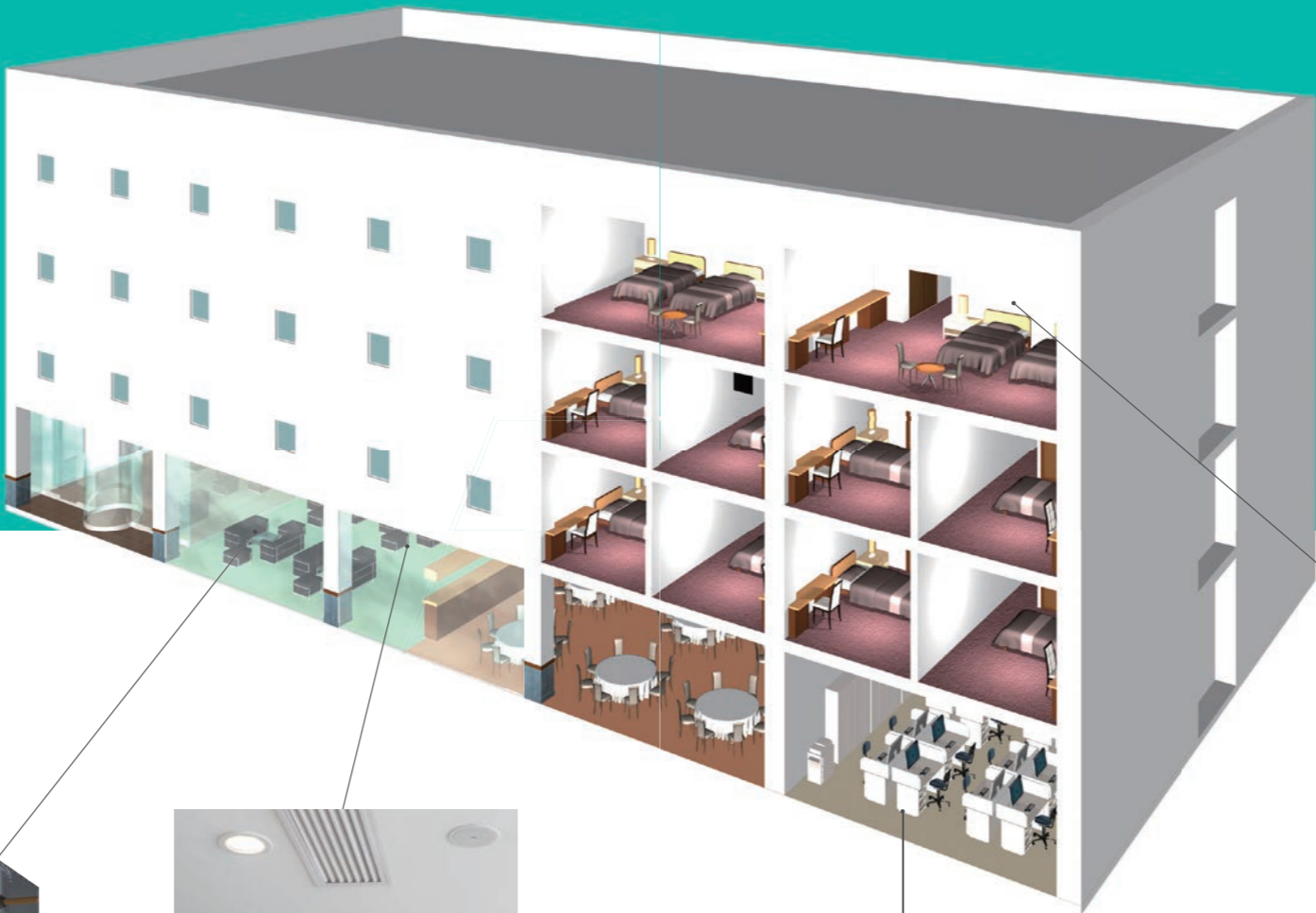
Large space air conditioning in the reception and lobby

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

Simple Remote Controller with sophisticated design

Suitable for hotels or offices as it is easily operated with no complex functions.
Large LCD screen & simple operation buttons White colored backlight on monitor enable easy operation in dark.

Ventilation of the whole hotel supported

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

EEV unit   Control unit

System controller
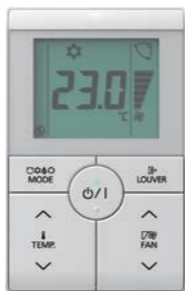
Centralized control of air conditioning in shared spaces

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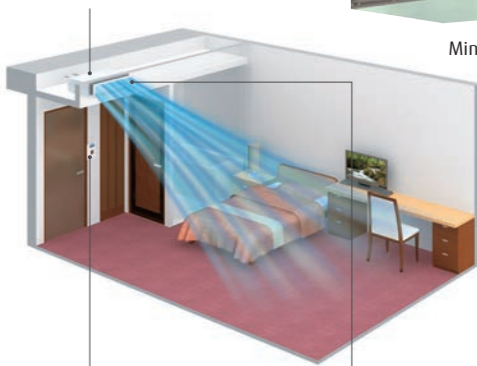
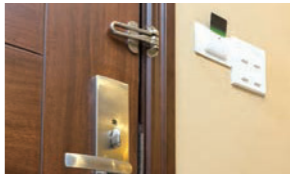## Guest room air conditioning with excellent comfort, energy saving and easy installation

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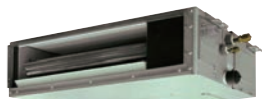
Mini Duct

Card key switch available
Using the card key prevents you from forgetting to switch off the air conditioner.
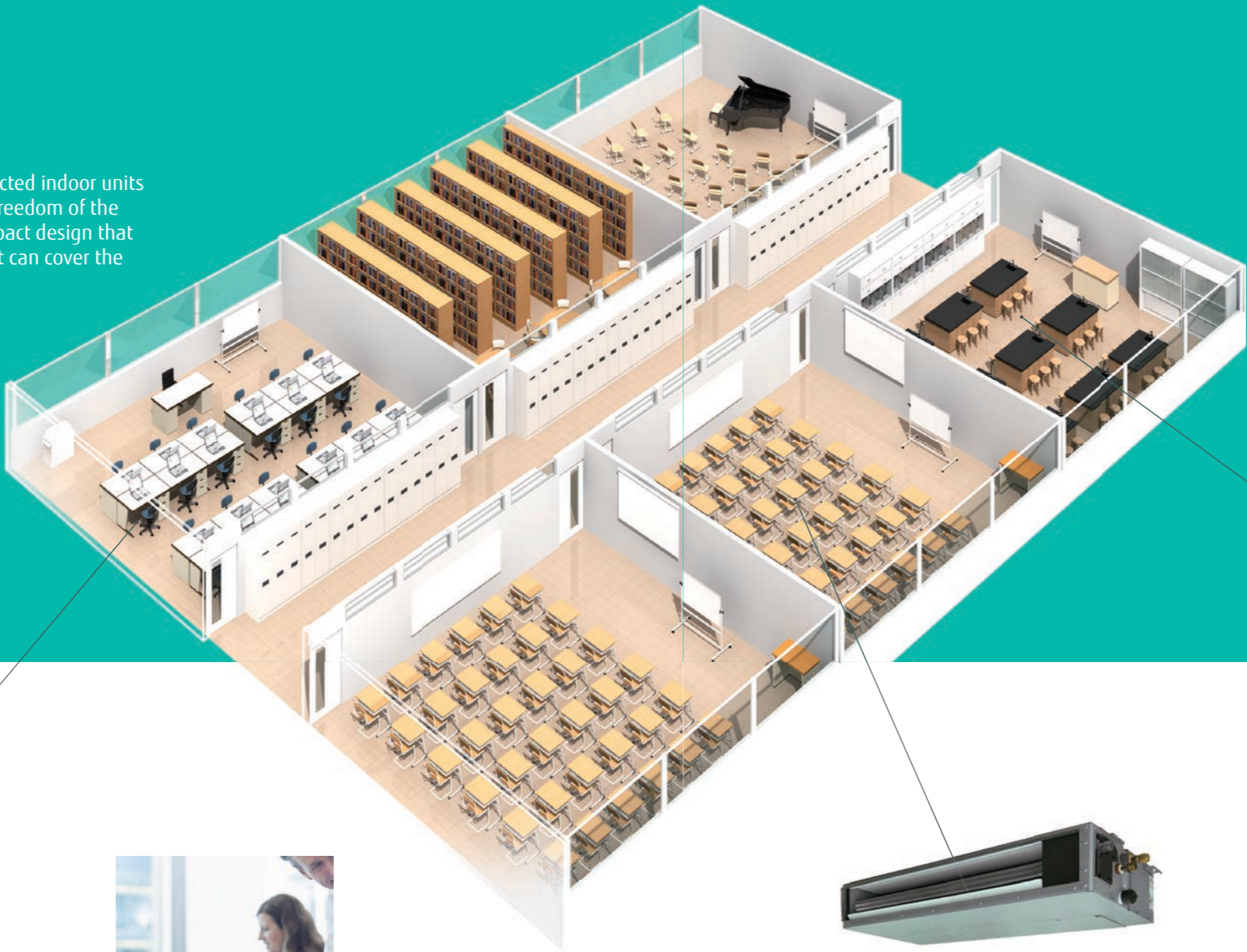
Comfortable airflow that switches up and down air directions
The Auto Louver Grille Kit achieves comfortable airflow by adjusting the air direction.

Use of an external connect switch   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.

AIRSTAGE™

Central Remote Controller UTY-DCGGZ1

LAN

PC

Wireless LAN

Router

Fixed IP, IP forwarding and open Port required

INTERNET

Tablet PC

Smartphone

iOS, Android and/or Windows

Centralized remote controller with improved operability

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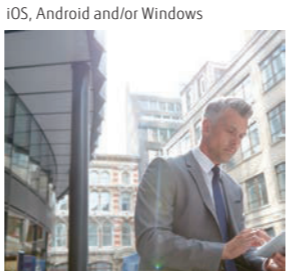
Control and monitoring

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

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.
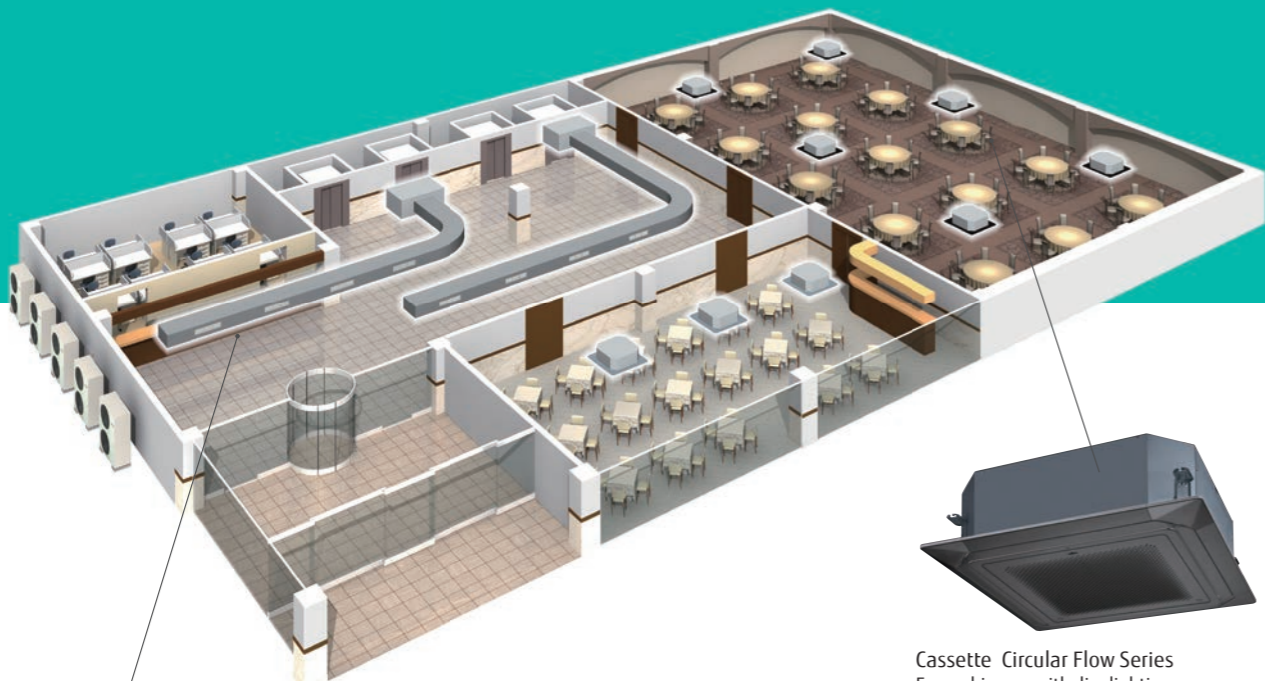
Cassette Circular Flow

Comfortable room air conditioning without airflow feeling

Circular Airflow Cassette blows out in all directions without temperature unevenness

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

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

3.2m

8.8m

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.

AIRSTAGE™

RESTAURANT

SHOPS

Cassette Circular Flow Series
For ambiences with dim lightings

Circular Flow Cassette

Slim type   Large type
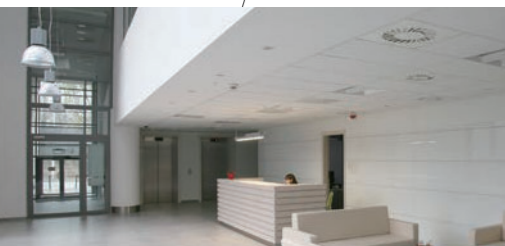
Appropriate air conditioning in the atrium space

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

High Static Pressure Duct

Uniform temperature air conditioning

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

Comfortable!

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)
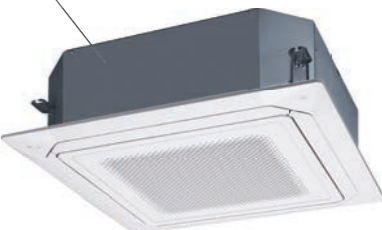
Commercial

LARGE BUILDING

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

AIRSTAGE™
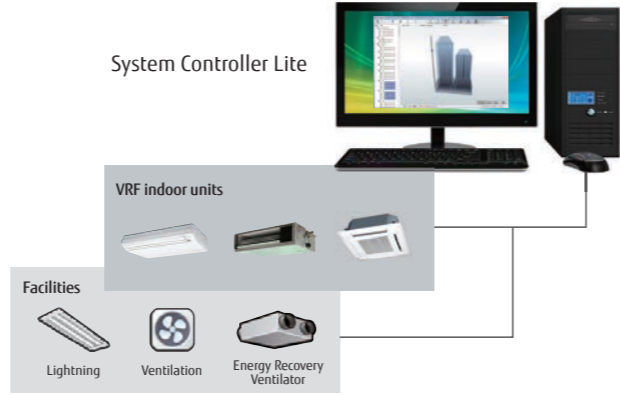
Individual air conditioning system for large buildings

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

AIRSTAGE™ V-III

TROPICAL **series**

8 HP - 54 HP 39 Models
- Space saving combination: 8 HP to 54 HP/24 models
- Energy efficiency combination: 16 HP to 46 HP/ 15 models

Centralized control of both air conditioning and lighting

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

System Controller Lite

VRF indoor units

Facilities

Lightning   Ventilation   Energy Recovery Ventilator

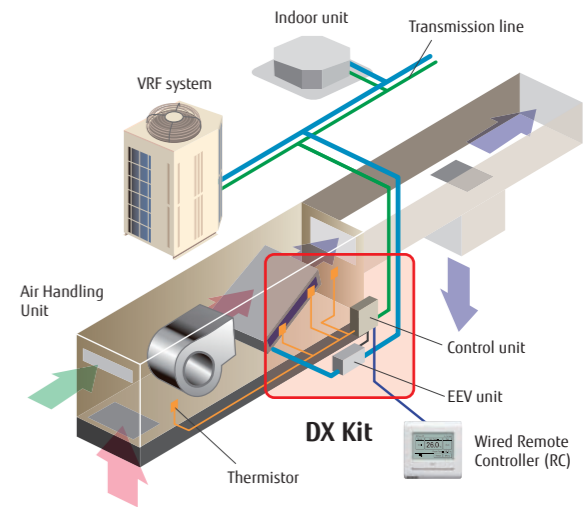## Difference in height Up to 110 m

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

Pressure Sensor Kit

Ventilation(AHU) linked with VRF system

Fujitsu General's DX Kit enable other manufacture's air handling units (AHU) to be incorporated into a Fujitsu VRF system. Possible to control comfortable air conditioning and ventilation.
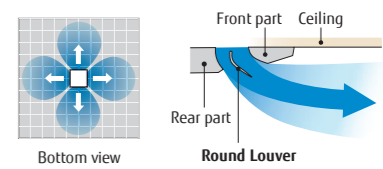
Indoor unit
Transmission line
VRF system
Air Handling Unit
Control unit
EEV unit
DX Kit
Thermistor
Wired Remote Controller (RC)
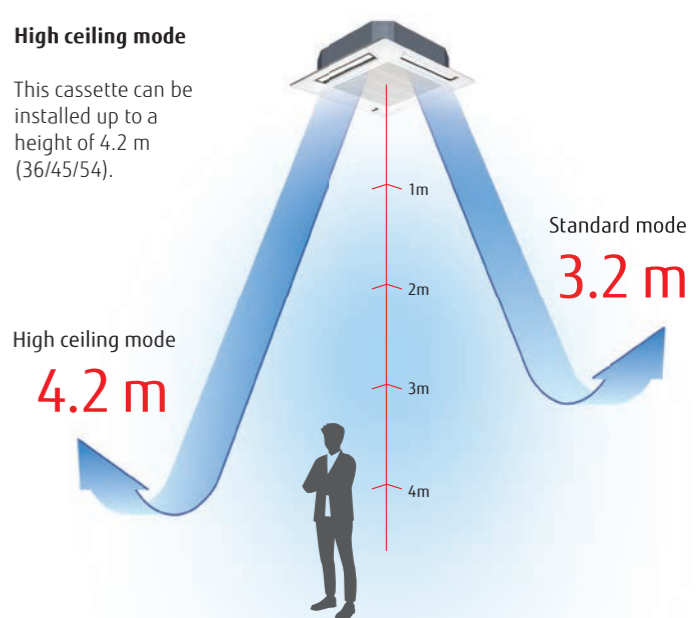
4-way Flow Cassette

Improvement of the airflow distribution

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

Front part   Ceiling
Rear part
Bottom view   **Round Louver**

High ceiling mode

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

Standard mode
3.2 m

High ceiling mode
4.2 m

1m
2m
3m
4m

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

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

AIRSTAGE™
CORE TECHNOLOGY

HIGH ENERGY EFFICIENCY

HIGH RELIABILITY

DESIGN FLEXIBILITY

MORE COMFORT

EASY INSTALLATION

EASY SERVICE & MAINTENANCE

AIRSTAGE™

HIGH ENERGY EFFICIENCY

Highly Energy Efficiency

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

Large VRF

New VRF model
Previous model

39 % UP
4.31
3.1

24 % UP
3.85
3.1

5
4
3
2
1
0

S Series | V-Ⅲ Tropical Series
8HP class

S Series | V-Ⅲ Tropical Series
10HP class

Small VRF

New VRF model
Current Split model

27 % UP
4.33
3.42

14 % UP
3.88
3.40

5
4
3
2
1
0

DUCT Split | J-Ⅲ Tropical Series
4HP class

DUCT Split | J-Ⅲ Tropical Series
6HP class
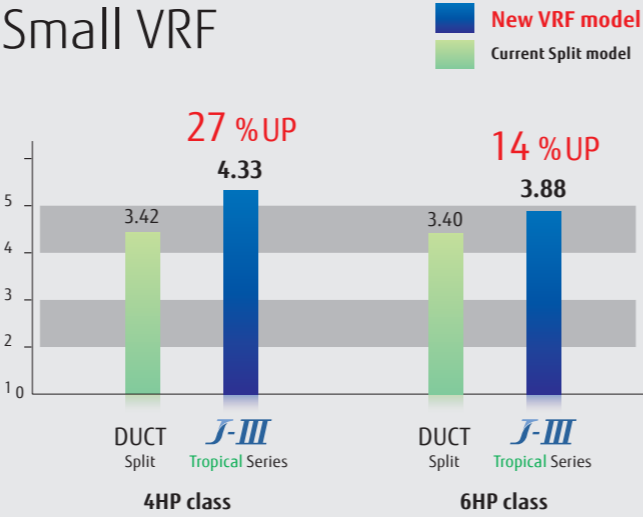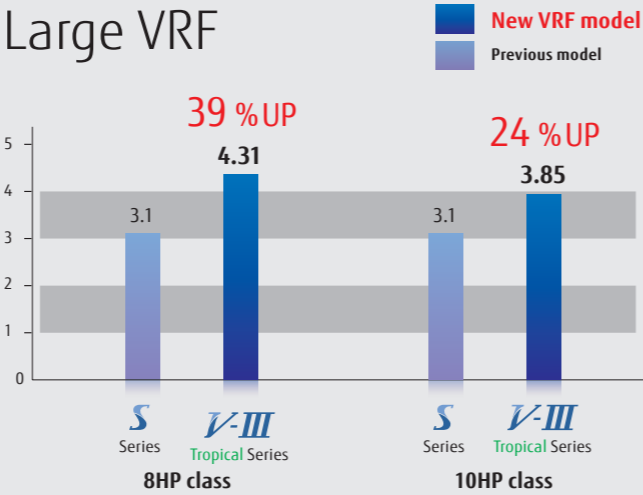
Operation Performance is Efficiently Controlled.
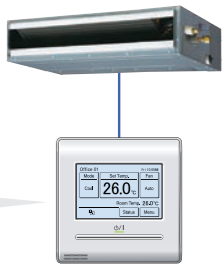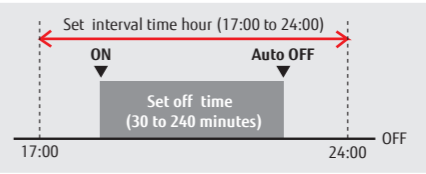
Room temperature set point limitation

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

(°C)   Heating   Cooling
30
28
26
24
22
20
18
16
14
12
10

Original Set Temp   Set point limitation setting
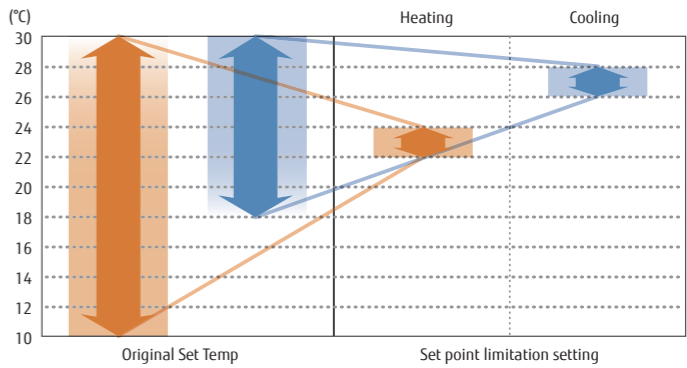
Auto-off timer

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.

Set interval time hour (17:00 to 24:00)

ON   Auto OFF

Set off time
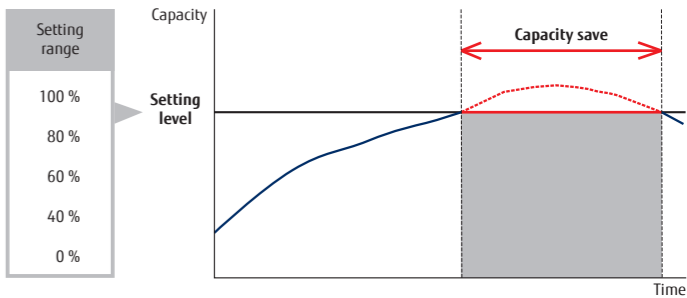(30 to 240 minutes)

17:00   24:00   OFF

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))
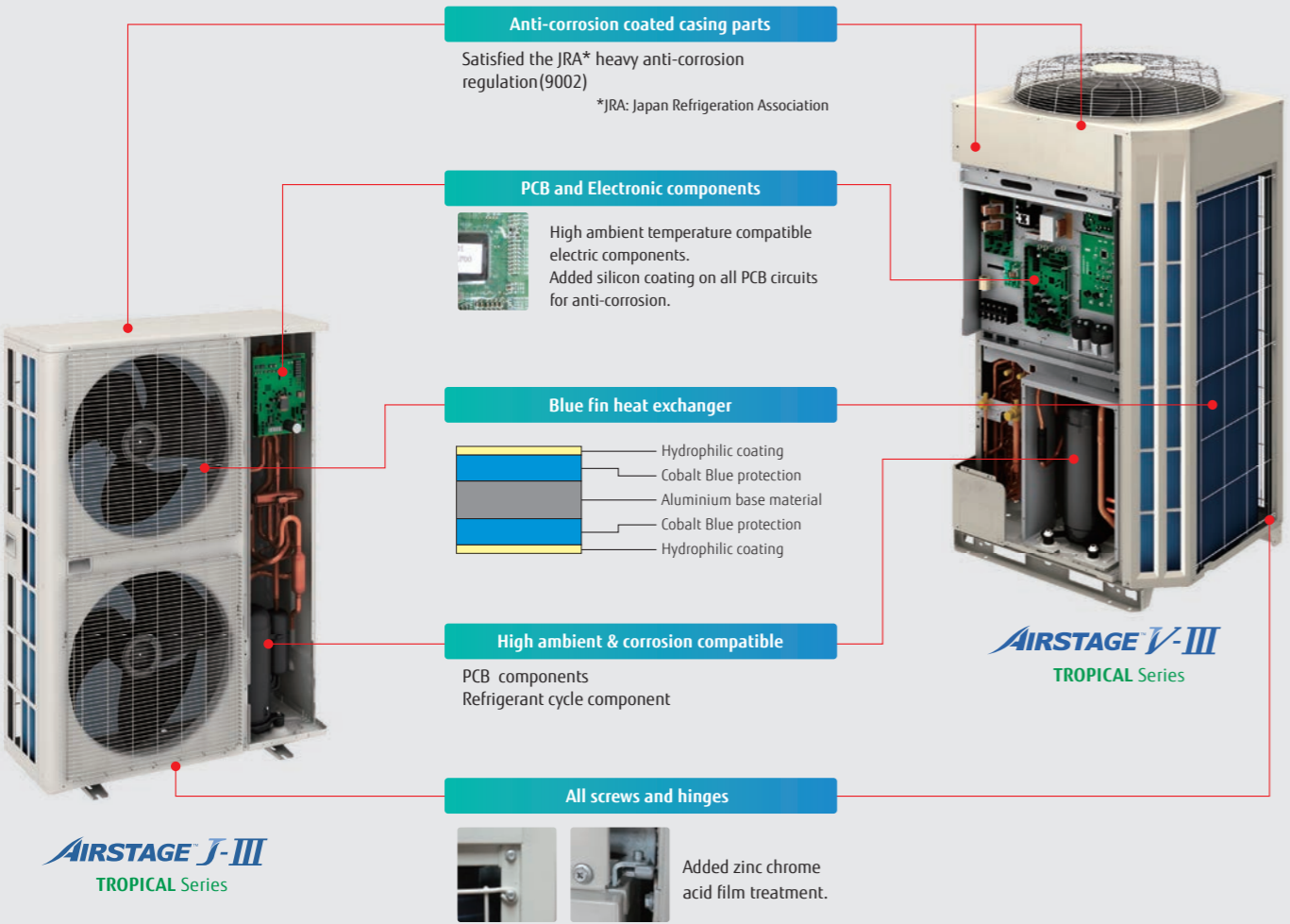
System Controller
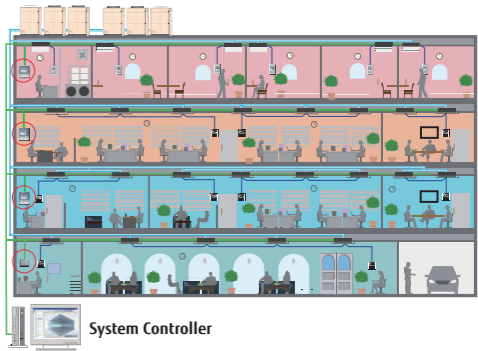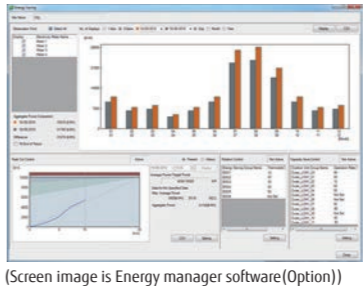
Capacity save operation

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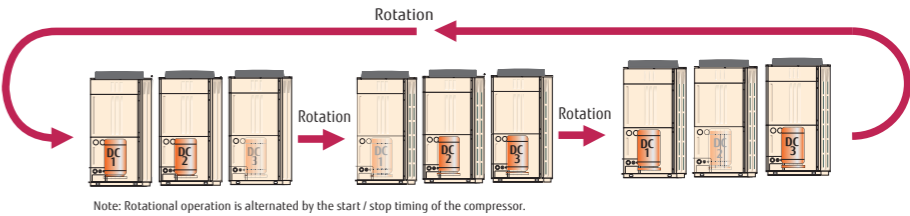The power consumption at peak is cut down and the maximum
load is suppressed.

Setting range

Capacity

Capacity save

100 %
80 %
60 %
40 %
0 %

Setting level

Time

HIGH RELIABILITY

Heavy anti-corrosion treatment design

TROPICAL SPEC

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

- Hydrophilic coating
- Cobalt Blue protection
- Aluminium base material
- Cobalt Blue protection
- Hydrophilic coating

High ambient & corrosion compatible

PCB components
Refrigerant cycle component

All screws and hinges

Added zinc chrome acid film treatment.

AIRSTAGE V-III
TROPICAL Series

AIRSTAGE 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.

Rotation

Rotation   Rotation   Rotation

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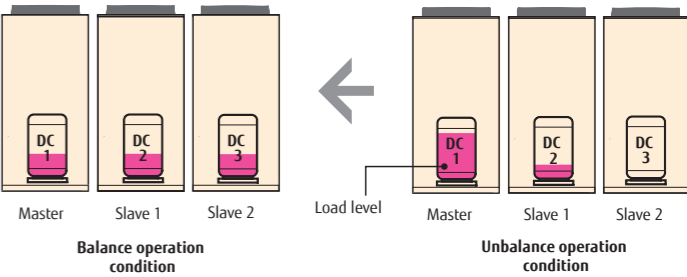
Backup operation

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

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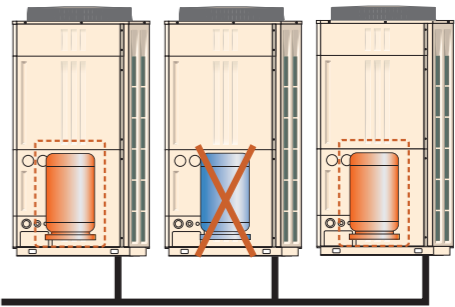
Advanced refrigerant control

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.

| DC 1 | DC 2 | DC 3 | | DC 1 | DC 2 | DC 3 |

Master   Slave 1   Slave 2   Load level   Master   Slave 1   Slave 2

Balance operation condition   **Unbalance operation condition**

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.
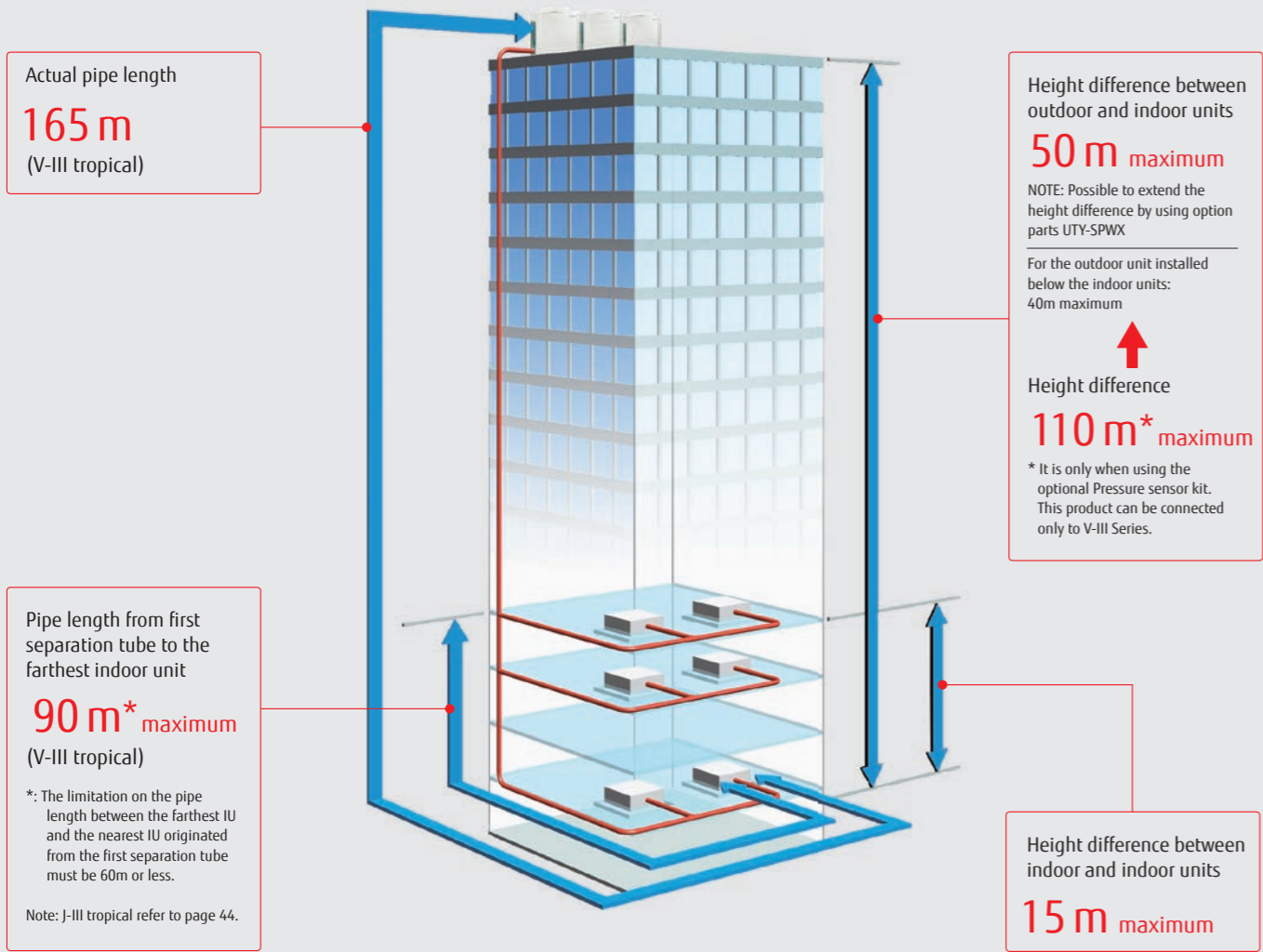
Completely vapourised refrigerant   from Evaporator

Compressor

Large sized Accumulator

Liquid refrigerant (stays inside of accumulator)
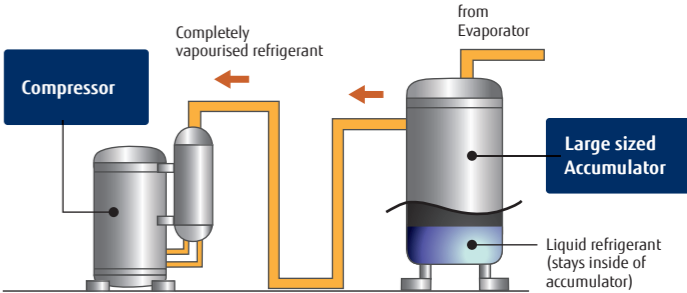
Oil Recovery operation

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

DESIGN FLEXIBILITY

82 Pa
(V-III tropical)

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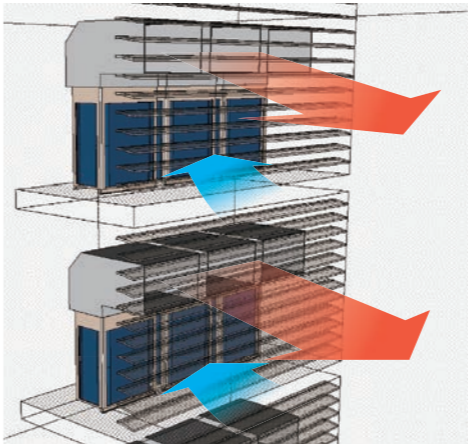(For V-III tropical)

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.

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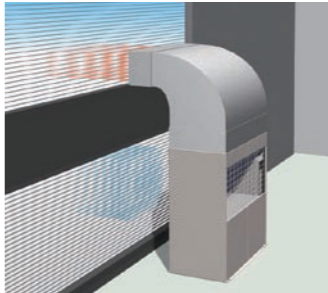
V-III tropical
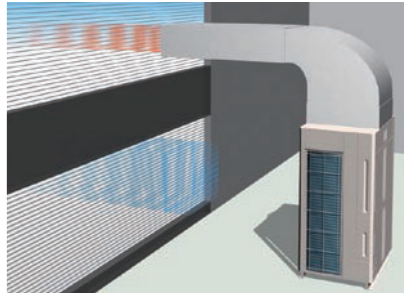
Large diameter fan and DC motor has been utilized allowing an external static pressure of 82Pa. This is approximately 2.6 times greater than the previous model.

High capacity connection

AIRSTAGE V-III TROPICAL Series

8HP-54HP
39models

Connectable indoor unit capacity range
50 % to 130 %

Connectable indoor unit number
up to **55**
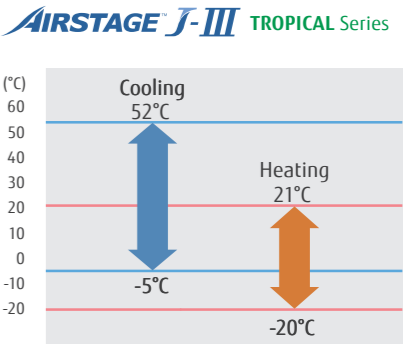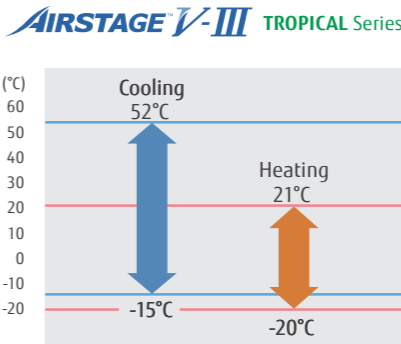
AIRSTAGE J-III TROPICAL Series

4HP-6HP
6models

Connectable indoor unit capacity range
50 % to 130 %

Connectable indoor unit number
up to **9**

High ambient operation design TROPICAL SPEC

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

AIRSTAGE V-III TROPICAL Series

(°C)
60
50
40
30
20
10
0
-10
-20

Cooling
52°C

Heating
21°C

-15°C

-20°C

AIRSTAGE J-III TROPICAL Series

(°C)
60
50
40
30
20
10
0
-10
-20

Cooling
52°C

Heating
21°C

-5°C

-20°C

*. 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.
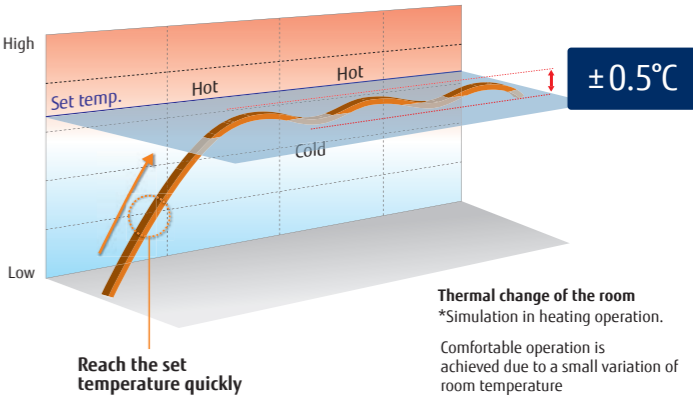
35°C ambient temp.

46°C ambient temp.

Keep rated capacity!

Cooling capacity (kW)

40

20

0

8HP   10HP   14HP
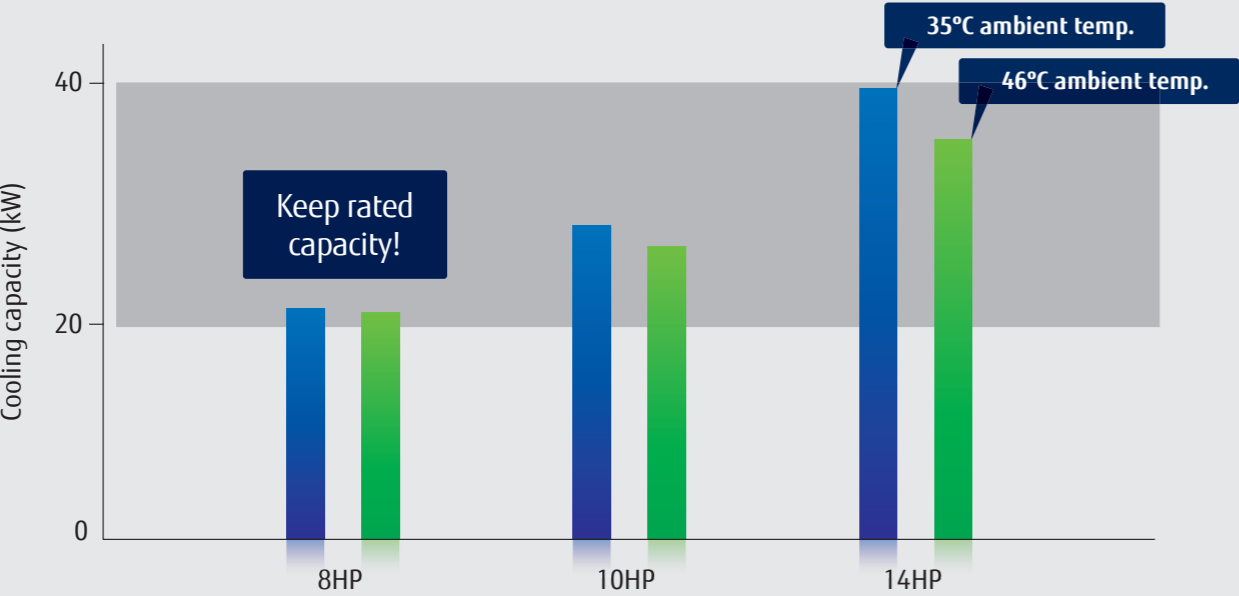
Touch Panel Wired Remote Controller

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.

Large-sized LCD touch panel screen

Backlight

Large ON/OFF button

Office 01   Fri 10:00AM
Mode   Set Temp.   Fan
Cool   **26.0**℃   Auto
          Room Temp. 26.0℃
          Status   Menu

Room temperature display

Setting status display

Multi support language

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.

High

Low

Set temp.   Hot   Hot

Cold

±0.5℃

Reach the set temperature quickly

Thermal change of the room
*Simulation in heating operation.

Comfortable operation is achieved due to a small variation of room temperature

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.

Quiet priority setting
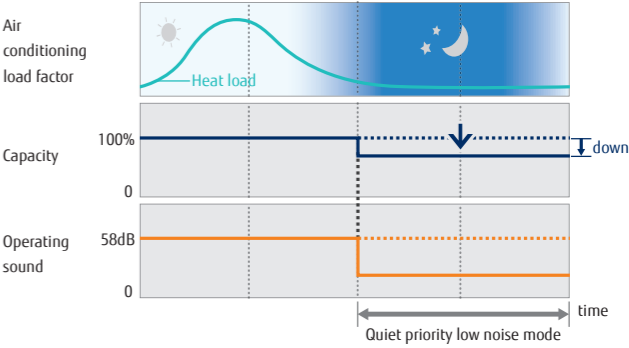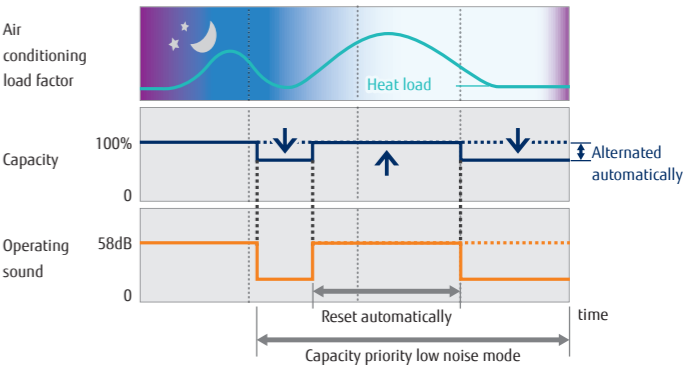
Air conditioning load factor

Heat load

Capacity   100%   0   down

Operating sound   58dB   0   time

Quiet priority low noise mode

Capacity priority setting

Air conditioning load factor

Heat load

Capacity   100%   0   Alternated automatically

Operating sound   58dB   0

Reset automatically   time

Capacity priority low noise mode

Non-stop oil recovery operation

A comfortable room condition is maintained during oil recovery mode because the product continues to operate without stopping the cooling or heating operation.
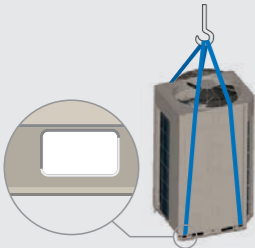
*: AIRSTAGE VR-II Series is not available.

Previous model   V-III Series   (Heating operation)

Operation stopped at oil recovery

Non-stop oil recovery operation

ON
OFF   Time

ON   Time
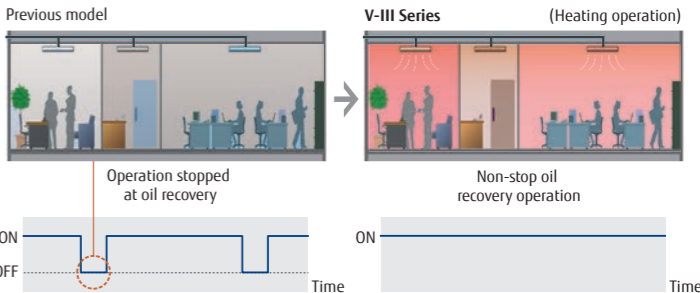
EASY INSTALLATION
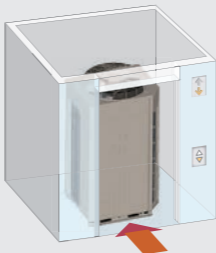
Easily transported

Easily craned using lifting belt hooks
Design of outdoor unit allows for lifting straps to be used

Transporting by forklift
Transport with forklift is possible.
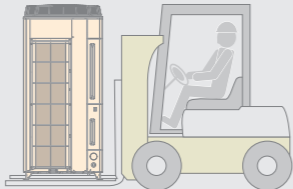
**Can be transported in a small elevator**

Easy access

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

Expansion of work space

Reduced installation intervals by front access
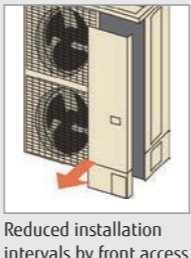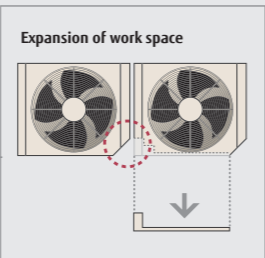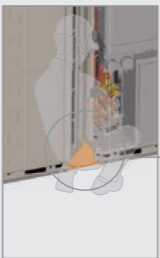
Flexible piping connection

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

Flexible installation by 4 way pipe direction
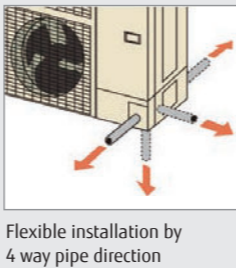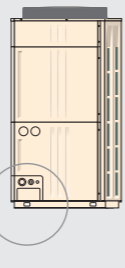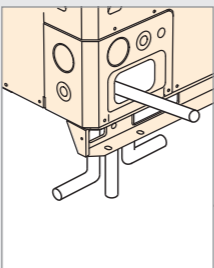
Simple wiring work

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

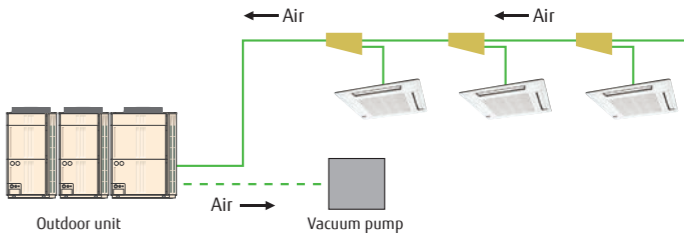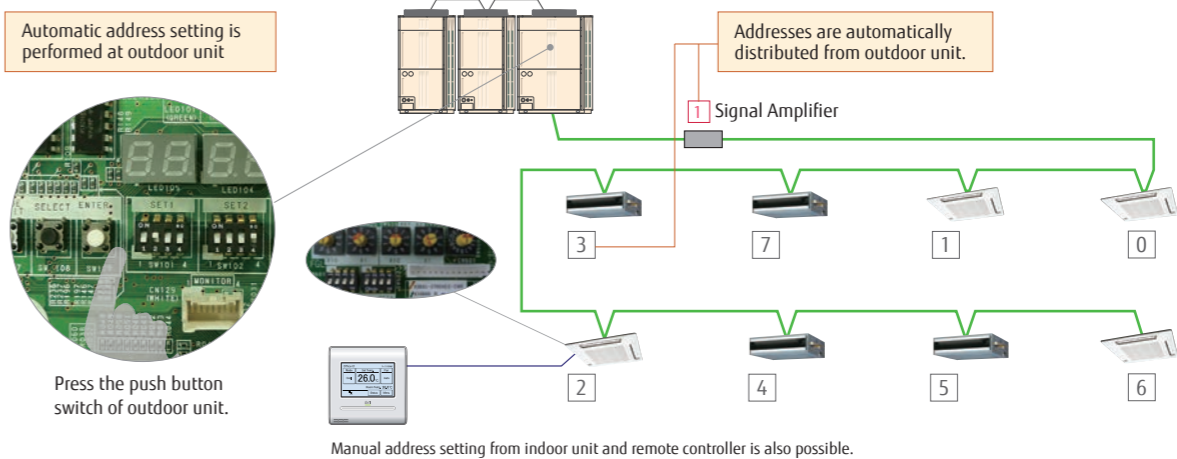or
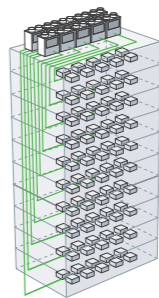
Parallel connection
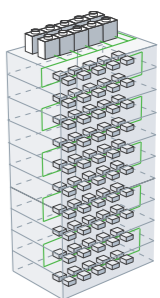
Serial connection

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.

Air

Air

Outdoor unit

Air

Vacuum pump

Automatic address setting

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

Automatic address setting is performed at outdoor unit

Addresses are automatically distributed from outdoor unit.

1 Signal Amplifier

Press the push button switch of outdoor unit.

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

Easy commissioning by Service Tool

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

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.
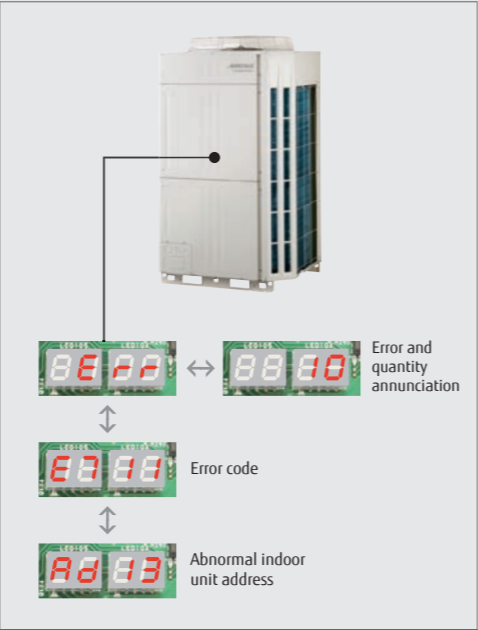
Wired Remote Controller

System number
001: Controller
002: Indoor unit   Error code

Unit number

Simple Remote Controller

Remote controller address

Error code

Wired Remote Controller (Touch panel)

Error status / Error history
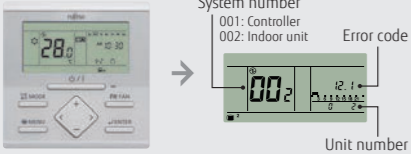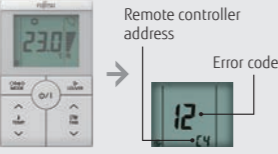
Error History				Page 1/ 3
No.	Date	Time	Address	Code
1	2012/ 8/ 1	11:00AM	002~01	141
2	2012/ 7/30	2:55AM	002~02	143
3	2012/ 7/25	9:50AM	002~02	143
4	2012/ 7/23	11:00AM	002~01	141
5	2012/ 7/22	11:00AM	002~01	141
6	2012/ 7/21	11:00AM	002~01	141
Back		Next Page	Erase All	
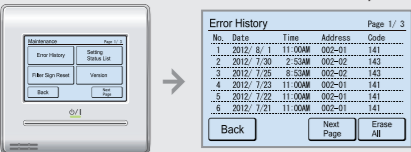
Error status can be checked easily by outdoor unit display

Error and quantity annunciation

Error code

Abnormal indoor unit address

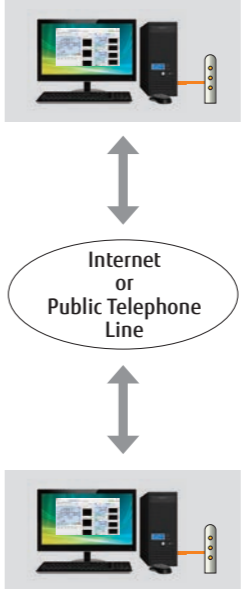## Error diagnosis by Service Tool

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.

Outdoor unit

Transmission line

Indoor unit

Service Tool
UTY-ASGXZ1
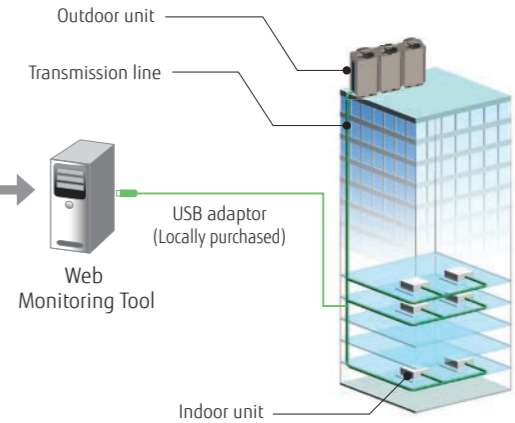Software

USB adaptor
(Locally purchased)
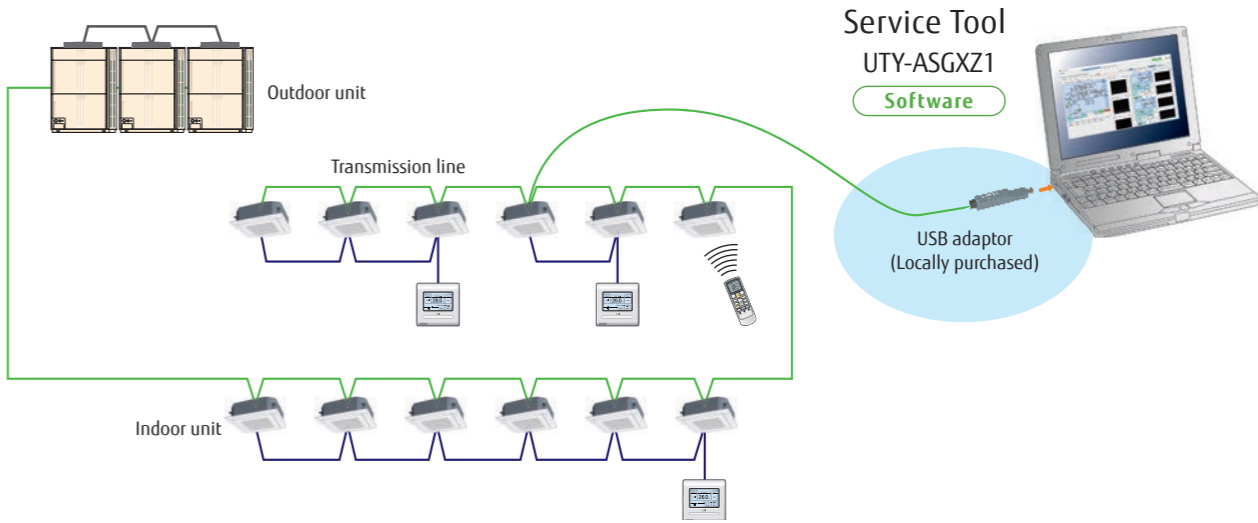
Remote monitoring

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

Monitoring Side

Internet
or
Public Telephone
Line

VRF Network System Side

Outdoor unit

Transmission line

USB adaptor
(Locally purchased)

Web
Monitoring Tool

Indoor unit

AIRSTAGE™
SERIES

The AIRSTAGE Series outdoor units were developed with structural designs and advanced inverter technology to provide higher efficiency.

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

AIRSTAGE™ LINE-UP

HEAT PUMP TYPE AIRSTAGE J-III TROPICAL Series

HEAT PUMP TYPE AIRSTAGE V-III TROPICAL Series

AIRSTAGE™ LINE-UP

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

Outdoor units range

HP	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
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	450,000	468,000	486,000
Ton	3.0	3.8	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0	37.5	39.0	40.5

AIRSTAGE J-III TROPICAL Series — Heat Pump

High Efficiency (Single phase): AJH040LBTBHN, AJH045LBTBHN, AJH054LBTBHN

High Efficiency (3 phase): AJH040LETBHN, AJH045LETBHN, AJH054LETBHN

AIRSTAGE V-III TROPICAL Series — Heat Pump

Space saving: AJH072LN✱✱H, AJH090LN✱✱H, AJH108LN✱✱H, AJH126LN✱✱H, AJH144LN✱✱H, AJH162LN✱✱H, AJH180LN✱✱H, AJH198LN✱✱H, AJH216LN✱✱H, AJH234LN✱✱H, AJH252LN✱✱H, AJH270LN✱✱H, AJH288LN✱✱H, AJH306LN✱✱H, AJH324LN✱✱H, AJH342LN✱✱H, AJH360LN✱✱H, AJH378LN✱✱H, AJH396LN✱✱H, AJH414LN✱✱H, AJH432LN✱✱H, AJH450LN✱✱H, AJH468LN✱✱H, AJH486LN✱✱H

High Efficiency: AJH144LN✱✱HH, AJH162LN✱✱HH, AJH180LN✱✱HH, AJH216LN✱✱HH, AJH234LN✱✱HH, AJH252LN✱✱HH, AJH270LN✱✱HH, AJH288LN✱✱HH, AJH306LN✱✱HH, AJH324LN✱✱HH, AJH342LN✱✱HH, AJH360LN✱✱HH, AJH378LN✱✱HH, AJH396LN✱✱HH, AJH414LN✱✱HH

AJH＿＿LN✱✱H(H) : AJH＿＿LNTDH(H), AJH＿＿LNLCH(H)

HEAT PUMP TYPE

AIRSTAGE™ J-III TROPICAL SPEC

TROPICAL Series

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

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

EER / COP

[3 phase]

	4HP	5HP	6HP
EER	4.33	4.05	3.88
COP	5.01	4.70	4.41

[Single phase]

	4HP	5HP	6HP
EER	4.17	3.92	3.71
COP	4.86	4.51	4.23

6HP class

8 % UP
	J-II	J-III TROPICAL
	3.45	3.71

7 % UP
	J-II	J-III TROPICAL
	3.95	4.23

Advanced high efficiency technology

Large propeller fan
High performance and low noise realized by large propeller and optimization of angle.
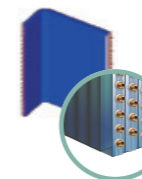
Large heat exchanger
Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.

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

effect

Pressure

Cooling performance improved

Enthalpy
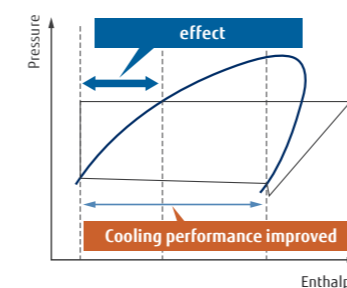
All Inverter

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

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.

Outdoor unit

Separation tube

Header

Liquid pipe
Gas pipe

Indoor unit

Indoor unit

AIRSTAGE J-III
TROPICAL Series

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.
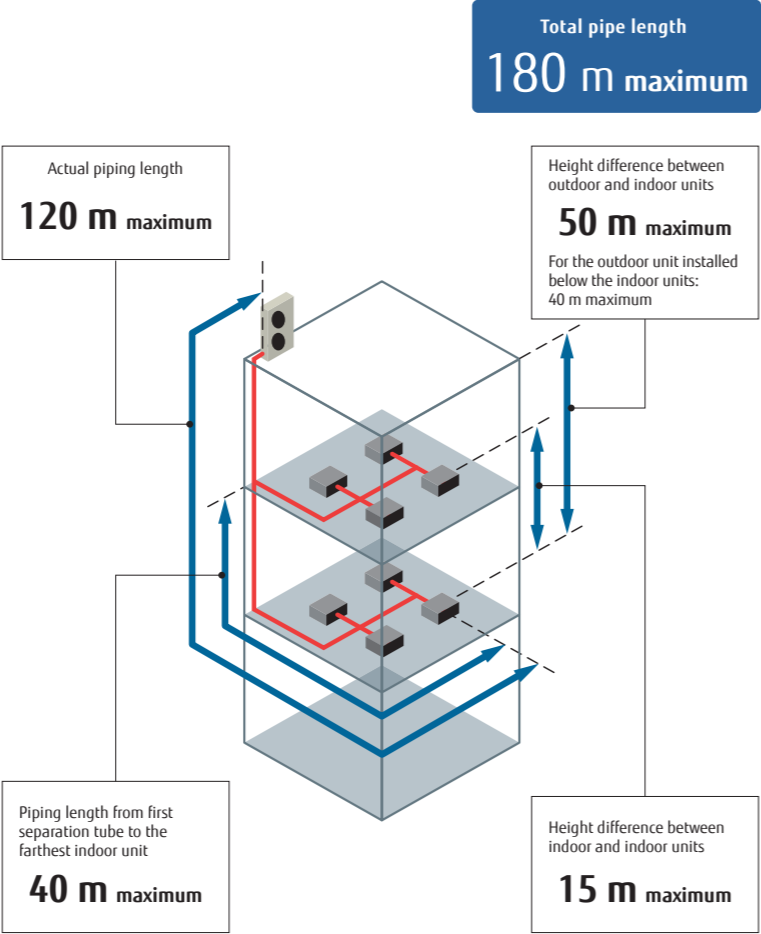
Total pipe length
180 m maximum

Actual piping length
120 m maximum

Height difference between outdoor and indoor units
50 m maximum
For the outdoor unit installed below the indoor units: 40 m maximum

Piping length from first separation tube to the farthest indoor unit
40 m maximum

Height difference between indoor and indoor units
15 m maximum

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.

Previous model

J-III Series   (Heating operation)

Operation stopped at oil recovery

Non-stop oil recovery operation

ON
OFF
Time

ON
Time

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

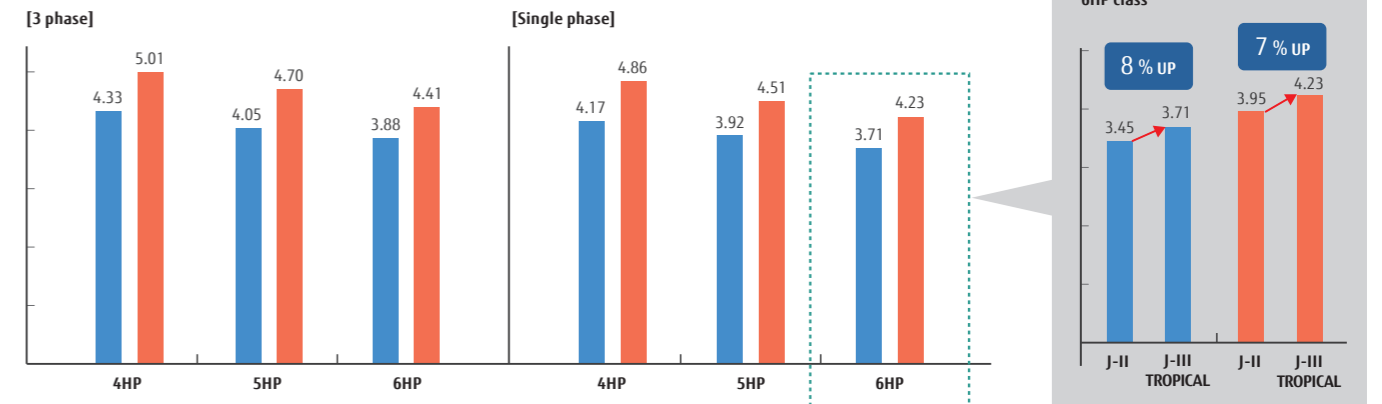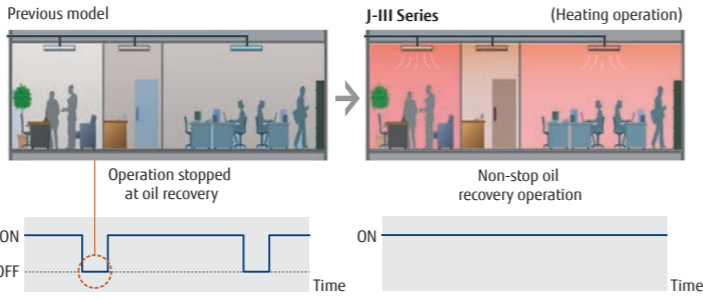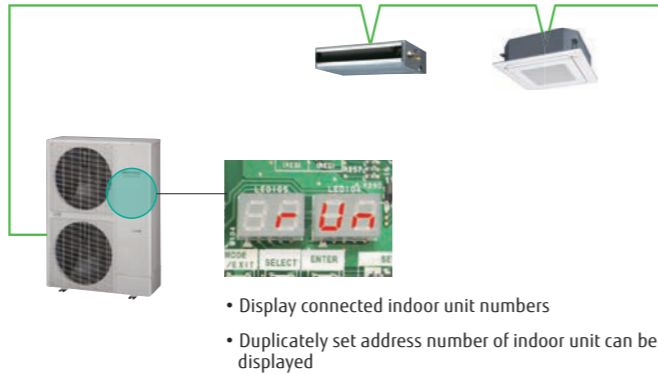|	HP	4	5	6	4	5	6
Rating Capacity range	Btu/h	36,000	45,000	54,000	36,000	45,000	54,000
	Ton	3.0	3.8	4.5	3.0	3.8	4.5
Model name		AJH040LBTBHN	AJH045LBTBHN	AJH054LBTBHN	AJH040LETBHN	AJH045LETBHN	AJH054LETBHN
Maximum Connectable Indoor Unit		1-7	1-8	1-9	1-7	1-8	1-9
Power source		Single phase, ~230V, 50Hz			3 phase, ~400V, 50Hz		
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 m³/h(l/s)	6,200(1,722)	6,400(1,778)	6,900(1,916)	6,200(1,722)	6,400(1,778)	6,900(1,916)
Sound pressure level	Cooling dB (A)	50	51	53	50	51	53
	Heating	52	53	55	52	53	55
Net Dimensions	Height	1,334	1,334	1,334	1,334	1,334	1,334
	Width mm	970	970	970	970	970	970
	Depth	370	370	370	370	370	370
Net Weight	kg	120	120	120	120	120	120
Refrigerant	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

Models : AJH040LBTBHN / AJH045LBTBHN / AJH054LBTBHN / AJH040LETBHN / AJH045LETBHN / AJH054LETBHN   (Unit : mm)

Terminal blocks (Transmission)
Terminal blocks (Power)
3-Way valve (Liquid)
3-Way valve (Gas)
Ø28 (Cable port)
Pipe port
Detail
Pipe & cable port
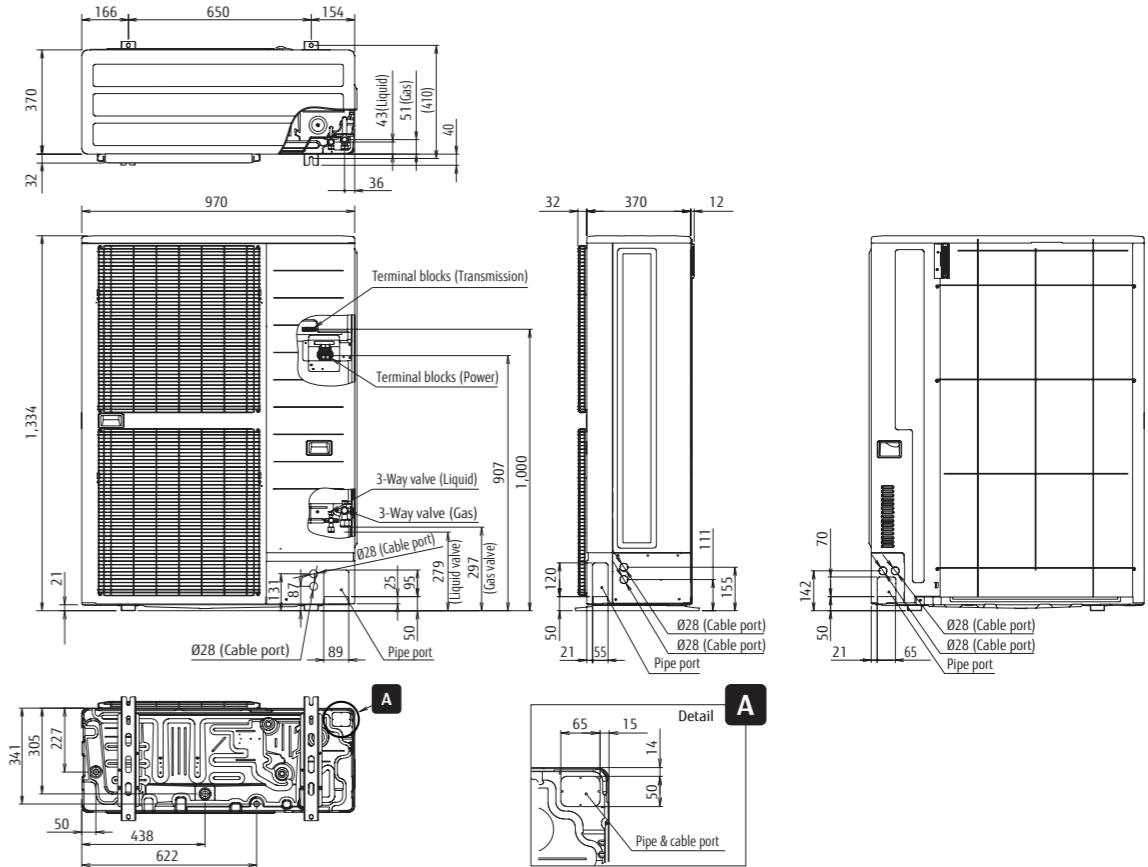
HEAT PUMP TYPE

AIRSTAGE™ 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%
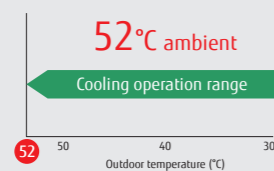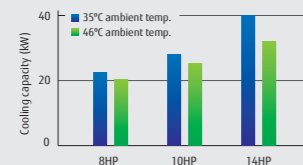
System Outline

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

52°C ambient

Cooling operation range

52	50	40	30

Outdoor temperature (°C)

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

- 35°C ambient temp.
- 46°C ambient temp.

Cooling capacity (kW)

40 / 20 / 0

8HP 10HP 14HP

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.
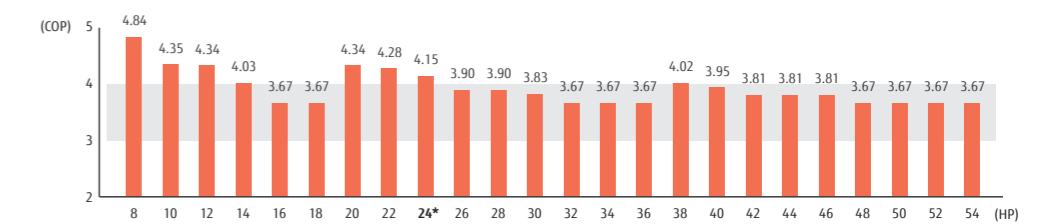
Outdoor unit
Separation tube
Header
Liquid pipe
Gas pipe
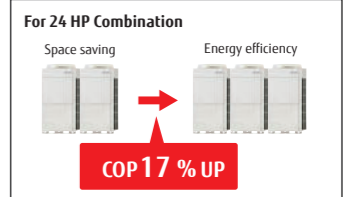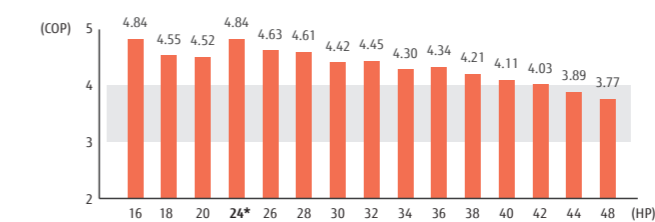Indoor unit
Indoor unit
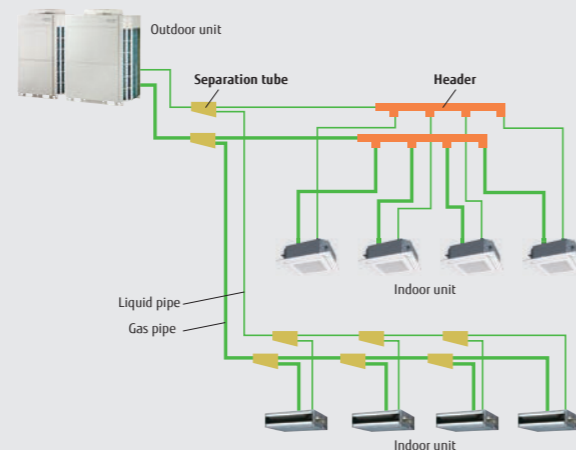
Features

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

Space saving combination

(COP)

HP	8	10	12	14	16	18	20	22	24*	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
COP	4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90	3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67

Energy efficiency combination

(COP)

HP	16	18	20	24*	26	28	30	32	34	36	38	40	42	44	48
COP	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

For 24 HP Combination

Space saving → Energy efficiency

COP 17 % UP

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

0.1Hz
Capacity
Inverter frequency
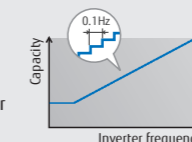
Subcool heat exchanger
High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.

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.

Compressor Load level
High efficient operation   Inefficient operation
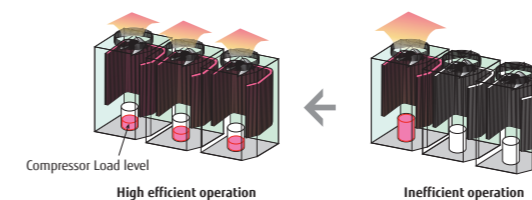
Heat exchanger refrigerant control
The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.

High efficient refrigerant flow control

Fan
Large intake airflow
Small intake airflow
Heat exchanger
Outdoor unit
Larger refrigerant flow
EEV
Heat exchanger Distributor

Space saving combination

72,000Btu/h (8HP)	90,000Btu/h (10HP)	108,000Btu/h (12HP)	126,000Btu/h (14HP)	144,000Btu/h (16HP)
AJH072LN✳✳H UNIT : AJH072LN✳✳H	AJH090LN✳✳H UNIT : AJH090LN✳✳H	AJH108LN✳✳H UNIT : AJH108LN✳✳H	AJH126LN✳✳H UNIT : AJH126LN✳✳H	AJH144LN✳✳H UNIT : AJH144LN✳✳H

162,000Btu/h (18HP)	180,000Btu/h (20HP)	198,000Btu/h (22HP)	216,000Btu/h (24HP)	234,000Btu/h (26HP)
AJH162LN✳✳H UNIT : AJH162LN✳✳H	AJH180LN✳✳H UNIT : AJH090/090LN✳✳H	AJH198LN✳✳H UNIT : AJH126/072LN✳✳H	AJH216LN✳✳H UNIT : AJH126/090LN✳✳H	AJH234LN✳✳H UNIT : AJH144/090LN✳✳H

252,000Btu/h (28HP)	270,000Btu/h (30HP)	288,000Btu/h (32HP)	306,000Btu/h (34HP)	324,000Btu/h (36HP)
AJH252LN✳✳H UNIT : AJH162/090LN✳✳H	AJH270LN✳✳H UNIT : AJH144/126LN✳✳H	AJH288LN✳✳H UNIT : AJH144/144LN✳✳H	AJH306LN✳✳H UNIT : AJH162/144LN✳✳H	AJH324LN✳✳H UNIT : AJH162/162LN✳✳H

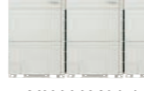| 342,000Btu/h (38HP)	360,000Btu/h (40HP)	378,000Btu/h (42HP)	396,000Btu/h (44HP)	414,000Btu/h (46HP)
AJH342LN✳✳H UNIT : AJH162/090/090LN✳✳H	AJH360LN✳✳H UNIT : AJH144/126/090LN✳✳H	AJH378LN✳✳H UNIT : AJH144/144/090LN✳✳H	AJH396LN✳✳H UNIT : AJH162/144/090LN✳✳H	AJH414LN✳✳H UNIT : AJH162/162/090LN✳✳H

432,000Btu/h (48HP)	450,000Btu/h (50HP)	468,000Btu/h (52HP)	486,000Btu/h (54HP)	
AJH432LN✳✳H UNIT : AJH144/144/144LN✳✳H	AJH450LN✳✳H UNIT : AJH162/144/144LN✳✳H	AJH468LN✳✳H UNIT : AJH162/162/144LN✳✳H	AJH486LN✳✳H UNIT : AJH162/162/162LN✳✳H	

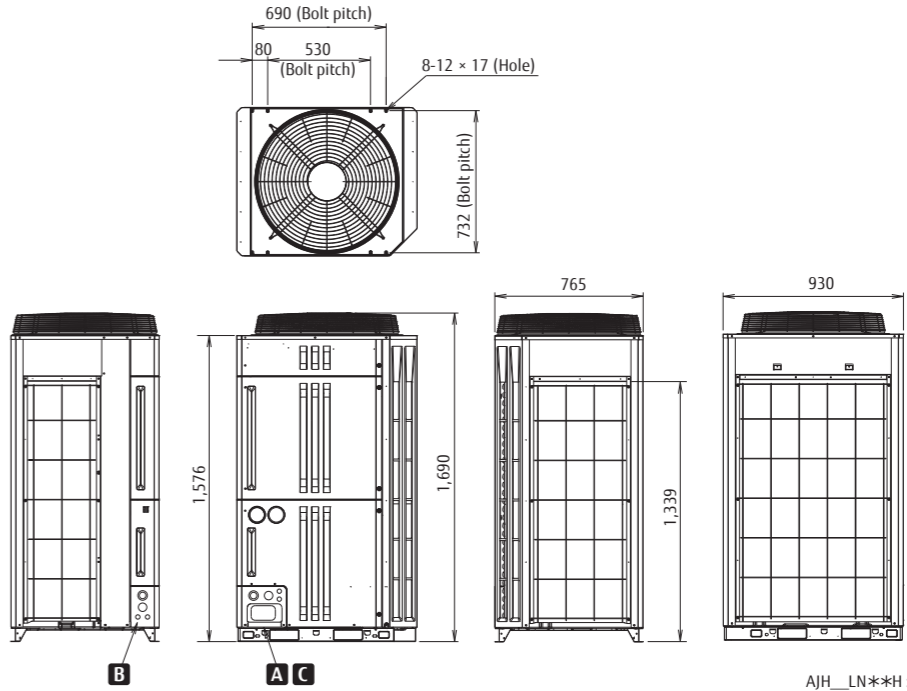AJH__LN✳✳H : AJH__LNTDH, AJH__LNLCH

Energy efficiency combination

144,000Btu/h (16HP)	162,000Btu/h (18HP)	180,000Btu/h (20HP)	216,000Btu/h (24HP)	234,000Btu/h (26HP)
AJH144LN✳✳HH UNIT : AJH072/072LN✳✳H	AJH162LN✳✳HH UNIT : AJH090/072LN✳✳H	AJH180LN✳✳HH UNIT : AJH108/072LN✳✳H	AJH216LN✳✳HH UNIT : AJH072/072/072LN✳✳H	AJH234LN✳✳HH UNIT : AJH090/072/072LN✳✳H

252,000Btu/h (28HP)	270,000Btu/h (30HP)	288,000Btu/h (32HP)	306,000Btu/h (34HP)	324,000Btu/h (36HP)
AJH252LN✳✳HH UNIT : AJH108/072/072LN✳✳H	AJH270LN✳✳HH UNIT : AJH126/072/072LN✳✳H	AJH288LN✳✳HH UNIT : AJH108/108/072LN✳✳H	AJH306LN✳✳HH UNIT : AJH126/108/072LN✳✳H	AJH324LN✳✳HH UNIT : AJH108/108/108LN✳✳H

342,000Btu/h (38HP)	360,000Btu/h (40HP)	378,000Btu/h (42HP)	396,000Btu/h (44HP)	414,000Btu/h (46HP)
AJH342LN✳✳HH UNIT : AJH126/108/108LN✳✳H	AJH360LN✳✳HH UNIT : AJH126/126/108LN✳✳H	AJH378LN✳✳HH UNIT : AJH126/126/126LN✳✳H	AJH396LN✳✳HH UNIT : AJH144/126/126LN✳✳H	AJH414LN✳✳HH UNIT : AJH144/144/126LN✳✳H

AJH__LN✳✳H(H) : AJH__LNTDH(H), AJH__LNLCH(H)

Dimensions

8,10HP : AJH072LN✳✳H / AJH090LN✳✳H   (Unit : mm)

690 (Bolt pitch)
80 · 530 (Bolt pitch)
8-12 × 17 (Hole)
732 (Bolt pitch)
765
930
1,576
1,690
1,339

B   A C

AJH__LN✳✳H : AJH__LNTDH, AJH__LNLCH

12,14,16,18HP : AJH108LN✳✳H / AJH126LN✳✳H / AJH144LN✳✳H / AJH162LN✳✳H   (Unit : mm)

1,000 (Bolt pitch)
80 · 840 (Bolt pitch)
8-12×7 (Hole)
732 (Bolt pitch)
765
1,240
1,690

B   A C

A Front side knockout position
73
43
Ø 34.5
Power supply cable port
Ø 43.7
Power supply cable port
Ø 50
Power supply cable port
Ø 22.2
Transmission cable port
Ø 22.2
Transmission cable port
95
75
Pipe port
10
100
125
199

B Left side knockout position
Ø 50
Power supply cable port
Ø 34.5
Power supply cable port
Ø 43.7
Power supply cable port
Ø 22.2
Transmission cable port
Ø 22.2
Transmission cable port

C Bottom side knockout position
Top view
Pipe port
82 · 80
42 · 197

AJH__LN✳✳H : AJH__LNTDH, AJH__LNLCH

AIRSTAGE V-III — TROPICAL Series

Space Saving Combination

	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Rating Capacity range	Btu/h	72,000	90,000	108,000	126,000	144,000	162,000	180,000	198,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000	450,000	468,000	486,000
	Ton	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	37.5	39.0	40.5
Model name		AJH072LN**H	AJH090LN**H	AJH108LN**H	AJH126LN**H	AJH144LN**H	AJH162LN**H	AJH180LN**H	AJH198LN**H	AJH216LN**H	AJH234LN**H	AJH252LN**H	AJH270LN**H	AJH288LN**H	AJH306LN**H	AJH324LN**H	AJH342LN**H	AJH360LN**H	AJH378LN**H	AJH396LN**H	AJH414LN**H	AJH432LN**H	AJH450LN**H	AJH468LN**H	AJH486LN**H
Unit 1		AJH072LN**H	AJH090LN**H	AJH108LN**H	AJH126LN**H	AJH144LN**H	AJH162LN**H	AJH090LN**H	AJH126LN**H	AJH126LN**H	AJH144LN**H	AJH162LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H	AJH162LN**H	AJH162LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H	AJH162LN**H	AJH144LN**H	AJH162LN**H	AJH162LN**H	AJH162LN**H
Unit 2								AJH090LN**H	AJH072LN**H	AJH090LN**H	AJH090LN**H	AJH090LN**H	AJH126LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H	AJH090LN**H	AJH126LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H	AJH162LN**H
Unit 3																	AJH090LN**H	AJH090LN**H	AJH090LN**H	AJH090LN**H	AJH090LN**H	AJH144LN**H	AJH144LN**H	AJH144LN**H	AJH162LN**H
Maximum Connectable Indoor Unit		13	16	19	23	26	29	33	36	40	43	46	50	53	55	55	55	55	55	55	55	55	55	55	55
Indoor unit connectable capacity	Cooling kW	11.2-29.1	14-36.4	16.8-43.5	20-52	22.5-58.5	25-65	28-72.8	31.2-81.1	34-88.4	36.5-94.9	39-101.4	42.5-110.5	45-117	47.5-123.5	50-130	53-137.8	56.5-146.9	59-153.4	61.5-159.9	64-166.4	67.5-175.5	70-182	72.5-188.5	75-195
Power source		3 phase 4 wire, 400 V, 50Hz →															3 phase 4 wire, 400 V, 50Hz →									

T1 condition

		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Capacity	Cooling kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
	Heating kW	25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	131.5	150.0	150.0	150.0	150.0
	Cooling Btu/h	76400	95500	114300	136500	153500	170600	191000	212900	232000	249000	266100	290000	307000	324000	341200	361600	385500	402500	419600	436700	460500	477600	494700	511800
	Heating Btu/h	85300	107500	128000	153500	170600	170600	215000	238800	261000	278100	278100	324100	341200	341200	341200	385600	431600	448700	448700	448700	511800	511800	511800	511800
Input power	Cooling kW	5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
	Heating kW	5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
Current	Cooling A	9.2	12.0	15.0	17.7	20.7	26.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Heating A	9.2	12.2	14.6	18.2	21.5	21.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EER	Cooling W/W	4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.55	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
COP	Heating W/W	4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90	3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67
EER	Cooling Btu/h/W	14.7	13.1	12.8	12.5	11.8	10.3	13.1	13.2	12.7	12.3	11.2	12.1	11.8	11.0	10.3	11.6	12.3	12.1	11.4	10.8	11.8	11.2	10.7	10.3
COP	Heating Btu/h/W	16.5	14.8	14.8	13.7	12.5	12.5	14.8	14.6	14.2	13.3	13.3	13.1	12.5	12.5	12.5	13.7	13.5	13.0	13.0	13.0	12.5	12.5	12.5	12.5

T3 condition (Cooling)

		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Capacity	kW	20.2	25.2	28.5	32	35.1	35.2	50.4	52.2	57.2	60.3	60.4	67.1	70.2	70.3	70.4	85.6	92.3	95.4	95.5	95.6	105.3	105.4	105.5	105.6
	Btu/h	68900	86000	97200	109200	119800	120100	172000	178100	195200	205800	206100	229000	239600	239900	240200	292100	315000	325600	325900	326200	359400	359700	360000	360300
Input power	kW	6.73	9.20	9.34	10.70	11.82	12.35	18.39	17.44	19.90	21.02	21.55	22.52	23.64	24.17	24.70	30.75	31.72	32.83	33.37	33.90	35.45	35.99	36.52	37.05
Current	A	10.8	14.5	14.7	16.9	18.6	19.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	3.00	2.74	3.05	2.99	2.97	2.85	2.74	2.99	2.87	2.87	2.80	2.98	2.97	2.91	2.85	2.78	2.91	2.91	2.86	2.82	2.97	2.93	2.89	2.85
EER	Btu/h/W	10.23	9.35	10.40	10.20	10.14	9.72	9.35	10.21	9.81	9.79	9.56	10.17	10.14	9.93	9.72	9.50	9.93	9.92	9.77	9.62	10.14	10.00	9.86	9.72

General

		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
Power factor	%	90	92	92	92	92	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate	High m³/h	11100	11100	13000	13000	13700	13700	11100×2	13000+11100	13000+11100	13700+11100	13700+11100	13700+13000	13700×2	13700×2	13700×2	13700+11100×2	13700+13000+11100	13700×2+11100	13700×2+11100	13700×2+11100	13700×3	13700×3	13700×3	13700×3
Sound pressure level	Cooling dB(A)	56	58	57	60	62	63	61	61	62	63	64	64	65	66	66	65	65	66	66	67	67	67	67	68
	Heating dB(A)	58	59	60	62	64	64	62	63	64	65	65	66	67	67	67	66	67	68	68	68	69	69	69	69
Maximum external static pressure	Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output	kW	7.5	7.5	11	11	11	11	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchanger fin		Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions	Height mm	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690	1690
	Width mm	930	930	1240	1240	1240	1240	930×2	1240+930	1240+930	1240+930	1240+930	1240×2	1240×2	1240×2	1240×2	1240×930×2	1240×2+930	1240×2+930	1240×2+930	1240×3	1240×3	1240×3	1240×3
	Depth mm	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight	kg	255	255	279	279	279	279	255×2	279+255	279+255	279+255	279+255	279×2	279×2	279×2	279×2	279×255×2	279×2+255	279×2+255	279×2+255	279×3	279×3	279×3	279×3
Refrigerant	Type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge kg	11.8	11.7	11.8	11.8	11.8	11.8	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3	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	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Discharge Gas mm	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operating range	Cooling °CDB	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
	Heating °CDB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Energy Efficiency Combination

	HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
Rating Capacity range	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		AJH144LN**HH	AJH162LN**HH	AJH180LN**HH	AJH216LN**HH	AJH234LN**HH	AJH252LN**HH	AJH270LN**HH	AJH288LN**HH	AJH306LN**HH	AJH324LN**HH	AJH342LN**HH	AJH360LN**HH	AJH378LN**HH	AJH396LN**HH	AJH414LN**HH
Unit 1		AJH072LN**H	AJH090LN**H	AJH108LN**H	AJH072LN**H	AJH090LN**H	AJH108LN**H	AJH126LN**H	AJH108LN**H	AJH108LN**H	AJH126LN**H	AJH126LN**H	AJH126LN**H	AJH126LN**H	AJH144LN**H	AJH144LN**H
Unit 2		AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH108LN**H	AJH108LN**H	AJH108LN**H	AJH108LN**H	AJH126LN**H	AJH126LN**H	AJH126LN**H	AJH144LN**H
Unit 3					AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH072LN**H	AJH108LN**H	AJH108LN**H	AJH108LN**H	AJH108LN**H	AJH126LN**H	AJH126LN**H	AJH144LN**H
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	25.2-65.5	28-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2	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 4 wire, 400 V, 50Hz →								3 phase 4 wire, 400 V, 50Hz →						

T1 condition

		16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
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	125.0	130.0
	Heating kW	50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0
	Cooling Btu/h	152800	171900	190700	229200	248300	267100	289300	305000	327200	342900	365100	387300	409500	426500	443500
	Heating Btu/h	170600	192800	213300	255900	278100	298600	324100	341300	366800	384000	409500	435000	460500	477600	494700
Input power	Cooling kW	10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98
	Heating kW	10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43
Current	Cooling A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Heating A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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 W/W	4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77
EER	Cooling Btu/h/W	14.7	13.8	13.5	14.7	14.0	13.8	13.5	13.2	13.0	12.8	12.6	12.5	12.5	12.2	12.0
COP	Heating Btu/h/W	16.5	15.5	15.4	16.5	15.8	15.7	15.1	15.2	14.7	14.8	14.4	14.0	13.7	13.3	12.9

T3 condition (Cooling)

		16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
Capacity	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	137800	154900	166100	206700	223800	235000	247000	263300	275300	291600	303600	315600	327600	338200	348800
Input power	kW	13.47	15.93	16.08	20.20	22.66	22.81	24.17	25.42	26.78	28.03	29.39	30.75	32.11	33.22	34.34
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
EER	Btu/h/W	10.23	9.72	10.33	10.23	9.87	10.30	10.22	10.36	10.28	10.40	10.33	10.26	10.20	10.18	10.16

General

		16	18	20	24	26	28	30	32	34	36	38	40	42	44	46
Power factor	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air flow rate	High m³/h	11100×2	11100×2	13000+11100	11100×3	11100×3	13000+11100×2	13000+11100×2	13000×2+11100	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	63	63	61	62	63	63	64	65	66	66
	Heating dB(A)	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 mm	1240×2	1240×2	1240+930	930×3	930×3	1240+930×2	1240×930×2	1240×2+930	1240×2+930	1240×3	1240×3	1240×3	1240×3	1240×3	1240×3
	Depth mm	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight	kg	279×2	279×2	279+255×2	255×3	255×3	279×255×2	279×255×2	279×2+255	279×2+255	279×3	279×3	279×3	279×3	279×3	279×3
Refrigerant	Type	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 mm	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27
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 °CDB	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

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.

AJH__LN**H(H) : AJH__LNTDH(H), AJH__LNLCH(H)

AIRSTAGE™ INDOOR UNITS

14 Type and 124 models available to meet the requirements of any building design.

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

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

INDOOR UNITS LINE-UP

Compact Cassette

4-way Flow Cassette

Circular Flow Cassette

Mini Duct

Slim Duct / Slim Concealed Floor

Medium Static Pressure Duct

High Static Pressure Duct

Large Airflow Duct

Floor / Ceiling

Ceiling

Wall Mounted (EEV Internal / external)

INDOOR UNITS LINE-UP

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs.
14 types, 124 models, Capacity range from 7,000 Btu/h to 96,000 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		AUXB07GALH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	AUXB24GALH AUXB24GATH									
	4-way Flow (Slim type)						AUXD18GALH	AUXD24GALH									
	4-way Flow (Large type)						AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH				
	Circular Flow (Slim type)						AUXM018GTAH	AUXM024GTAH									
	Circular Flow (Large type)						AUXK018GTAH	AUXK024GTAH	AUXK030GTAH	AUXK034GTAH	AUXK036GTAH	AUXK045GTAH	AUXK054GTAH				
Duct	Mini Duct (With drain pump)		ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH									
	Mini Duct (Without drain pump)		ARXK07GALH	ARXK09GALH	ARXK12GALH	ARXK14GALH	ARXK18GALH	ARXK24GALH									
	Slim Duct (With drain pump)		ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH									
	Medium Static Pressure Duct							ARXA24GBLH ARXA24GBTH	ARXA30GBLH ARXA30GBTH		ARXA36GBLH ARXA36GBTH	ARXA45GBLH ARXA45GBTH					
	High Static Pressure Duct										ARXC36GBTH				ARXC72GBTH*[1]	ARXC90GBTH*[1]	ARXC96GATH*[1]
	High Static Pressure Duct											ARXC45GATH		ARXC60GATH*[1]	ARXC72GATH*[1]	ARXC90GATH*[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)		ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH									
Ceiling	Ceiling				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH	ABHA30GATH		ABHA36GATH	ABHA45GATH	ABHA54GATH				
Wall Mounted	Wall Mounted		ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHA18GACH ASHA18GATH	ASHA24GACH ASHA24GATH	ASHA30GACH ASHA30GATH								
	Wall Mounted (EEV external)		ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH	With this model, connection of EV kit is necessary.										

*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

Models

AUXB07GALH
AUXB09GALH
AUXB12GALH
AUXB14GALH
AUXB18GALH
AUXB24GALH

AUXB09GATH
AUXB12GATH
AUXB14GATH
AUXB18GATH
AUXB24GATH

DC FAN

Feature

2-stage turbo fan

High efficiency design by 2 stage structure

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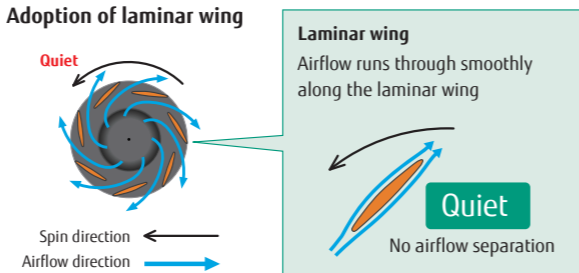
1-stage + 2-stage = 2-stage turbo fan

Heat exchange efficiency **20 %UP**

Wind velocity Fast / Slow
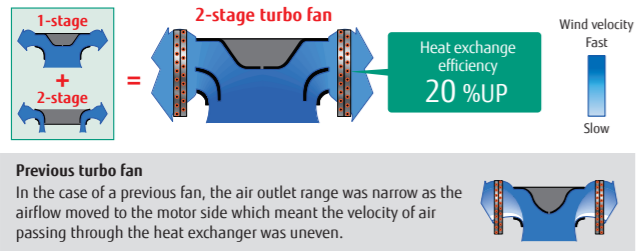
Previous turbo fan
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.
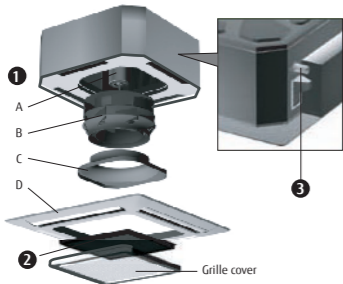
Quiet quality

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

Adoption of laminar wing

Quiet

Laminar wing
Airflow runs through smoothly along the laminar wing

Spin direction
Airflow direction

Quiet
No airflow separation

Improvement of the airflow distribution

❶
A
B
C
D
❷ Grille cover
❸

❶ 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

❷ Air filter : standard equipment

❸ 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).

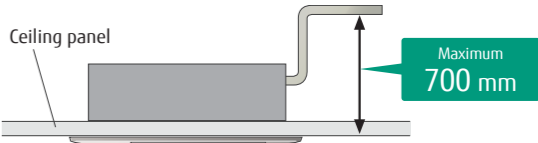| Model code	The maximum height from floor to ceiling (m)	
	Standard mode	High ceiling mode
07	2.7	–
09	2.7	–
12	2.7	3.0
14	2.7	3.0
18	2.7	3.0
24	2.7	3.0

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)

570mm
570mm

High lift drain pump

Ceiling panel

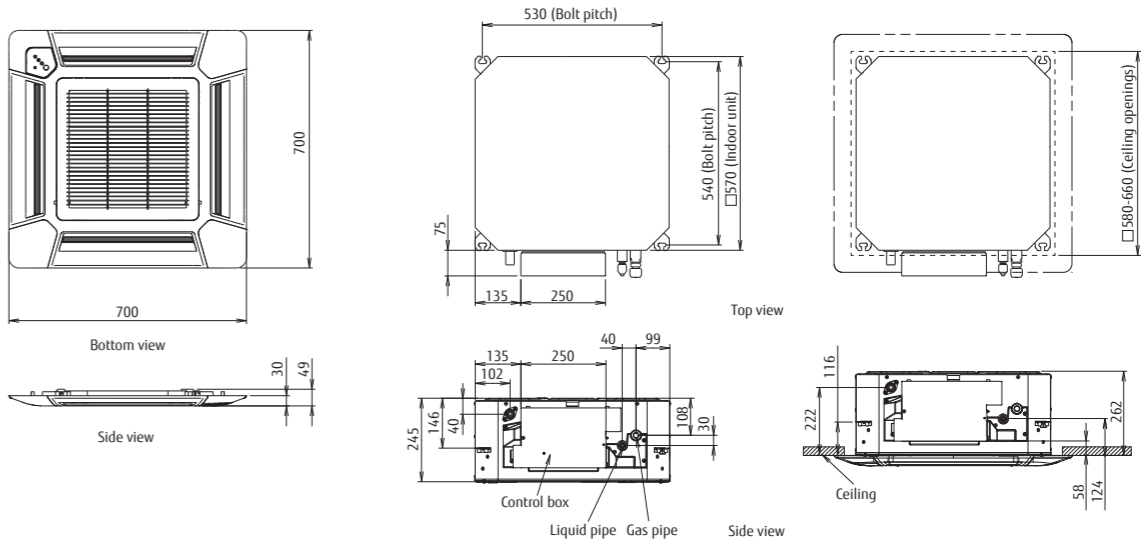Maximum **700 mm**

Optional parts

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

Specifications

Model name			AUXB07GALH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	AUXB24GALH AUXB24GATH
Power source			Single phase, 220-240V, 50Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		2.8	3.2	4.1	5.0	6.3	8.0
Input power		W	25	25	29	35	36	84
Airflow rate	High	m³/h (l/s)	540 (150)	550 (153)	600 (167)	680 (189)	710 (197)	1,030 (286)
	Med		450 (125)	450 (125)	530 (147)	590 (164)	580 (161)	830 (231)
	Low		350 (97)	350 (97)	390 (108)	390 (108)	400 (111)	450 (125)
Sound pressure level	High	dB (A)	34	35	37	38	41	50
	Med		30	30	34	34	35	44
	Low		25	25	27	27	27	30
Dimensions (H × W × D)		mm	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570
Weight		kg(lbs)	15 (33)	15 (33)	15 (33)	15 (33)	17 (37)	17 (37)
Connection 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					
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].

Dimensions (Unit: mm)

700
700
75
135 250
Bottom view
Side view
30
49

530 (Bolt pitch)
540 (Bolt pitch)
□570 (Indoor unit)
135 250
Top view

135 250 40 99
102
245
146
40
108
30
Control box
Liquid pipe Gas pipe
Side view

□580-660 (Ceiling openings)
116
222
Ceiling
262
58
124

4-way Flow Cassette (Slim type)

Models
AUXD18GALH
AUXD24GALH

DC FAN

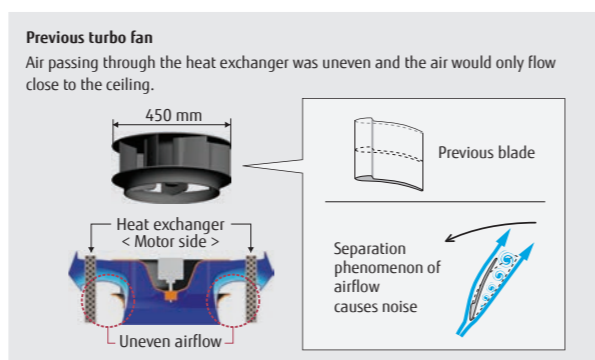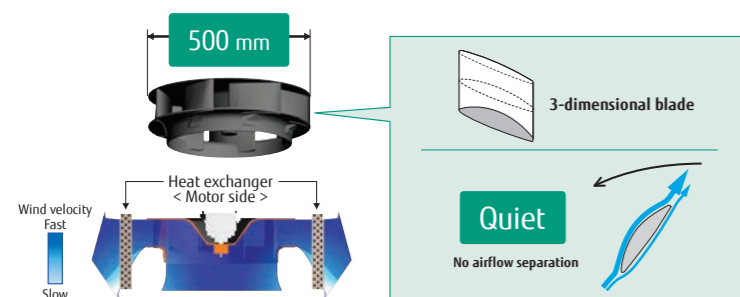## Feature

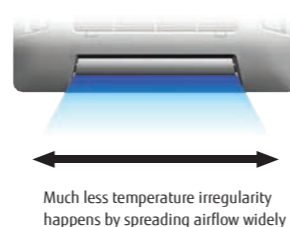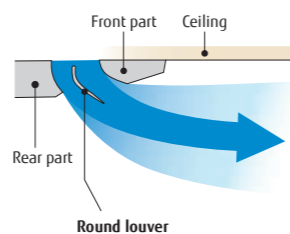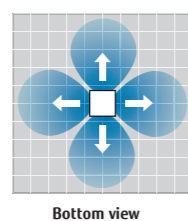### High efficiency turbo fan with 3-dimensional blade

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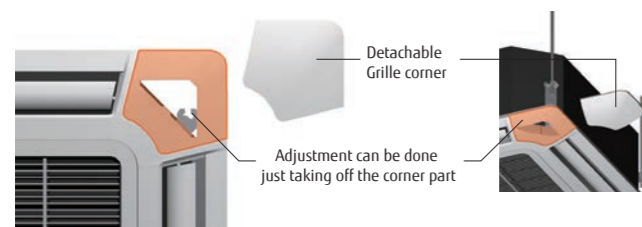
500 mm

3-dimensional blade

Quiet

No airflow separation

Heat exchanger
< Motor side >

Wind velocity
Fast
Slow

Previous turbo fan
Air passing through the heat exchanger was uneven and the air would only flow close to the ceiling.

450 mm

Previous blade

Heat exchanger
< Motor side >

Separation phenomenon of airflow causes noise

Uneven airflow

← : Spin direction   → : Airflow direction   ✶✶⑤ : Turbulent flow noise

Improvement of the airflow distribution

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

Bottom view

Front part   Ceiling

Rear part

Round louver

Much less temperature irregularity happens by spreading airflow widely

Adjustment of hanger position is possible after installation

Detachable Grille corner
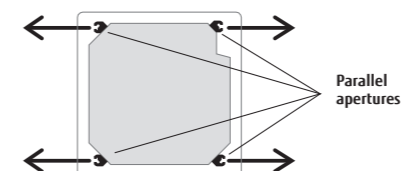
Adjustment can be done just taking off the corner part

High ceiling mode

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

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

One way installation
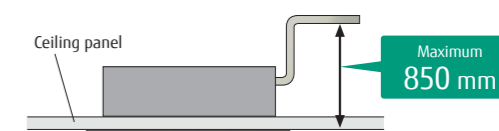
Parallel apertures

High lift drain pump

Ceiling panel

Maximum 850 mm

Optional parts

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

Specifications

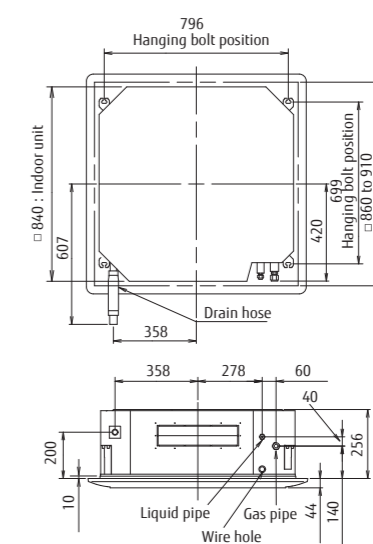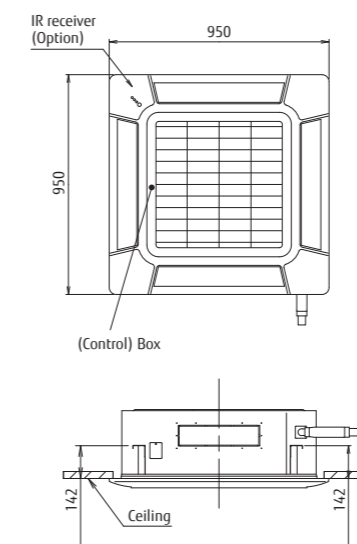| Model name			AUXD18GALH	AUXD24GALH
Power source			Single phase, 220-240V, 50Hz	
Capacity	Cooling	kW	5.6	7.1
	Heating		6.3	8.0
Input power		W	39	46
Airflow rate	High	m3/h (l/s)	1,150 (319)	1,280 (356)
	Med		940 (261)	1,040 (289)
	Low		870 (242)	870 (242)
Sound pressure level	High	dB (A)	36	38
	Med	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

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

Dimensions (Unit : mm)

IR receiver (Option)

950

950

(Control) Box

142   Ceiling   142

796
Hanging bolt position

□ 840 : Indoor unit

607

420

Ø90 Hanging bolt position
□ 860 to 910 Ceiling opening

Drain hose

358

358   278   60
40

200

10

256
140
44

Liquid pipe   Gas pipe
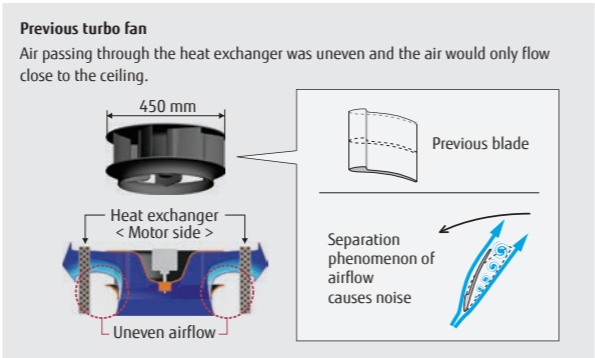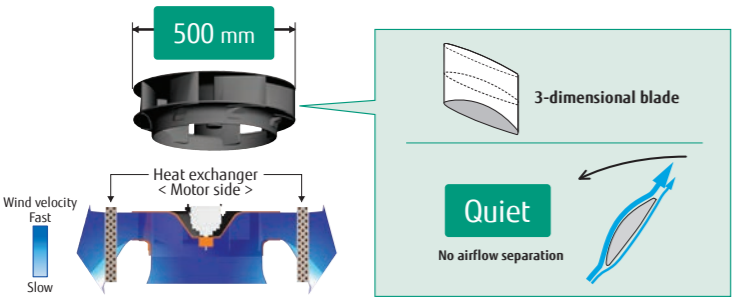Wire hole

4-way Flow Cassette (Large type)

Models
AUXA18GALH
AUXA24GALH
AUXA30GALH
AUXA34GALH
AUXA36GALH
AUXA45GALH
AUXA54GALH

DC FAN

Feature

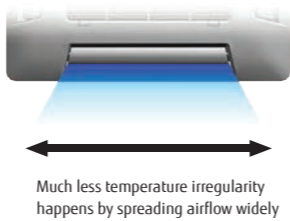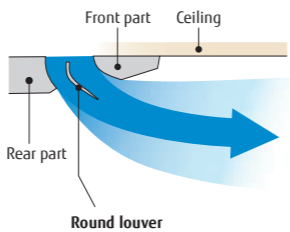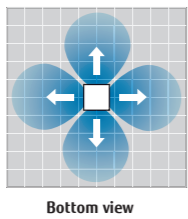### High efficiency turbo fan with 3-dimensional blade

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

500 mm

3-dimensional blade

Quiet

No airflow separation

Wind velocity
Fast
Heat exchanger
< Motor side >
Slow

Previous turbo fan
Air passing through the heat exchanger was uneven and the air would only flow close to the ceiling.

450 mm

Previous blade

Heat exchanger
< Motor side >

Separation phenomenon of airflow causes noise

Uneven airflow

◄─── : Spin direction   ───► : Airflow direction   ·✦·✦·Ⓢ : Turbulent flow noise

Improvement of the airflow distribution

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

Bottom view

Front part   Ceiling

Rear part

Round louver

Much less temperature irregularity happens by spreading airflow widely

Adjustment of hanger position is possible after installation

Detachable Grille corner
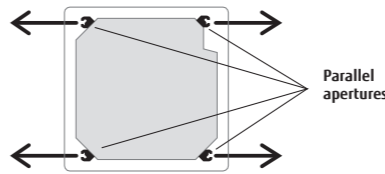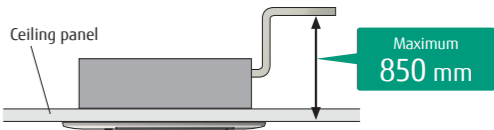
Adjustment can be done just taking off the corner part
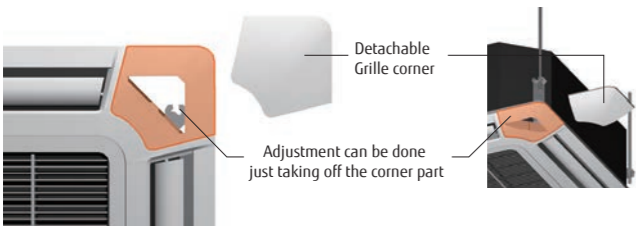
High ceiling mode

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

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

One way installation

Parallel apertures

High lift drain pump

Ceiling panel

Maximum **850 mm**

Optional parts

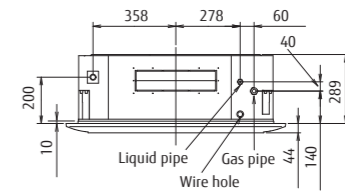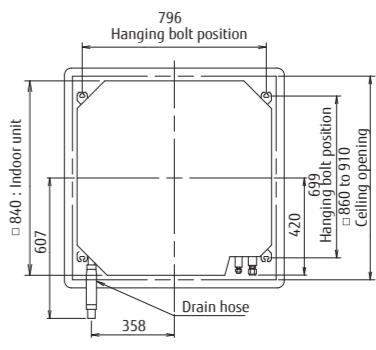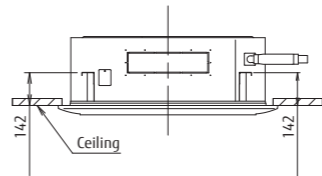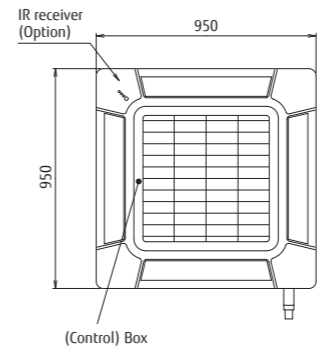|	
IR Receiver Unit :	UTY-LRHGB1
Air Outlet Shutter Plate :	UTR-YDZK
Panel Spacer :	UTG-BKXA-W
Insulation Kit for High Humidity :	UTZ-KXRA
Wide Panel :	UTG-AKXA-W

Specifications

Model name			AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH
Power source			Single phase, 220-240V, 50Hz						
Capacity	Cooling	kW	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating		6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	51	51	59	77	80	99	119
Airflow rate	High	m³/h (l/s)	1,420 (394)	1,420 (394)	1,600 (444)	1,750 (486)	1,800 (500)	1,900 (528)	2,000 (556)
	Med		1,230 (342)	1,230 (342)	1,300 (361)	1,300 (361)	1,300 (361)	1,370 (381)	1,370 (381)
	Low		1,100/1,000*¹ (306/278)	1,100/1,000*¹ (306/278)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)
Sound pressure level	High	dB (A)	40	40	40	43	44	46	47
	Med		36	36	38	38	38	39	39
	Low		33/31*¹	33/31*¹	33	33	33	33	33
Dimensions (H × W × D)		mm	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840
Weight		kg(lbs)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)
Connection pipe diameter	Liquid (Flare)	mm	9.52	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	19.05
Drain hose diameter (I.D./O.D.)			25 / 32						
Cassette Grille	Model name		UTG-UGGA-W						
	Dimensions (H+W+D)	mm	50 × 950 × 950						
	Weight	kg(lbs)	5.5 (12)						

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

Dimensions (Unit : mm)

IR receiver (Option)   950

950

(Control) Box

796 Hanging bolt position

□ 840 : Indoor unit

607

420

690 □ bolt position Hanging bolt position 860 to 910 Ceiling opening

Drain hose

358

358   278   60

40

200

10

289

140

44

Liquid pipe   Gas pipe

Wire hole

142   Ceiling   142

Circular Flow Cassette

Models (Slim type)
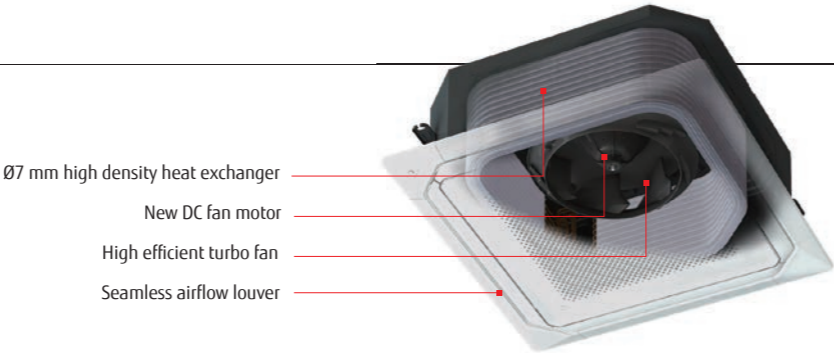AUXM018GTAH
AUXM024GTAH

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

DC FAN

Feature

Unique Circular Flow design

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

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

### Uniform temperature air conditioning

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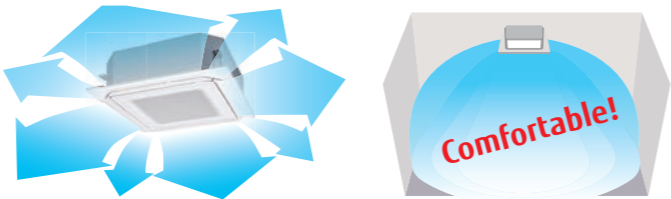
Comfortable!

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-RNRGZ3) only
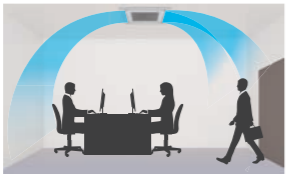
Comfortable air conditioning by preventing direct blowing of cold air and by providing swinging air flow simultaneously.
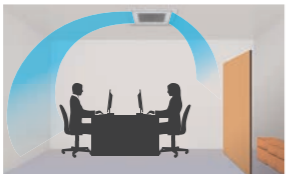
Efficient air conditioning based on the room layout

Human sensor increases more energy saving

Energy saving operation starts automatically by detecting the motion of a person. 2 modes of save operation mode and stop mode can be selected.
*Touch Panel Wired RC (UTY-RNRGZ3) only

Human sensor (Option)

2 modes can be selected

Auto saving
Power is saved while people are away.

Auto OFF
Operation stops after people go out.

Optional parts

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

Specifications

Model name			AUXM018 GTAH	AUXM024 GTAH	AUXK018 GTAH	AUXK024 GTAH	AUXK030 GTAH	AUXK034 GTAH	AUXK036 GTAH	AUXK045 GTAH	AUXK054 GTAH
Power source			Single phase, 220-240V, 50Hz								
Capacity	Cooling	kW	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating		6.3	8.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	20	25	40	40	47	47	61	89	116
Airflow rate	High	m³/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)
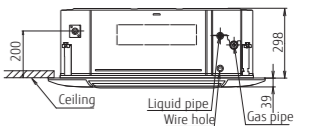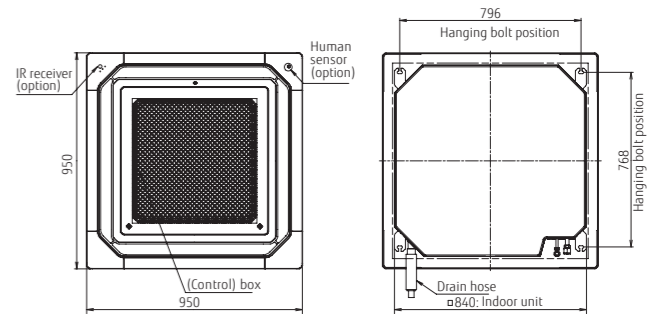When AUXK036GTAH is connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø19.05.

Dimensions (Unit: mm)
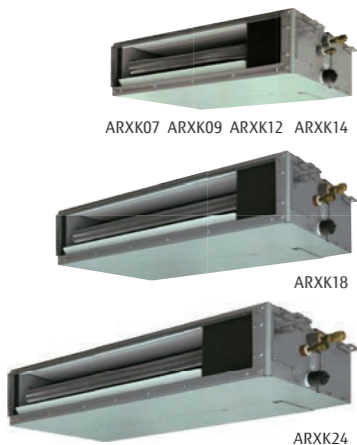
Models: AUXM018 / AUXM024
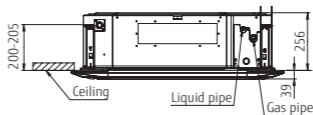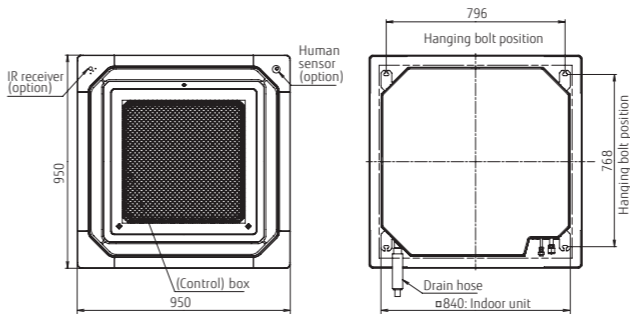
Models: AUXK018 / AUXK024 / AUXK030 / AUXK034 AUXK036 / AUXK045 / AUXK054

Mini Duct

DC FAN

Models (With drain pump)
ARXK07GCLH
ARXK09GCLH
ARXK12GCLH
ARXK14GCLH
ARXK18GCLH
ARXK24GCLH

ARXK07 ARXK09 ARXK12 ARXK14

ARXK18

ARXK24

Models (Without drain pump)
ARXK07GALH
ARXK09GALH
ARXK12GALH
ARXK14GALH
ARXK18GALH
ARXK24GALH
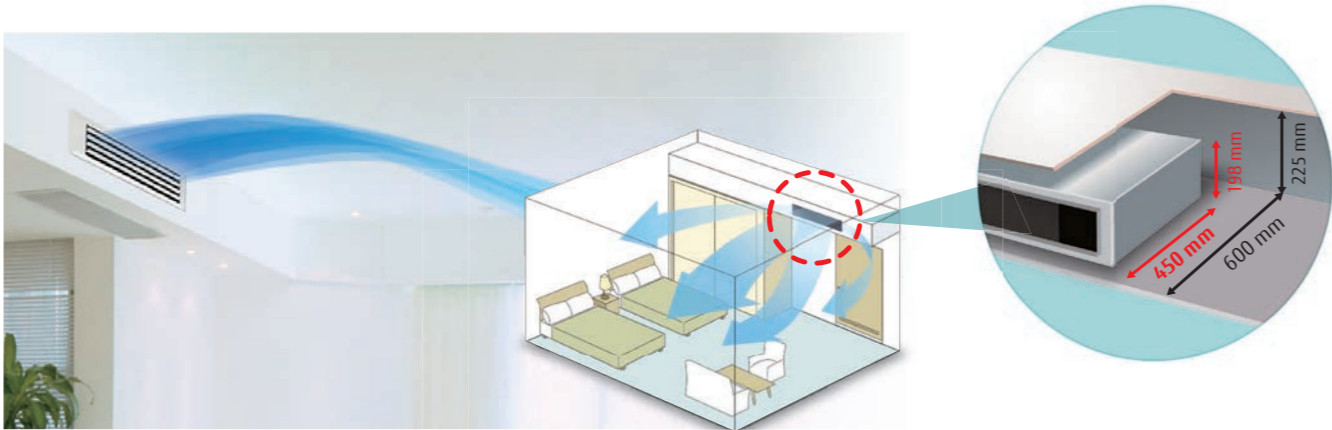
ARXK07 ARXK09 ARXK12 ARXK14

ARXK18

ARXK24

Feature

Optimum design in harmony with interior decoration

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

198 mm
225 mm
450 mm
600 mm

Advanced performance by new shaped heat exchanger and airflow

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

Fan casing
V shaped heat exchanger
Optimum airflow path
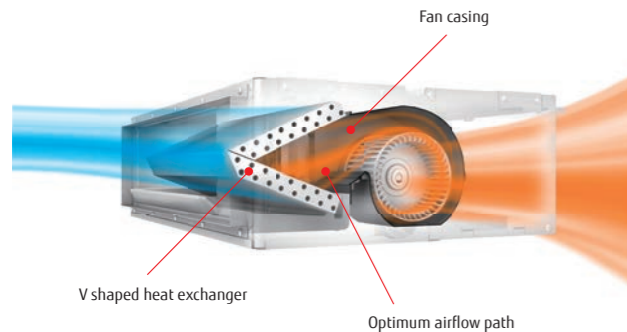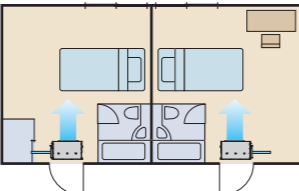
Easy drain design even at narrow ceiling

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

Models with drain pump

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

Models without drain pump

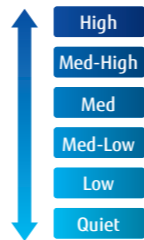For models without drain pump, both sides drainage is possible and drain design is easy.

6-speed control*

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

Low noise 21 dB(A) at 07/09 models

6-Step Speed
High
Med-High
Med
Med-Low
Low
Quiet

* Compatible Remote Controller is as follows:
UTY-RNRGZ3 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGGZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Optional parts

Remote Sensor Unit : UTY-XSZX
IR Receiver Unit : UTB-YWC
Auto Louver Grille Kit : UTD-GXTA-W (for ARXK07/09/12/14GCLH
ARXK07/09/12/14GALH)
UTD-GXTB-W (for ARXK18GCLH, ARXK18GALH)
UTD-GXTC-W (for ARXK24GCLH, ARXK24GALH)

Specifications

Model name			ARXK07GCLH ARXK07GALH	ARXK09GCLH ARXK09GALH	ARXK12GCLH ARXK12GALH	ARXK14GCLH ARXK14GALH	ARXK18GCLH ARXK18GALH	ARXK24GCLH ARXK24GALH
Power source			Single phase, 220-240V, 50Hz					
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		2.8	3.2	4.0	5.0	6.3	8.0
Input power	GCLH / GALH	W	28 / 21	28 / 21	35 / 28	66 / 59	73 / 66	80 / 73
Airflow rate	High	m³/h (l/s)	460 (128)	460 (128)	550 (153)	760 (211)	930 (258)	1,160 (322)
	Med-High		440 (122)	440 (122)	520 (144)	660 (183)	840 (233)	1,060 (294)
	Med		420 (117)	420 (117)	480 (133)	560 (156)	740 (206)	960 (267)
	Med-Low		400 (111)	400 (111)	450 (125)	490 (136)	640 (178)	860 (239)
	Low		370 (103)	370 (103)	410 (114)	410 (114)	540 (150)	750 (208)
	Quiet		340 (94)	340 (94)	340 (94)	340 (94)	470 (131)	610 (169)
Static pressure range		Pa	0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50
Standard static pressure			10	10	10	15	15	15
Sound pressure level	High	dB (A)	26	26	29	34	33	32
	Med-High		25	25	27	31	30	30
	Med		24	24	26	28	28	28
	Med-Low		23	23	25	26	26	27
	Low		22	22	24	24	24	25
	Quiet		21	21	22	22	22	22
Dimensions (H × W × D)		mm	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 900 × 450	198 × 1,100 × 450
Weight	GCLH / GALH	kg(lbs)	15.5 (34) / 15 (33)	15.5 (34) / 15 (33)	16 (35) / 15.5 (34)	16 (35) / 15.5 (34)	19 (42) / 18.5 (41)	22.5 (50) / 22 (49)
Connection 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].

Dimensions (Unit: mm)

Models: ARXK07GCLH / ARXK09GCLH / ARXK12GCLH / ARXK14GCLH / ARXK18GCLH / ARXK24GCLH
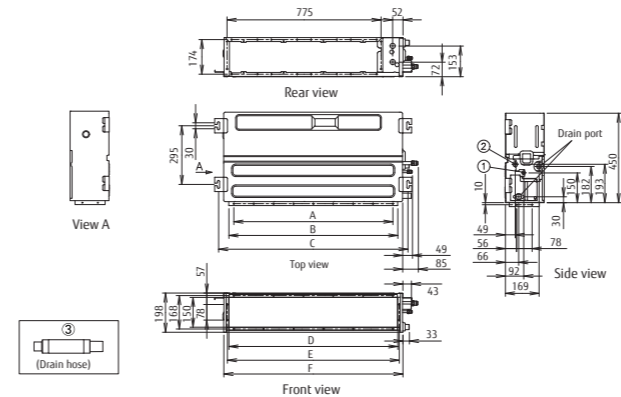
775
Rear view
View A
Top view
Side view
Front view
Drain port
(Drain hose)

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

	ARXK07-14GCLH	ARXK18GCLH	ARXK24GCLH
A	P100+6=600	P100+8=800	P100+10=1,000
B	650	850	1,050
C	752	952	1,152
D	650	850	1,050
E	665	864	1,064
F	700	900	1,100

Models: ARXK07GALH / ARXK09GALH / ARXK12GALH / ARXK14GALH / ARXK18GALH / ARXK24GALH
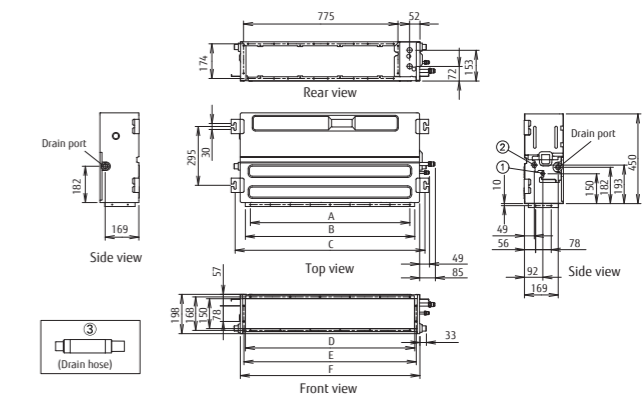
775
Rear view
Drain port
Side view
Top view
Side view
Front view
(Drain hose)

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

	ARXK07-14GALH	ARXK18GALH	ARXK24GALH
A	P100+6=600	P100+8=800	P100+10=1,000
B	650	850	1,050
C	752	952	1,152
D	650	850	1,050
E	665	864	1,064
F	700	900	1,100

Slim Duct / Slim Concealed Floor

Models (With drain pump)

ARXD07GALH	ARXD07GATH
ARXD09GALH	ARXD09GATH
ARXD12GALH	ARXD12GATH
ARXD14GALH	ARXD14GATH
ARXD18GALH	ARXD18GATH
ARXD24GALH	ARXD24GATH

DC FAN

ARXD07 ARXD09 ARXD12 ARXD14

ARXD18

ARXD24

Slim Concealed Floor

Feature

Slim design

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

Drain port

Drain pump

Height
198 mm

Drain pump built-in
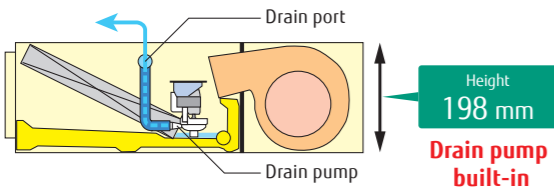
Air-intake

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

Bottom side   Back side
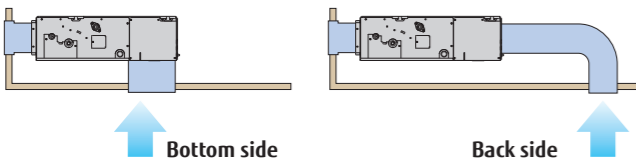
Flexible installation

Ceiling concealed
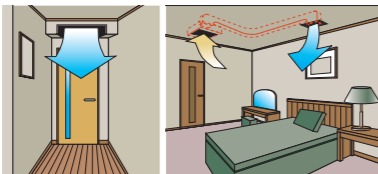
Floor concealed
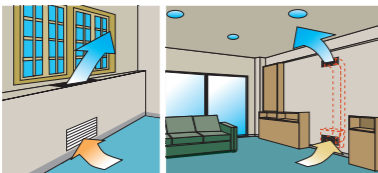
Selectable with a wide range of static pressure

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
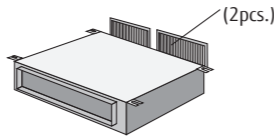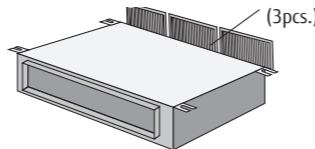**0 to 90 Pa**

*24 model is 0 to 50 Pa

High lift drain pump

Maximum
850 mm
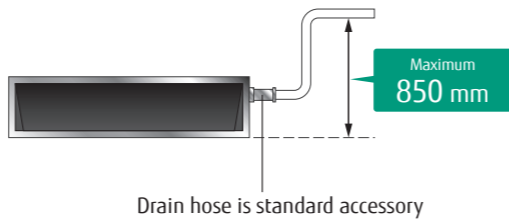
Drain hose is standard accessory

Filter (Accessory)
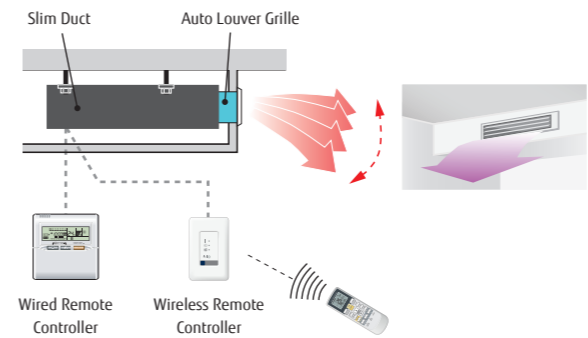
ARXD07 / 09 / 12 / 14 / 18   (2pcs.)

ARXD24   (3pcs.)

Auto Louver Grille Kit (Option)

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

Slim Duct   Auto Louver Grille

Wired Remote Controller   Wireless Remote Controller

Optional parts

Remote Sensor Unit :   UTY-XSZX
IR Receiver Unit :   UTB-YWC
Auto Louver Grille Kit : UTD-GXTA-W (for ARXD07/09/12/14GALH
          ARXD07/09/12/14GATH)
    UTD-GXTB-W (for ARXD18GALH, ARXD18GATH)
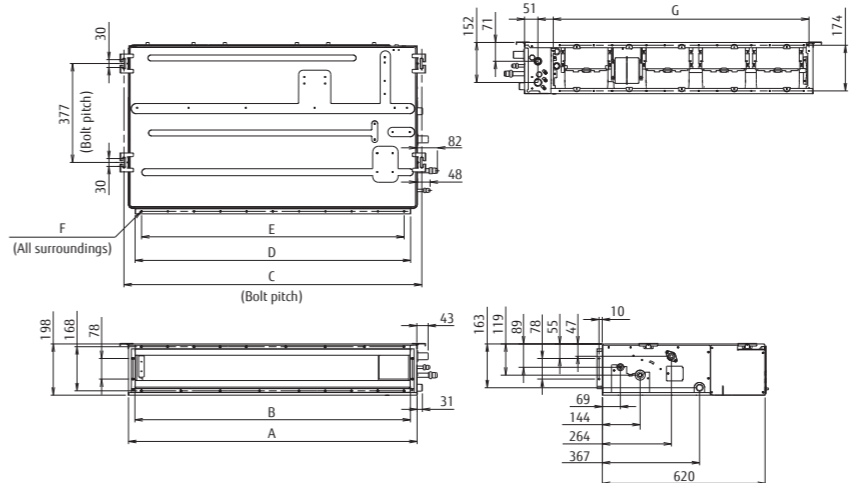   UTD-GXTC-W (for ARXD24GALH, ARXD24GATH)

Specifications

Model name			ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH
Power source			Single phase, 220-240V, 50Hz					
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	m³/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].

Dimensions (Unit: mm)

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

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

Medium Static Pressure Duct

Models

ARXA24GBLH   ARXA24GBTH
ARXA30GBLH   ARXA30GBTH
ARXA36GBLH   ARXA36GBTH
ARXA45GBLH   ARXA45GBTH

DC FAN

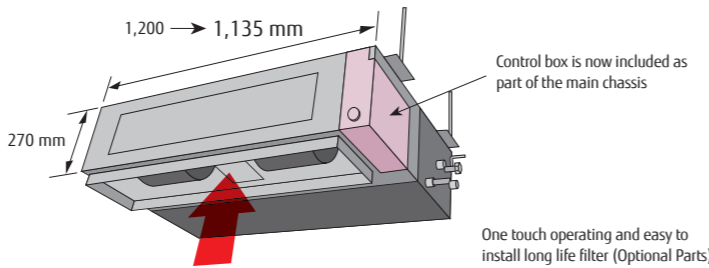## Feature

Slim & Compact design

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

1,200 → 1,135 mm
270 mm

Control box is now included as part of the main chassis

One touch operating and easy to install long life filter (Optional Parts)

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

Can be installed for various location

It can be installed in such locations as high-rise condominiums by low static pressure design.
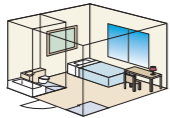
It can also be installed in wide spade when high static pressure is required, such as for offices.

Easy maintenance

See below for the case of rear suction type

Previous model

Large bottom panel: 1 piece

↓

New model

1.Control box
2.Fan casing
3.Fan
4.Motor
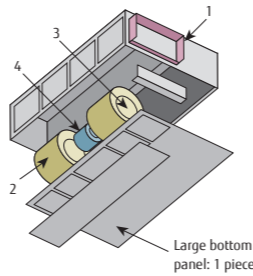
Bottom panel: 2 pieces

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.

Easy setting by using remote controller

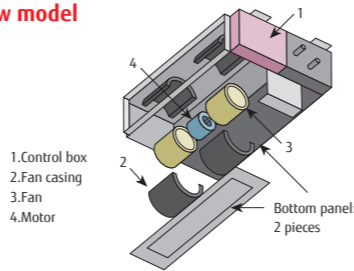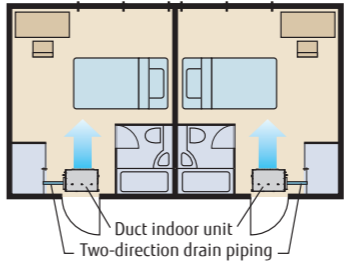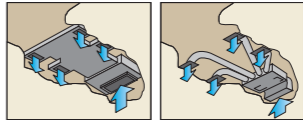The change of static pressure range is possible by remote controller

Two-direction drain piping

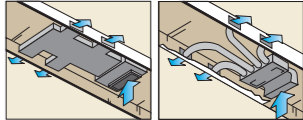Duct indoor unit
Two-direction drain piping

Installation styles

Embedded in Ceiling

Hanging from Ceiling

Optional parts

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

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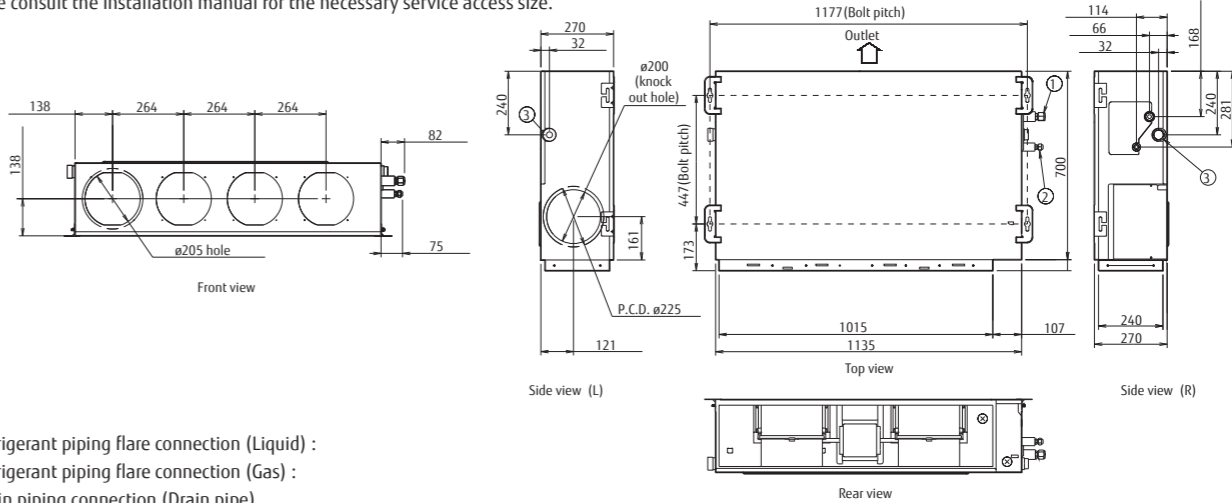IR Receiver Unit : UTB-YWC
Drain Pump Unit : UTZ-PX1NBA

Specifications

Model name			ARXA24GBLH ARXA24GBTH	ARXA30GBLH ARXA30GBTH	ARXA36GBLH ARXA36GBTH	ARXA45GBLH ARXA45GBTH
Power source			Single phase, 220-240V, 50Hz			
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	m³/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	0 to 150	0 to 150	0 to 150	0 to 150
Standard static pressure			40	50	50	60
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].

Dimensions (Unit: mm)

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

Front view

Side view (L)

Top view

Side view (R)

Rear view

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

High Static Pressure Duct
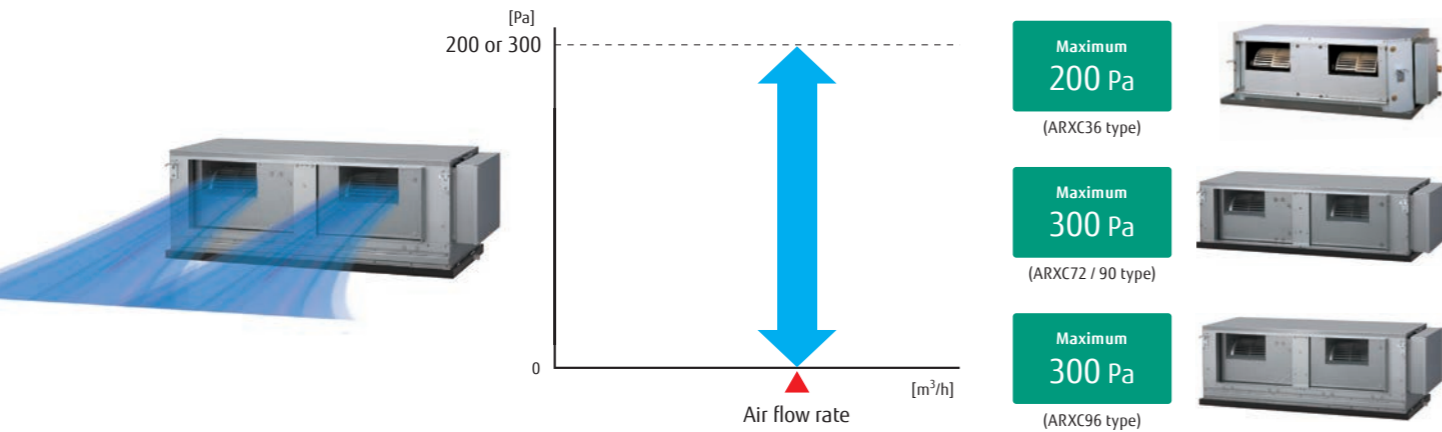
Models
ARXC36GBTH

Models
ARXC72GBTH
ARXC90GBTH
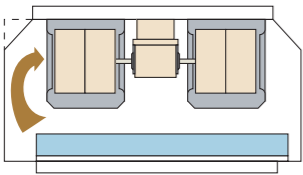
Models
ARXC96GATH

DC FAN

Feature

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).

[Pa]
200 or 300

0

Air flow rate

[m³/h]

Maximum 200 Pa
(ARXC36 type)

Maximum 300 Pa
(ARXC72 / 90 type)

Maximum 300 Pa
(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)

500mm
Heat exchanger
Plastic fan Ø 225mm
Casing (Plastic)
400mm
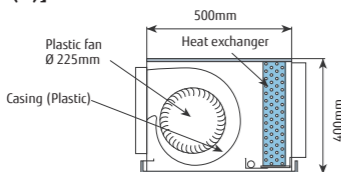
Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.
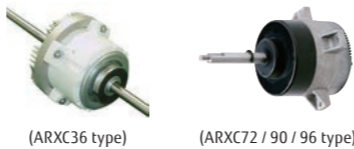
(ARXC36 type)   (ARXC72 / 90 / 96 type)

Easy installation (Compact size & Lightweight)

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

(Unit:mm)

400
1,050   500
(ARXC36 type)

450
1,587   700
(ARXC72 / 90 type)

550
1,587   700
(ARXC96 type)
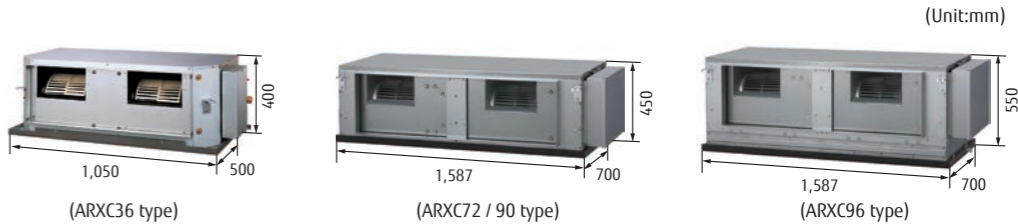
Optional parts

Long-Life Filter :	UTD-LF60KA (For ARXC36GBTH)
IR Receiver Unit :	UTB-YWC
Remote Sensor Unit :	UTY-XSZX

Specifications

Model name			ARXC36GBTH	ARXC72GBTH	ARXC90GBTH	ARXC96GATH
Power source			Single phase, 220-240V, 50Hz			
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	m³/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.
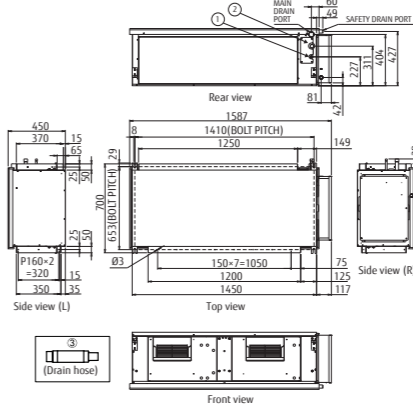Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

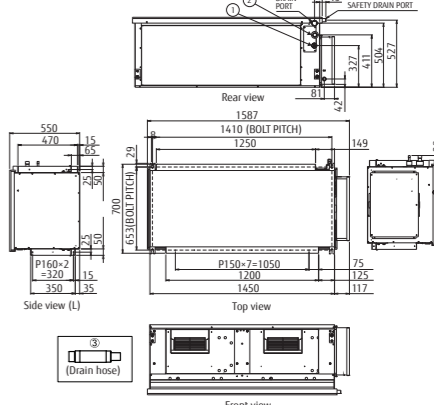## Dimensions (Unit: mm)

Models: ARXC36

Rear view
Side view (L)   Top view   Side view (R)
Front view

Models: ARXC72 / ARXC90

Rear view
Side view (L)   Top view   Side view (R)
(Drain hose)   Front view

Models: ARXC96

Rear view
Side view (L)   Top view
(Drain hose)   Front view

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

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

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

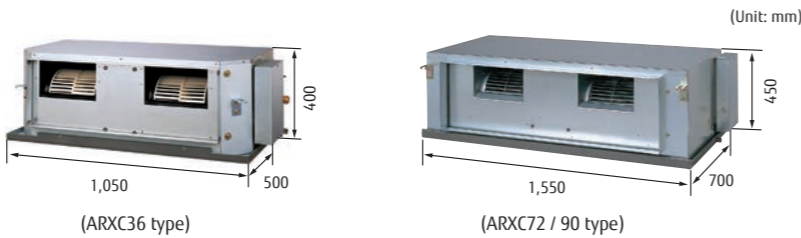# High Static Pressure Duct

Models
ARXC45GATH
ARXC60GATH

Models
ARXC72GATH
ARXC90GATH

AC
FAN

Feature

Easy installation
(Compact size & Lightweight)

A compact size and lightweight indoor unit has been developed by reducing the basic chassis and the overall material weight.
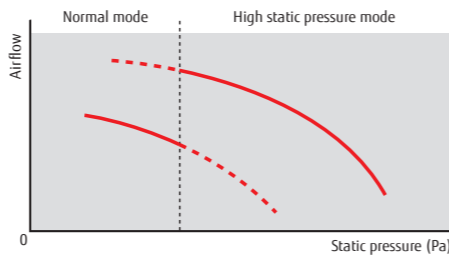
(Unit: mm)

400
1,050 500
(ARXC36 type)

450
1,550 700
(ARXC72 / 90 type)

Static pressure selection

Models : ARXC72 / ARXC90

2 Types of static pressure mode are selectable.

Maximum
300 Pa

High Static Pressure Duct (ARXC72)

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

Normal mode   High static pressure mode

Airflow

0   Static pressure (Pa)

Low noise

Models : ARXC45 / ARXC60

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

Previous model   **New model**
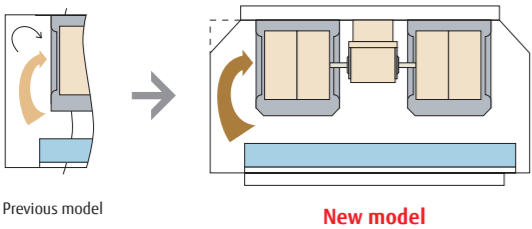
Installation styles
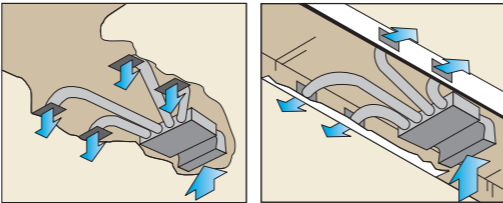
Optional parts

Long-Life Filter :   UTD-LF60KA (For ARXC45/60GATH)
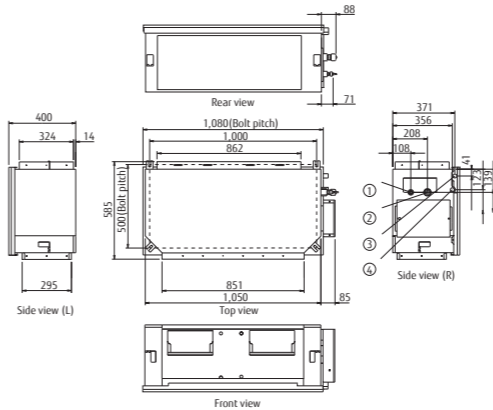IR Receiver Unit :   UTB-YWC
Remote Sensor Unit : UTY-XSZX

Specifications

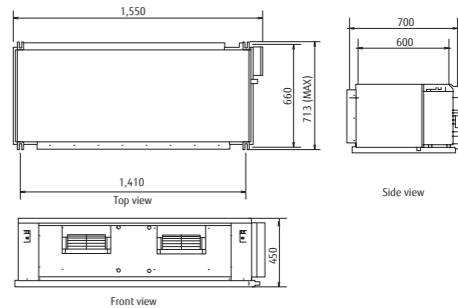| Model name			ARXC45GATH	ARXC60GATH	ARXC72GATH	ARXC90GATH
Power source			Single phase, 220-240V, 50Hz			
Capacity	Cooling	kW	12.5	18.0	22.4	25.0
	Heating		14.0	20.0	25.0	28.0
Input power		W	715	730	1,110	1,250
Airflow rate	High	m³/h (l/s)	3,500 (972)	3,500 (972)	3,900 (1,083)	4,300 (1,195)
	Med		3,000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

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

Dimensions (Unit: mm)

Models: ARXC45 / ARXC60

Rear view
400
324 14
1,080(Bolt pitch)
1,000
862
585
590(Bolt pitch)
295
851
1,050
Top view
Side view (L)
Front view
371
356
208
108
Side view (R)
85

Models: ARXC72 / ARXC90

1,550
700
600
660
711 (MAX)
1,410
Top view
Side view
450
Front view

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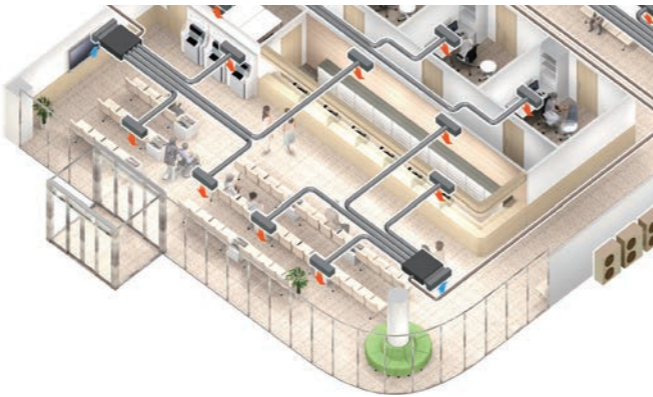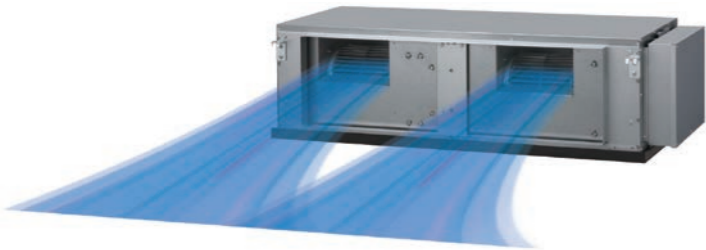③ Drain hose connection

Large Airflow Duct (Large type)

Models
ARXN18GATH
ARXN24GATH
ARXN30GATH
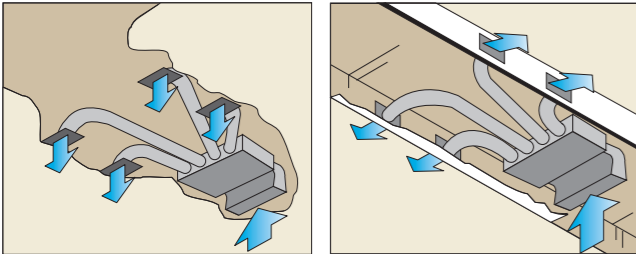ARXN34GATH
ARXN36GATH
ARXN45GATH

DC FAN

Feature

Large airflow volume

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

Installation styles

Selectable with a wide range of static pressure

static pressure range 50 to 250 Pa	static pressure range 50 to 300 Pa
(30 / 34class)	(36 / 45class)

Optional parts
Remote Sensor Unit : UTY-XSZX

Specifications

Model name			ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH
Power source					Single phase, 220-240V, 50Hz			
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	m³/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.

Dimensions (Unit: mm)

Rear view

Air Flow

Top view

Front view
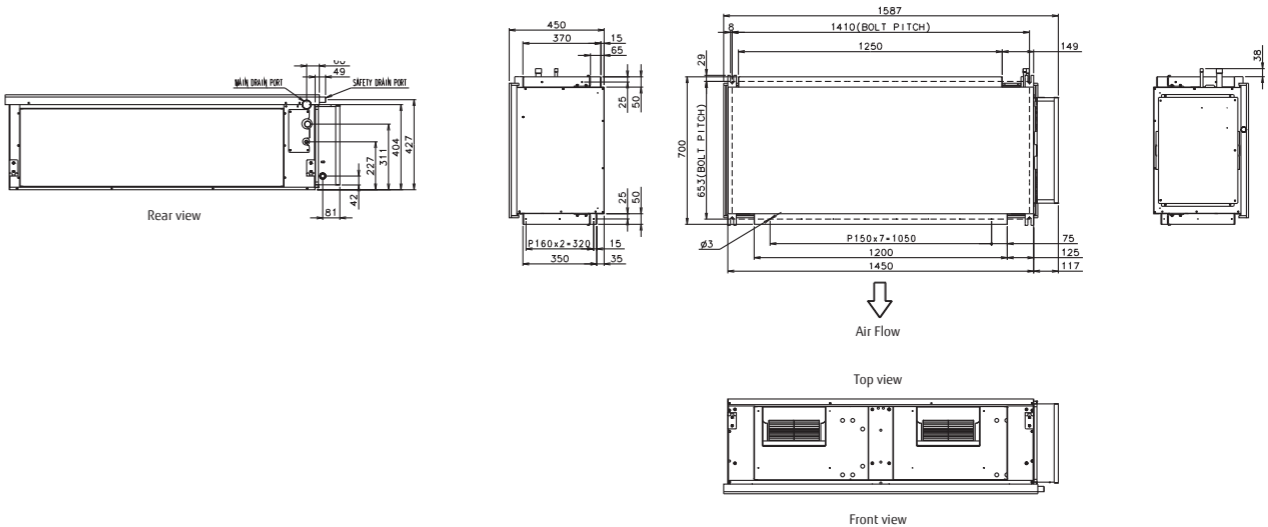
Floor / Ceiling

Models
ABHA12GATH
ABHA14GATH
ABHA18GATH
ABHA24GATH

Floor standing

DC FAN

Feature

Flexible installation

Example for floor installation

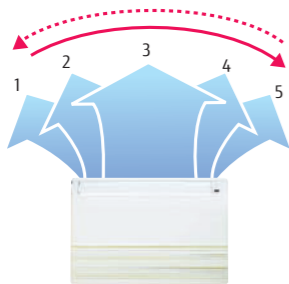Floor console

Example for ceiling installation
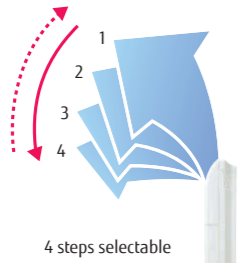
Under ceiling

Double auto swing

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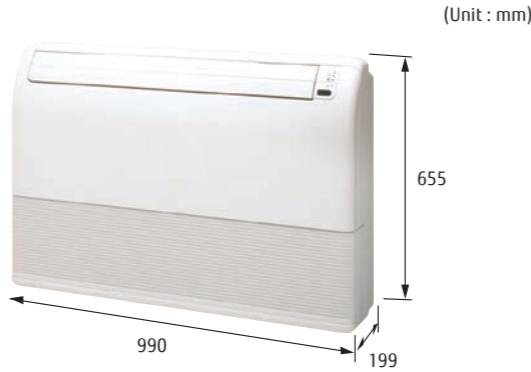
RIGHT and LEFT SWING

UP and DOWN SWING

4 steps selectable

High power DC fan motor

• High power
• Wide rotation range
• High efficiency

Compact design

Symmetrical, slim and compact design.

(Unit : mm)

655
990
199

Auto-closing louver

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

Super vane

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

Specifications

Model name			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH
Power source			Single phase, 220-240V, 50Hz			
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	m³/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].

Dimensions (Unit: mm)

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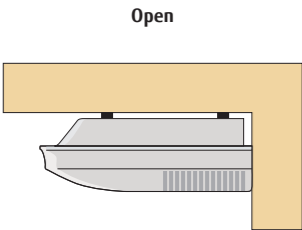② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Ceiling

Models
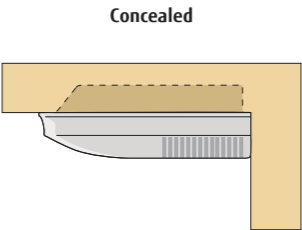ABHA30GATH
ABHA36GATH
ABHA45GATH
ABHA54GATH

DC
FAN

Feature

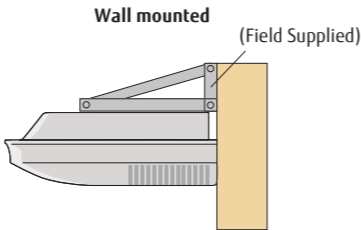## Installation

Open

Concealed

Wall mounted
(Field Supplied)

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

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

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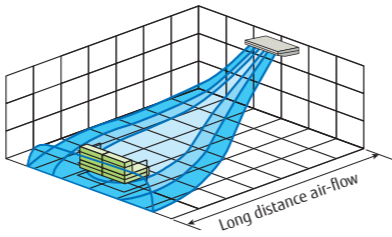This type of installation can be used
when the ceiling space is insufficient.

Double auto swing and wide airflow

Auto airflow direction and auto swing

Right and left

5 steps selectable

Up and down

1
2
3
4

4 steps selectable
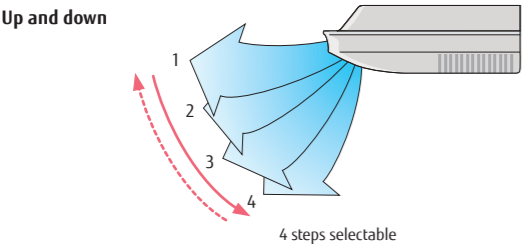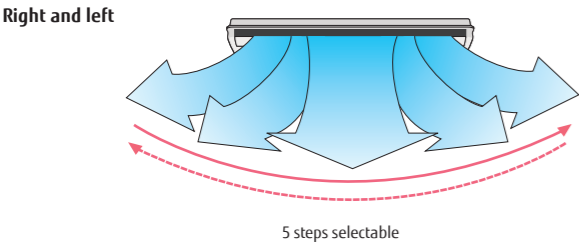
Long airflow

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

Long distance air-flow

High power DC fan motor

• High power • Wide rotation range • High efficiency

Fresh air intake

Fresh
air

Indoor

Outdoor
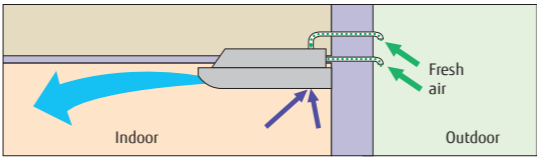
Slim & Compact design

Hight
240 mm
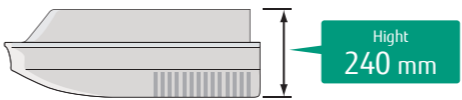
High lift drain pump

Optional drain pump unit allows flexible installation design.

Maximum
500 mm
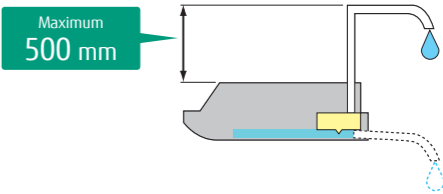
Optional parts

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

Specifications

Model name			ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH
Power source			Single phase, 220-240V, 50Hz			
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	m³/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].

Dimensions (Unit: mm)

1660
1600
700
300
130
150
115 100 30
240
200
35
33 88 165

82 135
160
118
137
150
88
202
160
192

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

Wall Mounted

Models (EEV internal) | **Models** (EEV internal) | **Models** (EEV external)

ASHA07GACH	ASHA07GATH	ASHE07GACH
ASHA09GACH	ASHA09GATH	ASHE09GACH
ASHA12GACH	ASHA12GATH	ASHE12GACH
ASHA14GACH	ASHA14GATH	ASHE14GACH

DC FAN

Feature

Filter features

High performance filter provides high quality air conditioning

Long-life* Ion Deodorization Filter

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

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

Apple-catechin Filter

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

Deodorizing effect (Odor reduction rate)

Ammonia

(ppm)
With no filter
New filter
0   30   60   120   (min)

Trimethylamine

(ppm)
With no filter
New filter
0   30   60   120   (min)

Hydrogen sulfate

(ppm)
With no filter
New filter
0   30   60   120   (min)
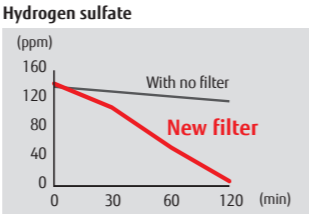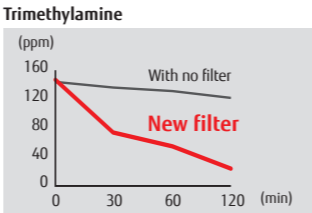
High performance filters have been thoroughly tested by the Environmental Sanitary Inspection Center using an advanced Deodorization Test.

Auto swing louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.

① ② ③ ④

Swing

▶ Step
- - ▶ Swing
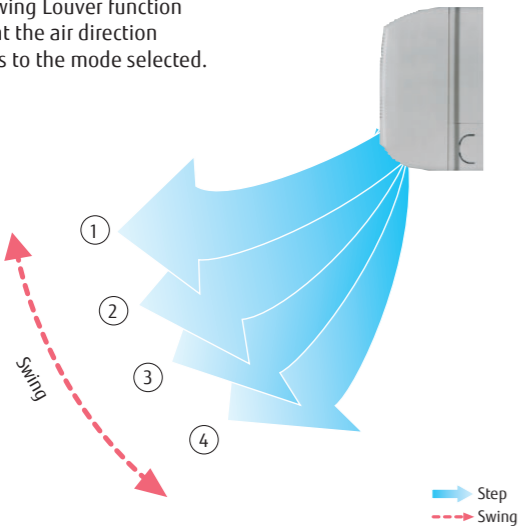
Compact size

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.
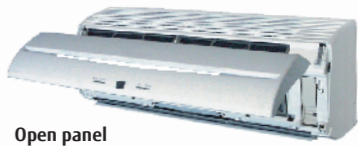
Width 790 mm

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

Symmetrical design

Symmetrical, clean design that suits all interiors.

Specifications

Model name		ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH
Power source		Single phase, 220-240V, 50Hz				Single phase, 220-240V, 50Hz			
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5
	Heating		2.8	3.2	4.1	5.0	2.8	3.2	4.1	5.0
Input power		W	17	18	22	34	15	16	21	34
Airflow rate	High	m³/h (l/s)	490 (136)	500 (139)	560 (156)	670 (186)	490 (136)	500 (139)	560 (156)	680 (189)
	Med		450 (125)	450 (125)	480 (133)	490 (136)	450 (125)	450 (125)	480 (133)	490 (136)
	Low		370/420*¹ (103/117*¹)	370/420*¹ (103/117*¹)	420 (117)	420 (117)	370/420*¹ (103/117*¹)	370/420*¹ (103/117*¹)	420 (117)	420 (117)
Sound pressure level	High	dB (A)	35	36	39	44	34	35	38	43
	Med		33	33	35	37	32	32	34	35
	Low		27 / 31*¹	27 / 31*¹	31	32	26 / 30*¹	26 / 30*¹	30	30
Dimensions (H × W × D)		mm	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215
Weight		kg(lbs)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
	Gas (Flare)		12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70
Drain hose diameter (I.D./O.D.)			13.8 / 15.8 to 16.7				13.8 / 15.8 to 16.7			
EV Kit (option)			–	–	–	–	UTR-EV09XB	UTR-EV09XB	UTR-EV14XB	UTR-EV14XB

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

Dimensions (Unit: mm)

790
275
215
470
530
660
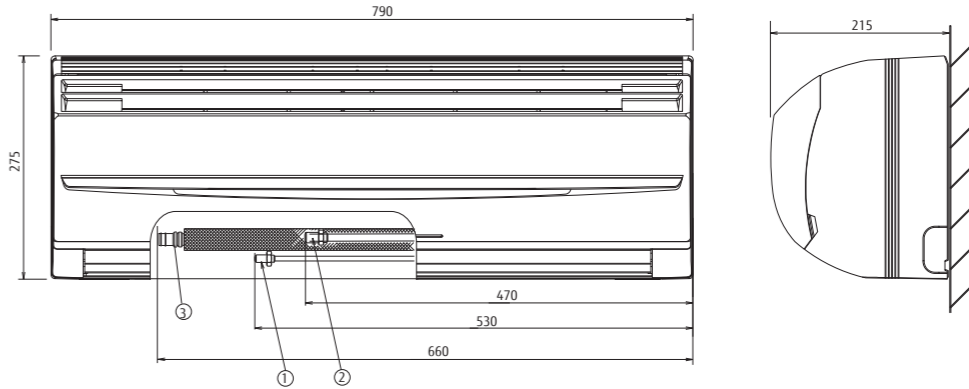
① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Wall Mounted

Models
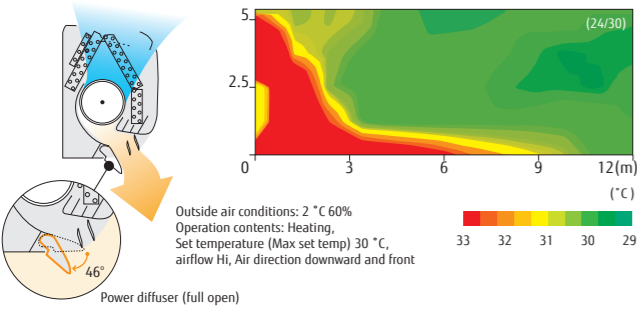**ASHA18GACH   ASHA18GATH**
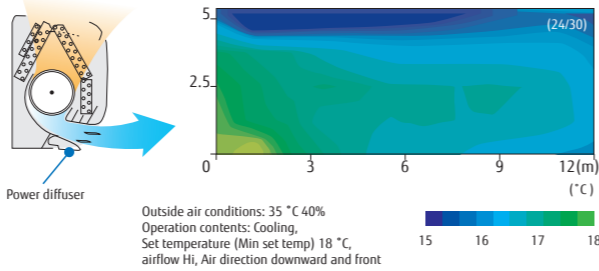**ASHA24GACH   ASHA24GATH**
ASHA30GACH   ASHA30GATH

DC FAN

Feature

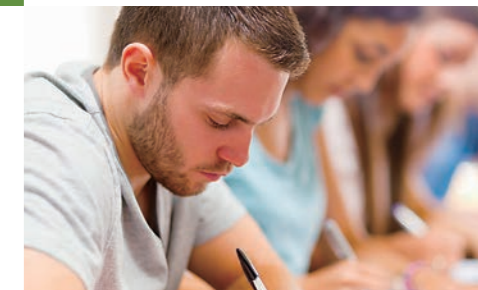### More comfort airflow by adopting power diffuser

"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

| 33 | 32 | 31 | 30 | 29 |

Power diffuser (full open)

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

Power diffuser

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

| 15 | 16 | 17 | 18 |

Air conditioner filter features

Ion Deodorization Filter

Organic coating fin used
heat exchanger

Apple-catechin
Filter

Air Filter
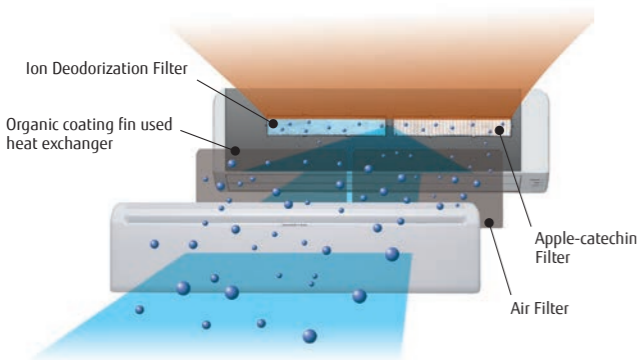
High quality air conditioning by incorporation of high performance filter.

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

① ② ③ ④

Swing
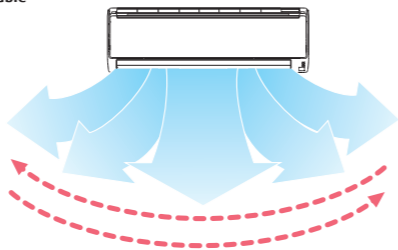
→ Step
--- Swing
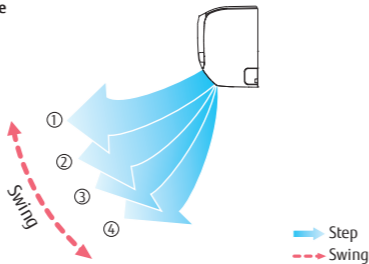
Compact & Slim design

By using DC fan motor, compact design is realized.

998 mm

DC fan motor

Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

Specifications

Model name			ASHA18GACH ASHA18GATH	ASHA24GACH ASHA24GATH	ASHA30GACH ASHA30GATH
Power source			Single phase, 220-240V, 50Hz		
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	m³/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].

Dimensions (Unit: mm)

998
320
520
590
721
228
520
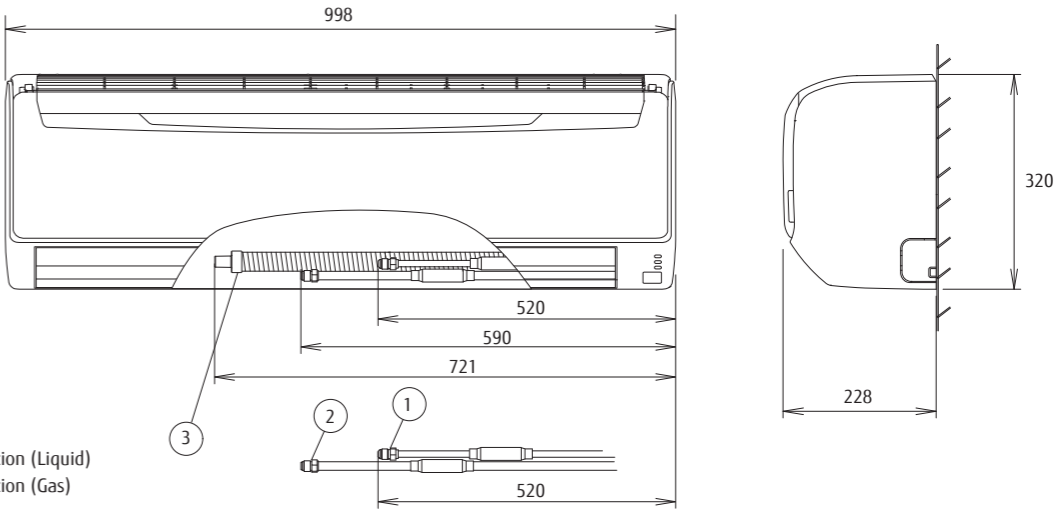
① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

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

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

AIRSTAGE™
CONTROL SYSTEMS

BEST CONTROL SOLUTION FOR EACH PROPERTY

CONTROL SYSTEM OVERVIEW

COMPARISON TABLE OF CONTROLLERS

Individual Controller

Centralized Controller

Convertor / Adaptor

Office 01   Fri 10:00AM

| Mode	Set Temp.	Fan
Cool	**26.0**°C	Auto

Room Temp. 26.0°C

Status   Menu

AIRSTAGE™

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 Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor
	UTY-RNRGZ3, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-DCGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of A/C (Schedule timer, Weekly timer etc.)	●	●	●			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)		●	●	●	●	●
Group Control		●	●			
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)			●			
Remote Management			●			
Manage multiple sites			●			
Monitor energy consumption			●			
Control third party products			●			
Integrate FGL A/C into BMS				●	●	●

HOTEL

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 Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRGZ3, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-DCGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for hotel guest	●	●	●							
Centralized A/C control for common space				●	●	●	●	●	●	
Limited control for hotel guests				●	●	●	●	●	●	
Remote Management					●					
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)					●	●				
Monitor energy consumption					●					
Control third party products					●					
Integrate FGL A/C into BMS						●	●	●	●	
Interlock with window contact										●
Interlock with key-card										●

OFFICE

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 Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRGZ3, UTY-RLRG UTY-RCRGZ1, UTY-RCRGZ1K	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-DCGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for office staff	●	●	●	●						
Automatic control of A/C (Schedule timer, Weekly timer etc.)	●		●	●	●	●				
Centralized A/C control for management				●	●	●	●	●	●	
Limited control for office staff (RC Prohibition, Room temp set point limitation etc.)				●	●	●	●	●	●	
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)					●	●				
Remote Management					●					
Energy Charge Apportionment					●	●				
Monitor energy consumption					●					
Control third party products					●					
Integrate FGL A/C into BMS						●	●	●	●	
Interlock with door contact										●
Interlock with human sensor for meeting room										●

CONTROL SYSTEM OVERVIEW

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

Air Conditioning
Individual Control

Wired Remote Controller
(Touch panel)
UTY-RNRGZ3

Wired Remote Controller
UTY-RNRG

Compact Wired Remote Controller
UTY-RCRGZ1 NEW

Compact Wired Remote Controller
UTY-RCRGZ1K NEW

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-LRHGB1 For Cassette type
UTY-LBHXD For Circular Flow Cassette

For Cassette   For Circular Flow Cassette

Air Conditioning
Centralized Control

Internet or Public Telephone Line

Remote/ Monitoring side

USB Adaptor *1
(Field supplied)

System Controller Software
UTY-APGXZ1 / UTY-ALGXZ1 (Lite edition)

Maximum controllable
1600* Indoor units

*: Lite edition is maximum controllable 400 indoor units

Central Remote Controller
UTY-DCGGZ1 NEW

Maximum controllable
100 Indoor units

Convertor / Adaptor
For external device

BACnet® Gateway
UTY-ABGXZ1 Software

BACnet® Gateway
UTY-VBGX Hardware

Network Convertor For LONWORKS®
UTY-VLGX

MODBUS® Convertor
UTY-VMGX

MODBUS® Interface
FJ-RC-MBS-1

KNX® Convertor For VRF
UTY-VKGX

KNX® Interface
FJ-RC-KNX-1i

Wireless LAN Interface
FJ-RC-WIFI-1

External Switch Controller
UTY-TERX

Card-key
(Field supplied)   Internet device

BMS/BAS *2

BMS, Home automation system
or

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

Convertor / Adaptor
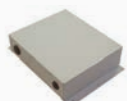### For system expansion

Network Convertor
(DC power supply)
UTY-VTGX   Single split

Network Convertor
(AC power supply)
UTY-VTGXV   Single split

Signal Amplifier
UTY-VSGXZ1

Thermostat Convertor
UTY-TTRX

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-RNRGZ3	UTY-RLRG	UTY-RCRGZ1	UTY-RCRGZ1	UTY-RSRG	UTY-RHRG	UTY-LNHGU	UTY-DCGGZ1	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	–	–	–	–	–	–	–	16	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	●	–	●	●	–	–	–	–	–	–
Group setting	–	–	–	–	–	–	–	●	●	●
RC prohibition	–	–	–	–	–	–	–	●	●	●
Anti freeze setting	●	–	●	●	–	–	–	●	●	●
Set temp. auto return	●	●	–	–	–	–	–	–	–	–
Economy mode setting	●	●	●	●	–	–	●	●	●	●
Human sensor control	●	–	–	–	–	–	–	–	●	●
Display										
Error	●	●	●	●	●	●	●	●	●	●
Defrosting	●	●	●	●	●	●	–	●	●	●
Current time	●	●	–	–	–	–	●	●	●	●
Day of 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
Schedule timer — On/off, Temp, Mode, 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.

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

Wired Remote Controller (Touch Panel)

Maximum controllable
16
indoor units

UTY-RNRGZ3

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

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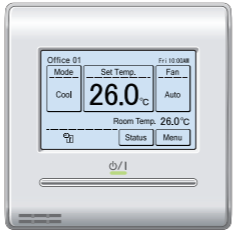
Functions

High performance and compact size

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

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

Accurate and comfortable control

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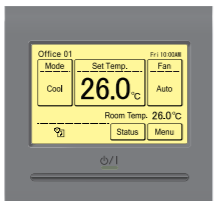
Room temperature sensor

Room temperature display

Backlight

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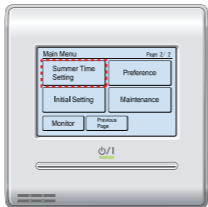
Various convenient functions

Displays setting status and Limitations

• The remote controller settings can be easily checked
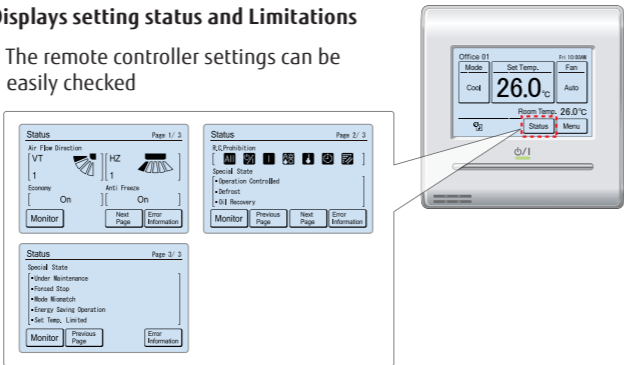
Summer Time display

• This function can be set easily from Menu screen

Child lock

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

Name Registration

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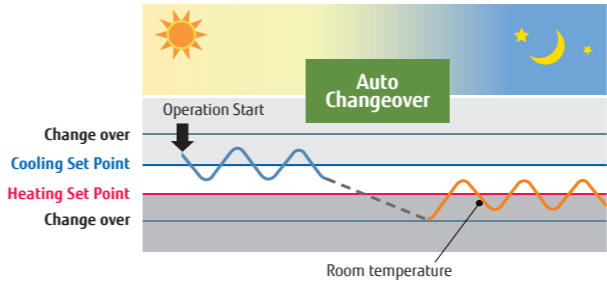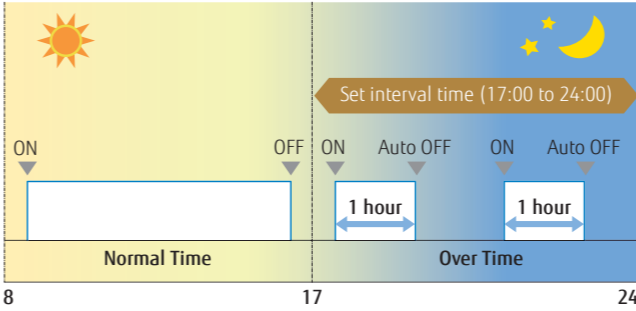
Various energy saving control

Custom Auto

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

Cooling set temp. 27℃, Heating set temp. 26℃

Auto Changeover

Operation Start

Change over
Cooling Set Point
Heating Set Point
Change over

Room temperature

Auto OFF timer

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

Set interval time (17:00 to 24:00)

ON   OFF ON   Auto OFF   ON   Auto OFF
                    1 hour   1 hour

Normal Time   Over Time

8   17   24

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

2 schedules Weekly Timer

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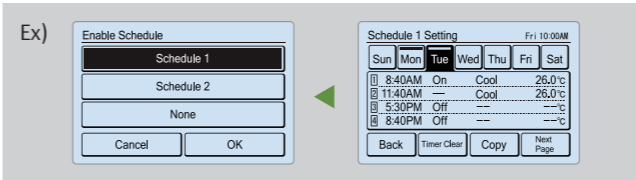
Ex)

Set Temperature Auto Return

• The setting temperature automatically returns to the previous setting temperature.
• The time range in which the set temperature can be changed is 10 to 120 minutes.
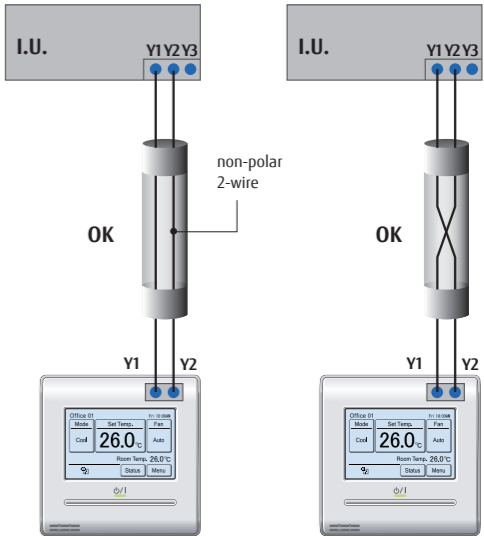
Set Temperature Upper and Lower Limit Setting

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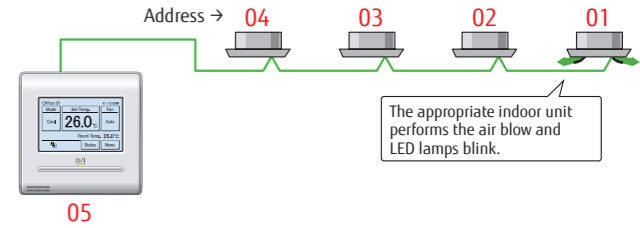
Simplified installation

Uses non-polar 2-wire type

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

I.U.   Y1 Y2 Y3   I.U.   Y1 Y2 Y3

non-polar
2-wire

OK   OK

Y1   Y2   Y1   Y2

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

Address → 04   03   02   01

The appropriate indoor unit performs the air blow and LED lamps blink.

05

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-RNRGZ3
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

Maximum controllable
16
indoor units

UTY-RLRG

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

Functions

High performance and compact size

In addition to the individual control, weekly timer, and various energy saving controls can be realized using only one remote controller.
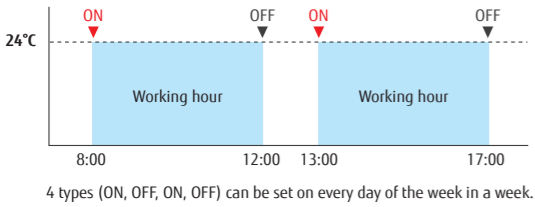
Individual control + Thermo sensor + Weekly timer + Auto OFF timer →

Auto-off timer

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

Operation status
ON
OFF
Auto OFF   Auto OFF

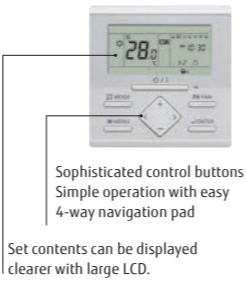Auto-off timer can be set from 30 to 240 minutes
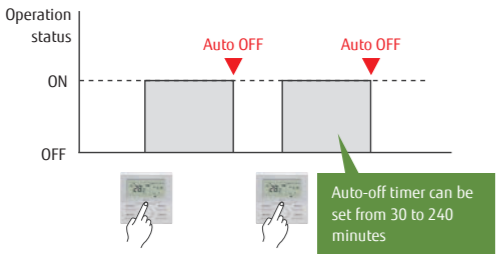
Weekly timer function

• Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.
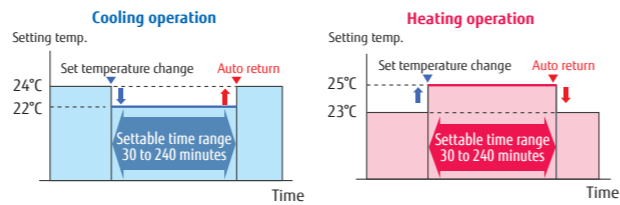
24℃
ON   OFF   ON   OFF
Working hour   Working hour
8:00   12:00 13:00   17:00

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

High visibility and easy operation

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

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

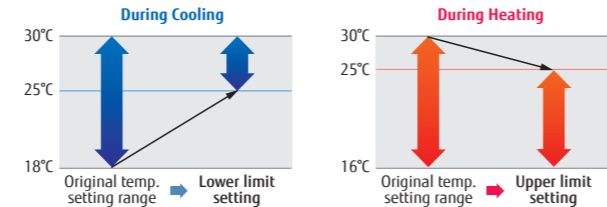Set contents can be displayed clearer with large LCD.

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.

Cooling operation
Setting temp.
Set temperature change   Auto return
24℃
22℃
Settable time range 30 to 240 minutes
Time

Heating operation
Setting temp.
Set temperature change   Auto return
25℃
23℃
Settable time range 30 to 240 minutes
Time

Set temperature upper and lower limit setting

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

During Cooling
30℃
25℃
18℃
Original temp. setting range ➡ Lower limit setting

During Heating
30℃
25℃
16℃
Original temp. setting range ➡ Upper limit setting

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

Maximum controllable
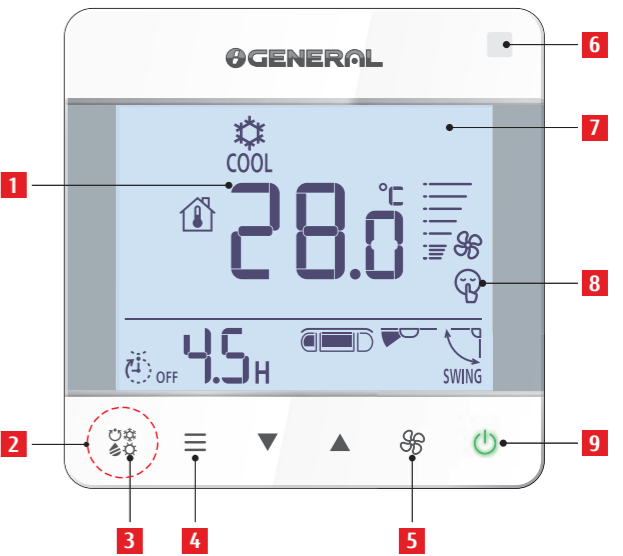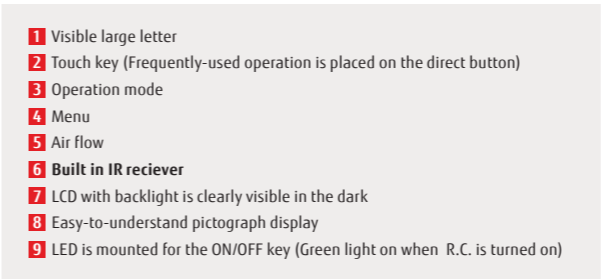**1**
indoor units

UTY-RCRGZ1 NEW
UTY-RCRGZ1K NEW

• 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

UTY-RCRGZ1   UTY-RCRGZ1K
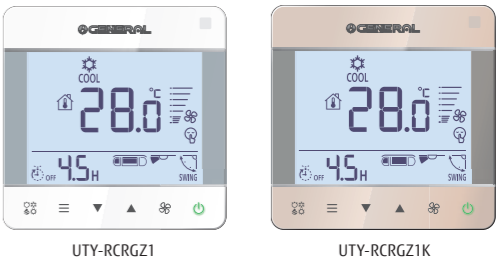
Functions

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.

Central remote controller — VRF system

Compact Wired Remote Controller

Non-polar and 2-wire system
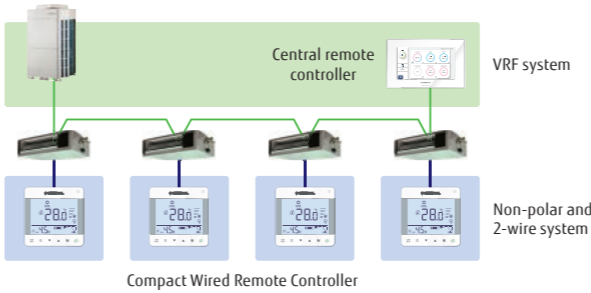
• RAC (Room air conditioner) connection

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

RAC system

Compact Wired Remote Controller

Non-polar and 2-wire system
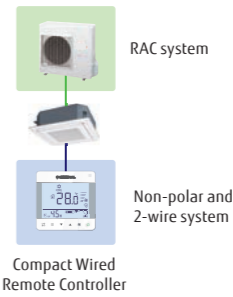
Specifications

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

Maximum controllable
16
indoor units

UTY-RSRG
UTY-RHRG (Without Operation mode)

Compact remote controller provides access to basic functions

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

UTY-RSRY   UTY-RHRY
Without Operation mode
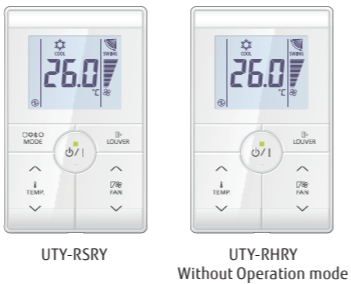
Functions

Corresponding to various applications

• Vertical louver control:

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

• Room temperature set point limitation:

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

During Cooling

30℃
25℃
18℃

During Heating

30℃
25℃
16℃
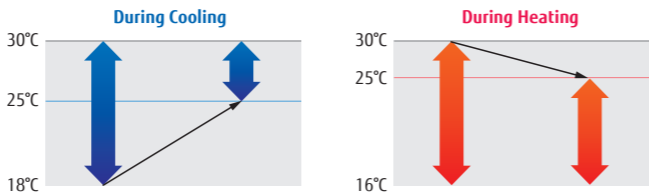
• Built in room temperature sensor:

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

Room temperature sensor
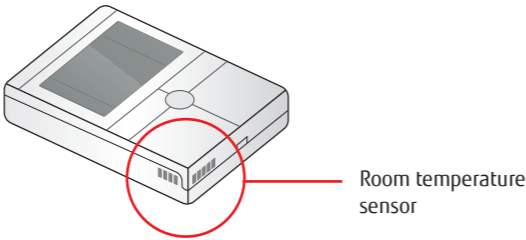
Specifications

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

DC12V is supplied by indoor unit.

Wireless Remote Controller

Maximum controllable	Selectable
16	**4**
indoor units	daily timers

UTY-LNHG

Simple and sophisticated operations
with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.

Functions

Built-in daily timer

Select from 4 different timer programs : On / Off / Program / Sleep
Program timer : The program timer operates the ON and OFF timer once within a 24 hour period.
Sleep timer : The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.
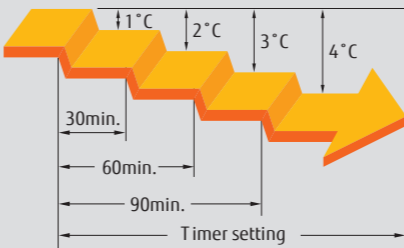
Cooling operation/dry operation

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

Timer setting
60min.
1˚C
2˚C
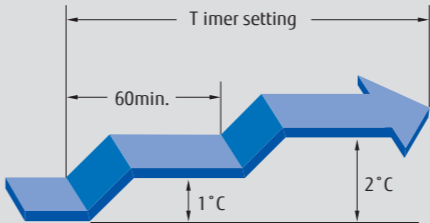
Heating operation

When the sleep timer is set, the set temperature automatically drops 1˚C every 30 minutes. The set temperature can drop to a max. of 4˚C.
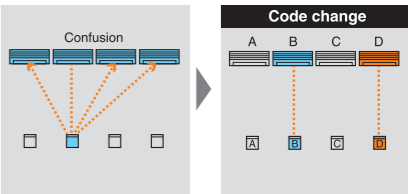
1˚C 2˚C 3˚C 4˚C
30min.
60min.
90min.
Timer setting

Easy installation and operation

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

| Code change |
| Confusion |
| A B C D |

Wide and precise

Address setting

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

Transmission line
Outdoor unit
Indoor unit
Wireless
Remote Controller

Specifications

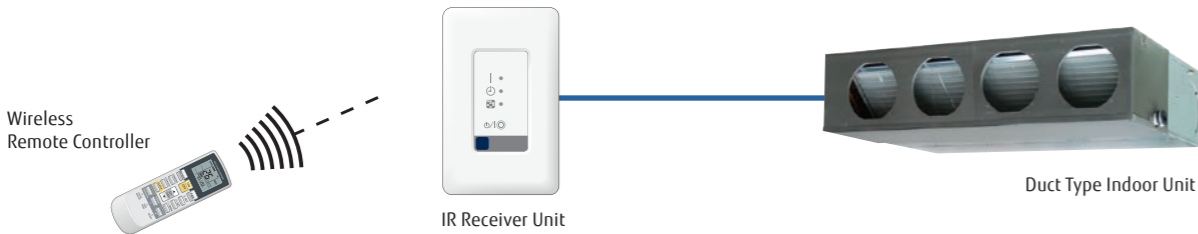| Model name		UTY-LNHG
Power Supply		1.5V (R03 / LR03 / AAA) × 2
Dimensions (H x W x D)	mm	170 × 56 × 19
Weight	g	85
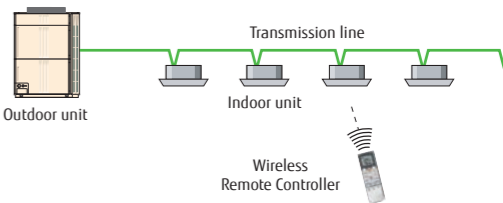
IR Receiver Unit

UTB-YWC

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

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

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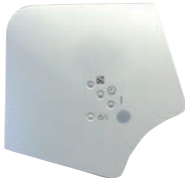
Functions

Wiring connection

Wireless
Remote Controller

IR Receiver Unit

Duct Type Indoor Unit

Specifications

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

IR Receiver Unit

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

Cassette type indoor unit can be controlled
with Wireless Remote Controller

UTY-LRHGB1   UTY-LBHXD

Functions

Wiring connection

Wireless
Remote Controller

Wireless
Remote Controller

Specifications

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

Central Remote Controller

Maximum controllable **100** indoor units
Maximum controllable **50** groups

UTY-DCGGZ1 NEW

For small- and medium-sized buildings and tenants

• Individual control and monitor of 100 indoor units
• 7.0inch TFT color screen
• High visibility and easy operation
• Supports 12 different languages
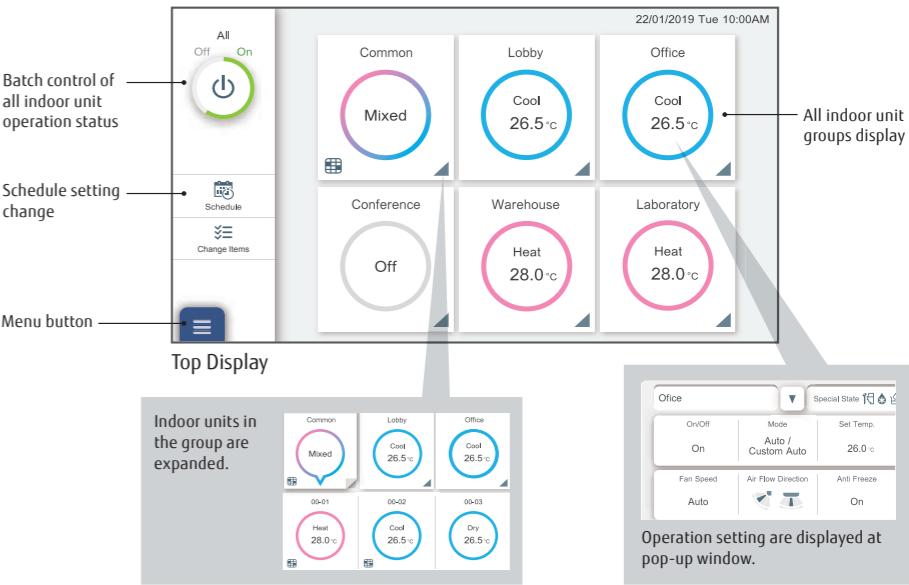 (English, Spanish, German, French, Italian, Russian,Portuguese, Turkish, Polish, Greek, Dutch, Chinese)
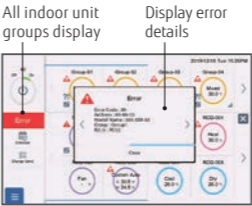
Functions

Easy operation

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

Batch control of all indoor unit operation status

Schedule setting change

Menu button

All indoor unit groups display

Top Display

Indoor units in the group are expanded.

Operation setting are displayed at pop-up window.

Trouble support function

Display error details
Display descriptive explanation when an error occurs

All indoor unit groups display

Display error details

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.

Remote monitoring / Remote operation

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

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

Shop   Error   !
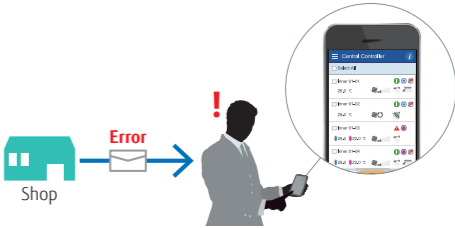
Specifications

Model name		UTY-DCGGZ1
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 (Software)

Maximum controllable	Maximum controllable	Maximum controllable
4	**1,600**	**400**
VRF network systems	indoor units	outdoor units

UTY-APGXZ1

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

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

System Controller Lite (Software)

Maximum controllable	Maximum controllable	Maximum controllable
1	**400**	**100**
VRF network system	indoor units	outdoor units

UTY-ALGXZ1

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

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

Functions

User friendly view and operation

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

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

Click & Operate the whole building !
Properties can be shown using one of the four displays of site, building, floor, or list.

Click & Operate any specified unit(s) !

The display is easily changed by pressing the button.

Site view

List view

Batched control of freely defined groups

Batched control of freely selected units

Building view

Note:
2D floor layout / 3D building display are not available for System Controller Lite.

Click & Operate the whole floor !

The floor layout drawing can be imported to easily make the settings for the actual building.

Floor view

Click & Operate the unit !

Batched control of freely selected units

3rd party devices connected by Modbus can be controlled.

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

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

VRF Network

Remote I/O devices

Supported Modbus communication (Field supply)

Facilities
Energy recovery ventilator system
Air handling unit (DX kit)
Supply & Exhaust fan

System Controller (System Controller Lite)

Electricity meter supported Modbus communication

Electric power company
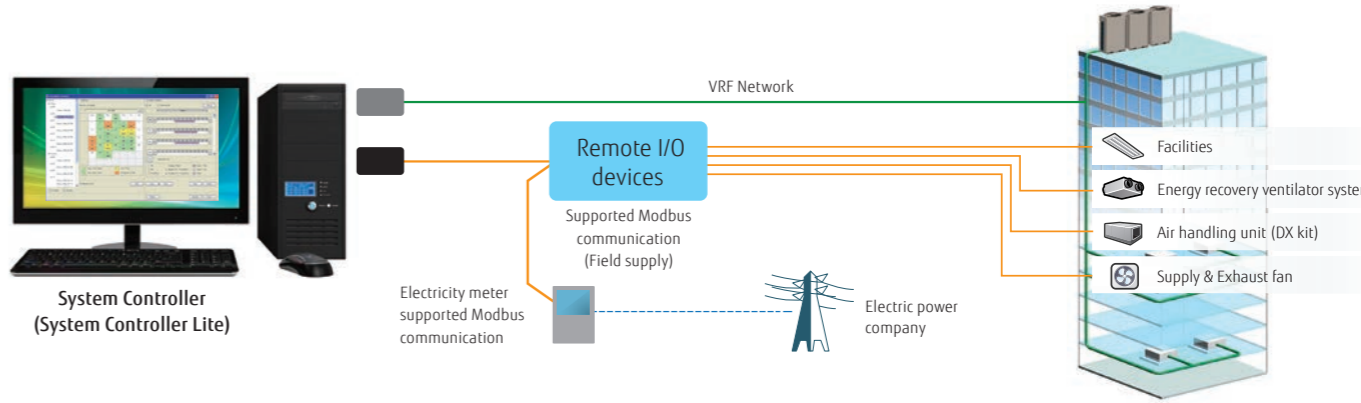
3D display of external equipment

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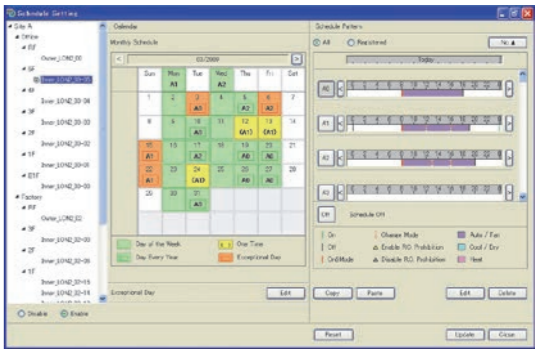
3D display operation

4F   Outdoor unit
3F   New 3rd party device
2F   Indoor unit
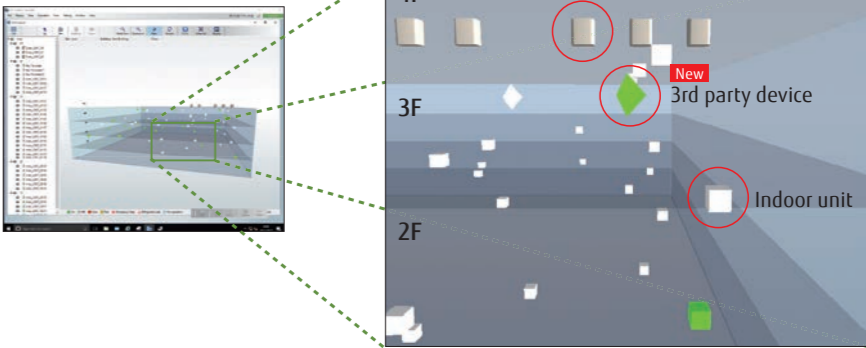
*UTY-APGXZ1 only

Diverse operation management & Data management

Schedule management

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

Diverse control of indoor and outdoor unit

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

Remote controller prohibition

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

Automatic clock adjustment

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

Error display & E-mail notification

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

Data base import/export

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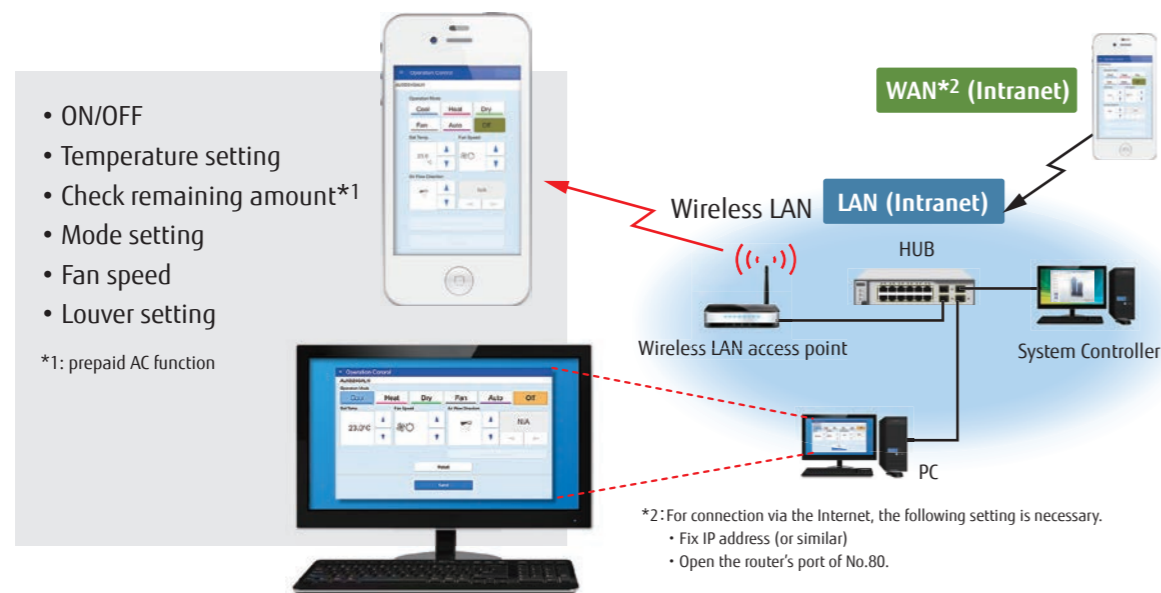
Operating & control record

Displays the history of operation status and control.

Functions

Web Operation

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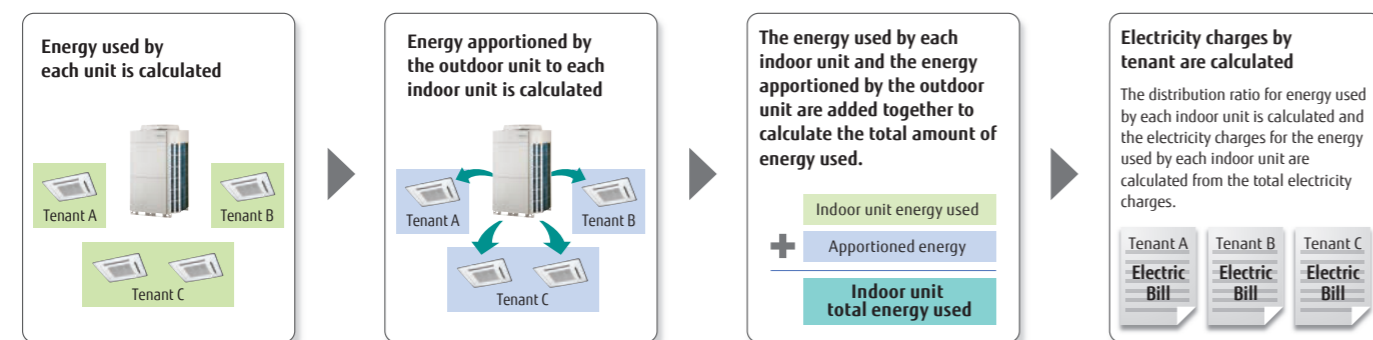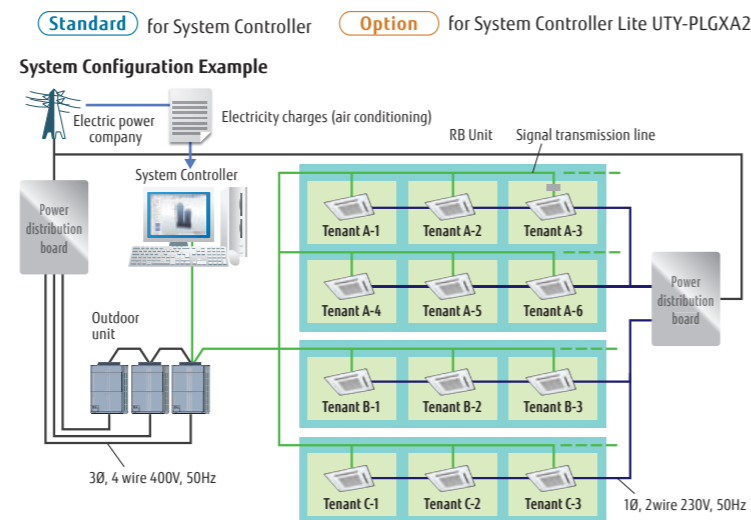(Indoor unit user setting is necessary to operate it from System Controller side)

- ON/OFF
- Temperature setting
- Check remaining amount*1
- Mode setting
- Fan speed
- Louver setting

*1: prepaid AC function

WAN*2 (Intranet)

LAN (Intranet)

Wireless LAN

HUB

Wireless LAN access point

System Controller

PC

*2：For connection via the Internet, the following setting is necessary.
・Fix IP address (or similar)
・Open the router's port of No.80.

Electricity charge apportionment

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

Electricity charge apportionment calculation framework

Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. This information is then used to calculate the charges for the electricity consumed for air conditioning by each tenant from the total electricity charges in the bill from the electric power company. (See figure at right)
The detailed calculation takes into consideration such things as unused rooms and nighttime electricity charges and shows them in a charges calculation sheet.
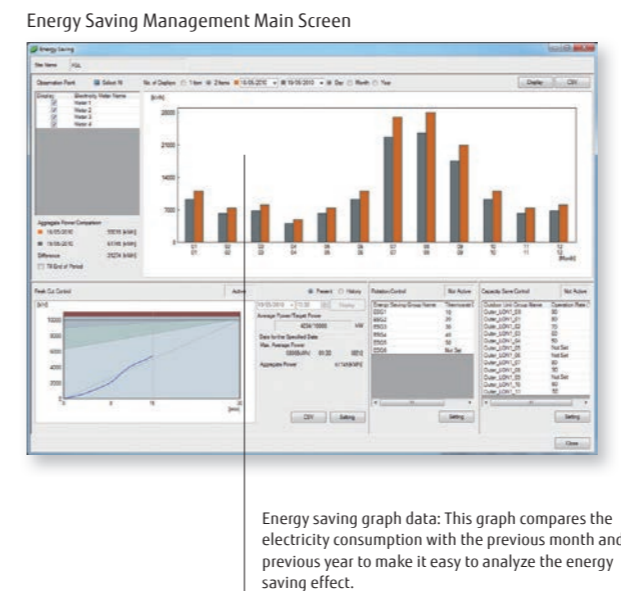
System Configuration Example

Electric power company

Electricity charges (air conditioning)

RB Unit   Signal transmission line

System Controller

Power distribution board

Outdoor unit

Tenant A-1   Tenant A-2   Tenant A-3
Tenant A-4   Tenant A-5   Tenant A-6
Tenant B-1   Tenant B-2   Tenant B-3
Tenant C-1   Tenant C-2   Tenant C-3

Power distribution board

3Ø, 4 wire 400V, 50Hz

1Ø, 2wire 230V, 50Hz

Energy used by each unit is calculated

Tenant A   Tenant B
Tenant C

Energy apportioned by the outdoor unit to each indoor unit is calculated

Tenant A   Tenant B
Tenant C

The energy used by each indoor unit and the energy apportioned by the outdoor unit are added together to calculate the total amount of energy used.

Indoor unit energy used
Apportioned energy
Indoor unit total energy used

Electricity charges by tenant are calculated

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

Tenant A   Tenant B   Tenant C
Electric Bill   Electric Bill   Electric Bill

Remote management

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

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

Remote central control
1 VRF Controller can be monitored from any number of VRF Explorers (Up to 5 connections simultaneously).

VRF Explorer   VRF Explorer   Building Management Company A (In charge of the day shift)
VRF Explorer
Building Management Company B (In charge of the night shift)
Internet or Telephone Line or LAN
Office Management Center
VRF Explorer   VRF Controller
Security Company
Headquarters Management Center

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

VRF Controller   VRF Explorer
A maximum of 10 locations, such as offices or factories
Building management company, management center, etc.
Internet or Telephone Line or LAN

Energy saving management

Option for System Controller UTY-PEGXZ1   Option for System Controller Lite UTY-PLGXE2

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

Energy Saving Management Main Screen

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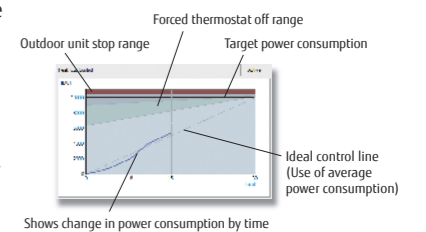
Indoor unit rotation operation

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

Indoor unit rotation screen
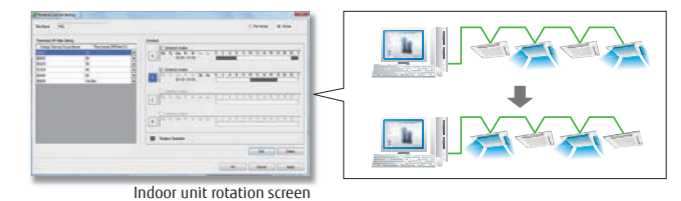
Peak cut operation

A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully control the power consumed while maintaining comfort and conducting control to maintain the target power consumption set for each time. The indoor units to be controlled can be freely grouped and the control level can be set.

Forced thermostat off range
Outdoor unit stop range   Target power consumption
Ideal control line (Use of average power consumption)
Shows change in power consumption by time

Outdoor unit capacity save

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

Hot day of summer
Cold day of winter

Outdoor unit capacity control screen

Outdoor unit capacity upper limit
Power consumption
Time
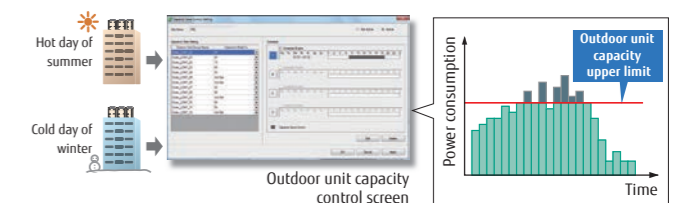
Functions

Custom Auto Function

Set the temperature to start cooling and the temperature to start heating, and perform the cooling / heating operation according to the room temperature. When the room temperature is between the cooling set temperature and the heating set temperature, since air conditioning is not performed, energy saving performance is improved.
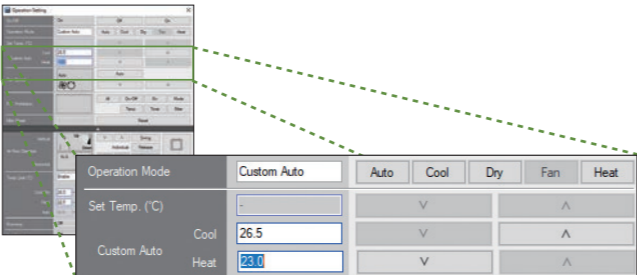
Cooling set temp. 28℃, Heating set temp. 18℃

Custom Auto operation display

Set Temp. [Custom Auto] (° C)

	Cool	Heat
	27.0	23.0
	25.5	23.0
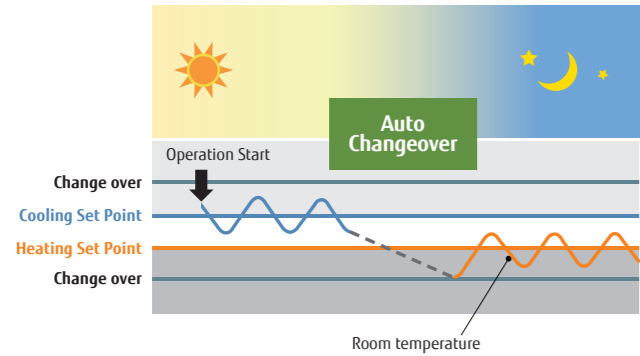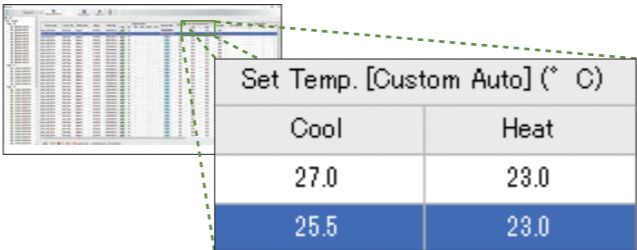
Custom Auto operation display

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

FUNCTIONS SUMMARY

Function	Type	System controller UTY-APGXZ1	System controller Option UTY-PEGXZ1	System controller lite UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
System specification	Max. VRF networks supported	4	—	1	—	—	—	—
	Max. indoor unit / remote controller groups per VRF network	400	—	400	—	—	—	—
	Max. outdoor units per System controller	100	—	100	—	—	—	—
	Max. indoor units / remote controller groups per System controller	1600	—	400	—	—	—	—
	Max. outdoor units per System controller	400	—	100	—	—	—	—
Site supervision	Multi site display	10	—	10	—	—	—	—
	Number of building / 1 site	20	—	—	—	—	—	—
	Number of floor per 1 site	200	—	—	—	—	—	—
	Number of floor per 1 building	50	—	—	—	—	—	—
	3D graphical layout view	●	—	—	—	—	—	—
	2D graphical layout view	●	—	—	—	—	—	—
	List display	●	—	●	—	—	—	—
	Tree display	●	—	—	—	—	—	—
	Group display	●	—	●	—	—	—	—
Error management	Error notification	●	—	●	—	—	—	—
	Audible alarm	●	—	●	—	—	—	—
	Error e-mail notification	●	—	—	—	—	—	—
History	Error history	●	—	●	—	—	—	—
	Operation history	●	—	●	—	—	—	—
	Control history	●	—	●	—	—	—	—
Operation control	Individual control — On/Off	●	—	●	—	—	—	—
	Operation mode	●	—	●	—	—	—	—
	Room temperature	●	—	●	—	—	—	—
	Fan speed	●	—	●	—	—	—	—
	Air flow direction	●	—	●	—	—	—	—
	Economy mode	●	—	●	—	—	—	—
	Room temperature set point limitation	●	—	●	—	—	—	—
	Antifreeze	●	—	●	—	—	—	—
	Outdoor unit low noise setting	●	—	●	—	—	—	—
	Individual management — Remote control prohibition setting	●	—	●	—	—	—	—
	Temperature upper and lower limit setting	●	—	●	—	—	—	—
	Filter sign reset	●	—	●	—	—	—	—
	Other — Memory operation	●	—	●	—	—	—	—
	Pattern operation	●	—	●	—	—	—	—
	Web operation	●	—	●	—	—	—	—
Schedule	Annual Schedule	●	—	●	—	—	—	—
	Special day setting	●	—	●	—	—	—	—
	On /off per day	72	—	72	—	—	—	—
	On / off per week	504	—	504	—	—	—	—
	Day off	●	—	●	—	—	—	—
	Min. unit of timer setting (Minutes)	10	—	10	—	—	—	—
	Low noise mode Weekly schedule	●	—	●	—	—	—	—
	Web Operation	●	—	●	—	—	—	—
Remote management	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 setting	●	—	—	—	●	—	—
	Individual calculation at cooling and heating	—	●*	—	—	●	—	—
	Electricity meter supported	—	●	—	—	●	—	—
Energy saving management	Indoor unit rotation	—	●	—	—	—	●	—
	Peak cut control	—	●	—	—	—	●	—
	Outdoor unit capacity save	—	●	—	—	—	●	—
	Record of energy saving operation	—	●	—	—	—	●	—
	Energy saving information	—	●	—	—	—	●	—
	Power consumption monitor	—	●	—	—	—	●	—
	Electricity meter supported	—	●	—	—	—	●	—
External Device Control	Monitor	●	—	—	—	—	—	●
	Control	●	—	—	—	—	—	●
Others	Database import/export	●	—	●	—	—	—	—
	Automatic clock adjustment	●	—	●	—	—	—	—
	Multi language	7 languages	—	7 languages	—	—	—	—

●●: Available.　－ : Not available.　*:Power calculation application software is necessary, please contact the local FGL representative.

Personal computer system requirements
The required PC specifications are shown in the following table.

	System Controller	System Controller Lite
Operating system	• 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 space355	
Display	1024 x 768 or higher resolution	

Interface	•Ethernet port (for getting access to the Internet using LAN) or
	  Modem (for getting access to the Internet using Public Telephone Line)
	•USB ports (Maximum of 6 ports)
	  (Required only for the Server PC that works as VRF Controller)
	- Maximum of 2 USB ports are required for WHITE-USB-KEY/WibuKey connection
	- Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface
	* Maximum number of required USB port depends on the applicable system configuration.
		•Ethernet port (for getting access to the Internet using LAN) or
		  Modem (for getting access to the Internet using Public Telephone Line)
		•USB ports (Maximum of 6 ports)
		  (Required only for the Server PC that works as VRF Controller)
		- Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connection
		- 1 USB port is required for Echelon® U10 USB Network Interface
		* The maximum number of required USB port depends on the applicable system configuration.

Graphic accelerator	Microsoft® DirectX® 9.0c compatible	
Software	Adobe® Reader® 9.0 or later	

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

<PACKING LIST>

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

*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 WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.
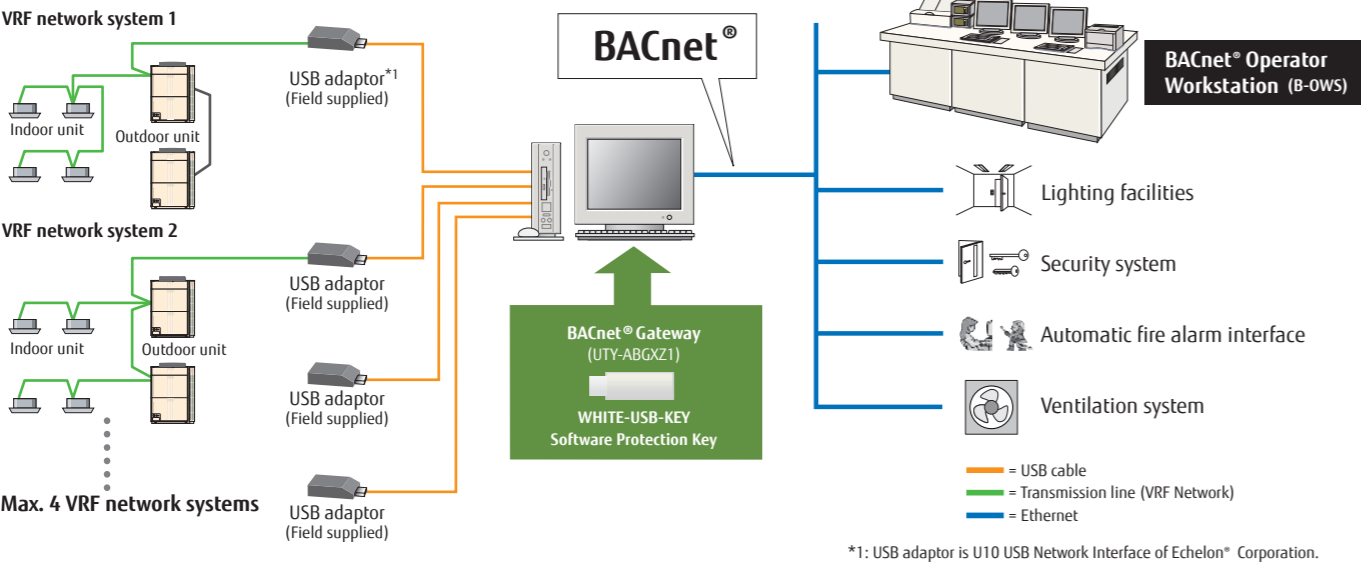
BACnet® Gateway

Maximum controllable	Maximum controllable	Maximum controllable
4	1,600	400
VRF network systems	indoor units	outdoor units

UTY-ABGXZ1

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

BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BACnet International.

WHITE-USB-KEY
(Software Protection Key)

Functions

Installation example

VRF network system 1

Indoor unit Outdoor unit

VRF network system 2

Indoor unit Outdoor unit

Max. 4 VRF network systems

USB adaptor*1 (Field supplied)
USB adaptor (Field supplied)
USB adaptor (Field supplied)
USB adaptor (Field supplied)

BACnet®

BACnet® Gateway
(UTY-ABGXZ1)

WHITE-USB-KEY
Software Protection Key

BACnet® Operator Workstation (B-OWS)

Lighting facilities

Security system

Automatic fire alarm interface

Ventilation system

— = USB cable
— = Transmission line (VRF Network)
— = Ethernet

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

Personal computer system requirements

	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 (Hardware)

Maximum controllable	Maximum controllable	Maximum controllable
1	32	128
VRF network system	refrigerant system	indoor units

UTY-VBGX

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

BACnet is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BACnet International.

Functions

Installation example

BACnet® Operator Workstation (B-OWS)

Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

BACnet® Gateway (Hardware)

BACnet®

Max.128 indoor units & Max.32 refrigerant system

VRF Indoor unit
VRF Indoor unit
VRF Outdoor unit

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 Convertor for LONWORKS®

Maximum controllable	Maximum controllable	Maximum controllable
4	128	100
Units to BMS	indoor units	outdoor units

UTY-VLGX

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

Functions

Installation example

General-purpose building control computer (LONWORKS® device)

Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

Network Convertor for LONWORKS®

LONWORKS® Network

Max.128 indoor units & Max.100 outdoor units

VRF Indoor unit
VRF Indoor unit
VRF Outdoor unit
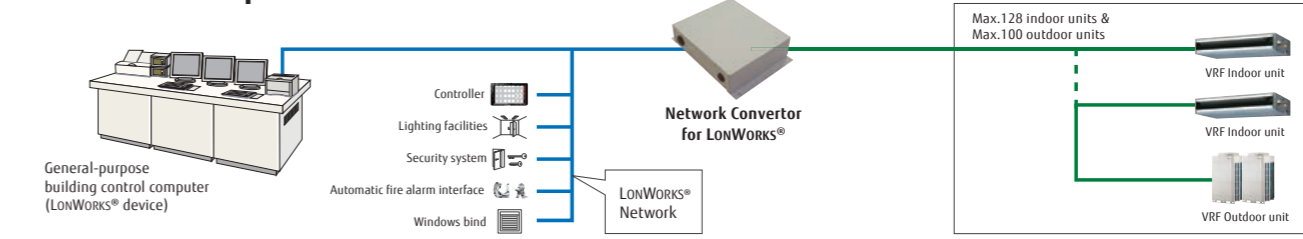
Specifications

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

Maximum connectable	Maximum controllable	Maximum controllable
9 units to one VRF	128 indoor units	100 outdoor units

UTY-VMGX

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

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

Functions

Modbus Network

VRF System (Lon Network)

BMS/Central Controller

Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

MODBUS Convertor for VRF

VRF Indoor unit   VRF Indoor unit

VRF Outdoor unit

* BMS : Bulding 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

MODBUS® Interface

Maximum controllable
1 Single indoor unit

FJ-RC-MBS-1

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

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

Functions

Max. 63 **Modbus** Interface

Modbus Network

BMS/Central Controller

The Modbus Interface can be used with or without Wired Remote Controller.

VRF Indoor unit

VRF Indoor unit

Wired Remote Controller   Split Indoor unit

Specifications

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

KNX® Convertor (for VRF)

Maximum controllable	Maximum controllable
128 indoor units	100 outdoor units

UTY-VKGX

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

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

Functions

KNX Convertor for VRF

Central / Home Controller

Registrable
128 indoor units
100 outdoor units
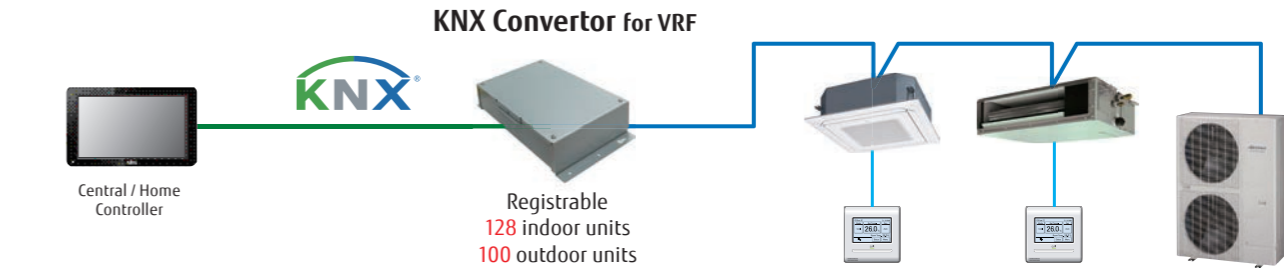
Specifications

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

KNX® Interface

Maximum controllable
1 group

FJ-RC-KNX-1i

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

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

Functions

KNX Network

Home Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

KNX

The KNX Interface can be used with or without Wired Remote Controller.

VRF Indoor unit

or

Wired Remote Controller   Split Indoor unit
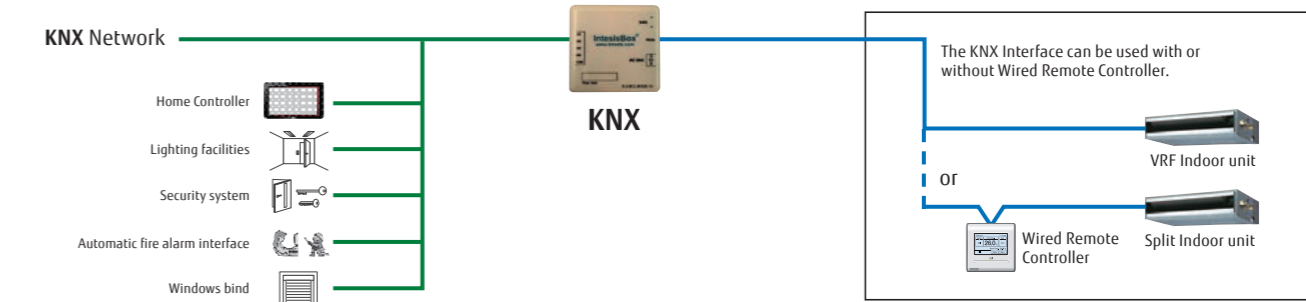
Specifications

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

Wireless LAN Interface IntesisHome®

FJ-RC-WIFI-1

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

Functions

Indoor unit

Wireless LAN Interface

Router (Field supplied)

Internet

IntesisHome®

Smartphone

Tablet

PC
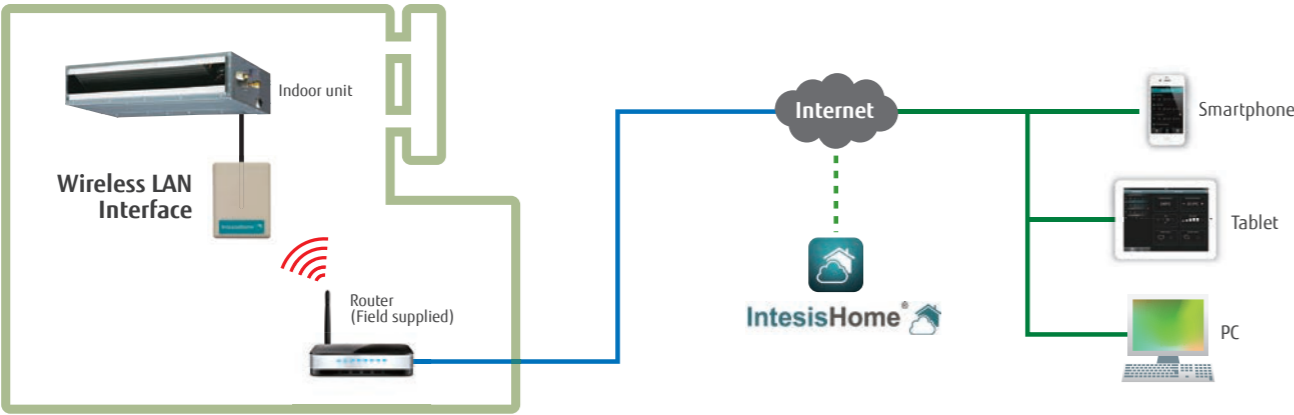
Basic control

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

Advanced control (Optional functions)

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

Notifications and History

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

Specifications

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

Network Convertor

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

Compact remote controller provides access to basic functions

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

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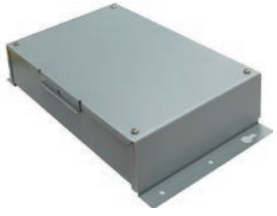
UTY-VTGXV
AC power supply type

Functions

Installation example

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

VRF network System

Network Convertors
(for 1 remote controller)

Network Convertors
(for 2 remote controllers)

AC230V
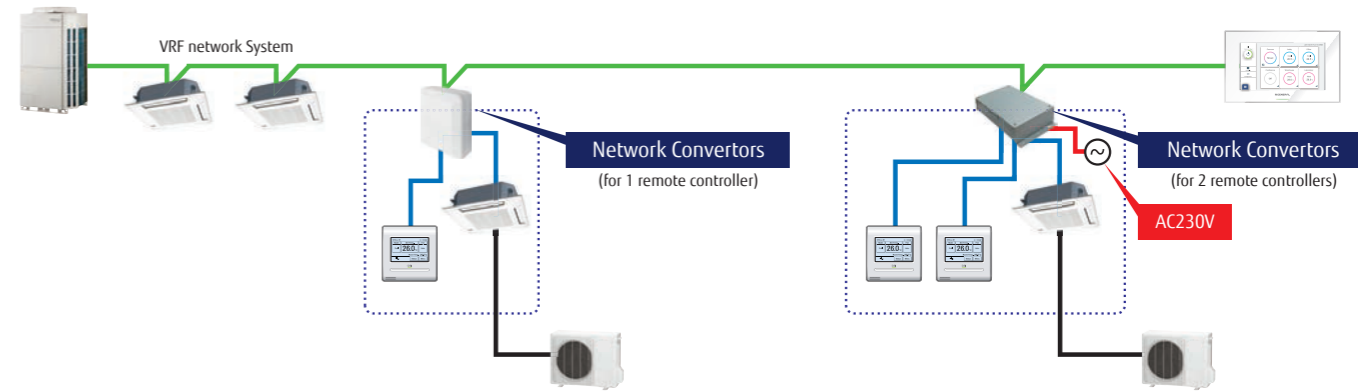
- 2-wire and 3-wire type of the wired remote controller can be connectable.
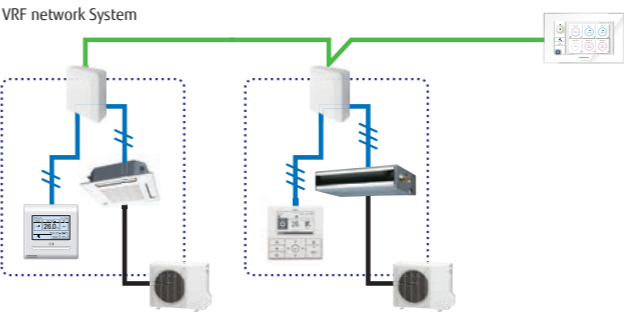
- A central control can be provided for the single split systems. (Up to 100 units of Network Convertor is connectable in one VRF network system)

VRF network System

VRF network System

Up to 100 units of Network Converter
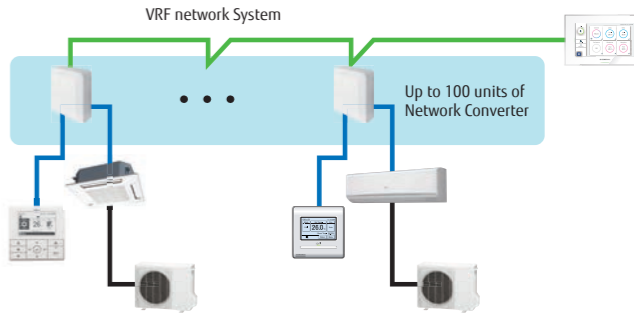
Specifications

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

Maximum controllable
1
group

UTY-TERX

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

Functions

Installation example

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

		SAVE!	AUTO RESTART
Cooling/Dry	+2°C *Max. 30℃		
Set temp.			
Heating			
Set temp.	−4°C *Max. 16℃		
Normal operation	Saving operation	Normal operation	
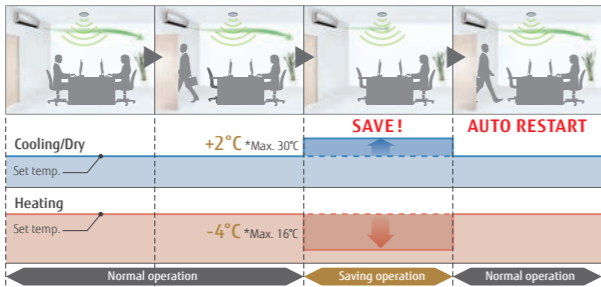
Human sensor equipment needs to be
purchased locally. The above example
indicated that a signal is sent to this
External Switch Controller if human
sensor does not detect for 20 minutes.
Human sensor is not mounted on the
External Switch Controller.

Specifications

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

DC12V is supplied by indoor unit.

Signal Amplifier

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.

Functions

Installation example

Signal Amplifier

AB+BD+BC＜500m
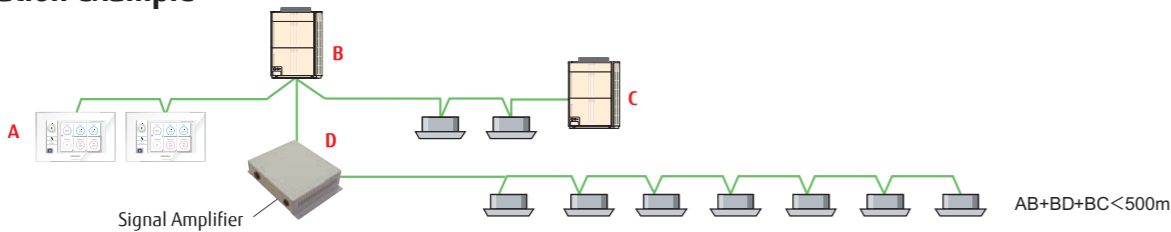
Specifications

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 Convertor

Maximum controllable
16
Indoor units

UTY-TTRX

Control air conditioner using third party thermostat

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

Functions

Installation example

Individual connection   **Group connection**

Thermostat
Convertor

Thermostat
Convertor

26 Thermostat

26 Thermostat

— Remote control line   — Thermostat Wire   ✕ VRF Network (Lon Works)
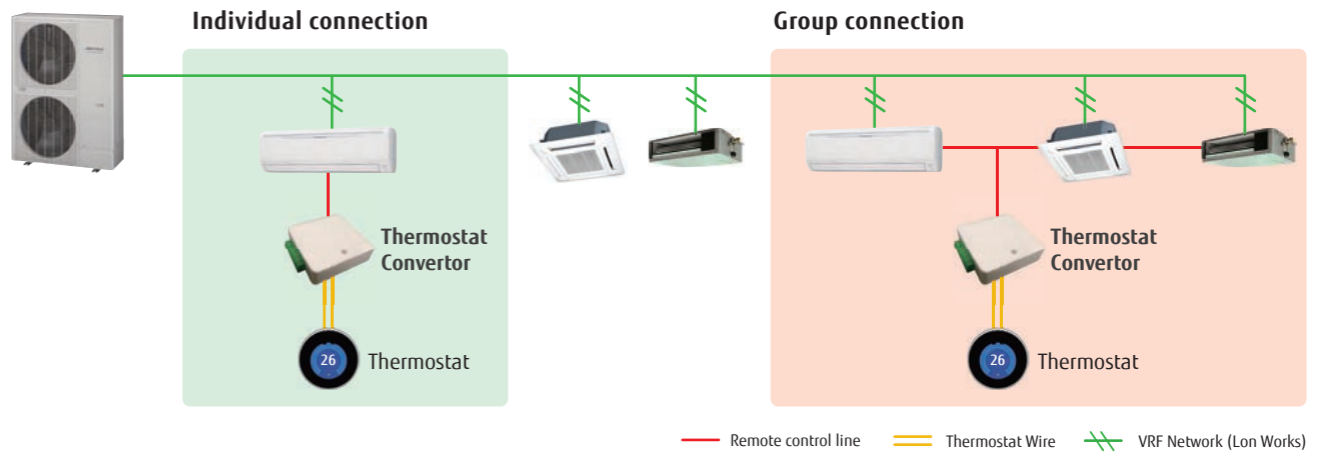
Function

Air Conditioning Control		Air Conditioning Control	
	ON/OFF		Indoor unit Error notification*
	Operation mode		
	Room Temperature		Convertor Error notification*
	Fan Speed		
	Delay OFF		

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

Specifications

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

VENTILATION

EFFECTIVE HEAT EXCHANGE AND SIMULTANEOUS FRESH AIR VENTILATION

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

Outdoor Air Unit

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

Outdoor Air Unit range

Airflow rate (m³/h)	1080	1680	2100
Model code	054	072	096
Outdoor Air Unit	ARXH054GTAH	ARXH072GTAH	ARXH096GTAH

AIRSTAGE™

Outdoor Air Unit

Models
ARXH054GTAH
ARXH072GTAH
ARXH096GTAH

ARXH054

ARXH072

ARXH096

DC FAN

Feature

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

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

*1. Connectable VRF Series: J-IIS

Outdoor Air Unit

VRF system

Duct

Indoor unit   Indoor unit

Fan
Heat Exchanger

Outdoor Air Unit

Fresh Air

Fresh Air

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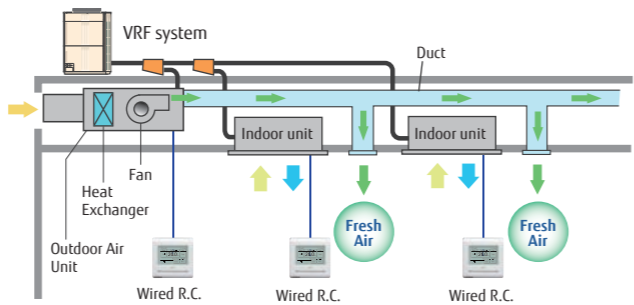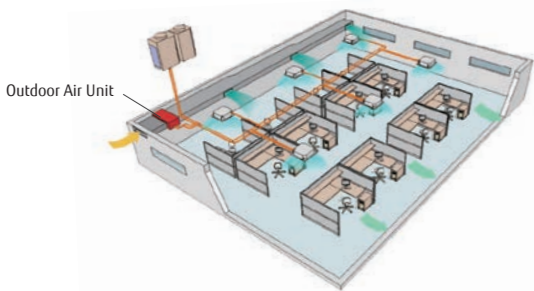
* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30% or less of the outdoor unit capacity.

High energy savings and flexible duct design by using DC motor

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

054 / 072 type   096 type

- 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.

(When external static pressure is small)   **50 to 240 Pa (096 type)**   (When external static pressure is large)

DC Motor   Low speed   High speed

AC Motor   High speed (Constant)   High speed (Constant)
Damper opening small (Field supplied)   Damper opening large (Field supplied)

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)

1367 mm
425 mm
572 mm
(ARXH072 type)
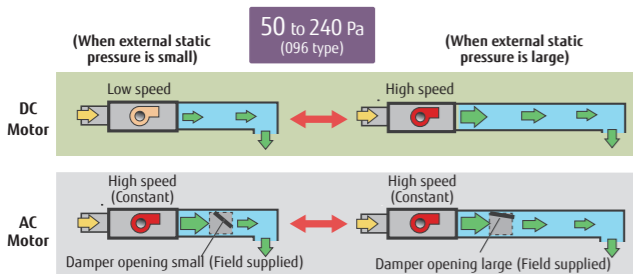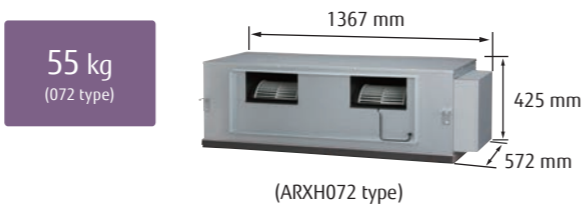
Various Controller

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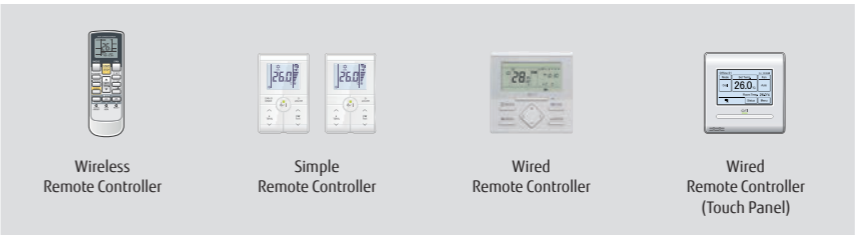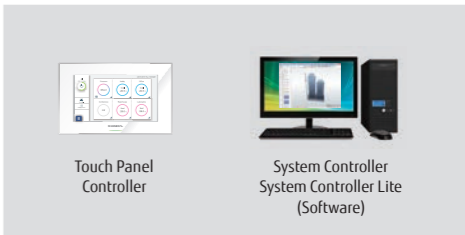
* The temperature setting is discharged air temperature setting. The air volume is set to a constant speed.

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
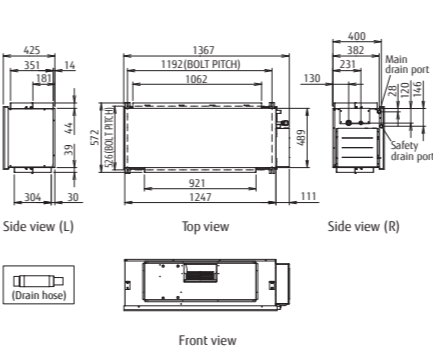
Side view (L)   Top view   Side view (R)
(Drain hose)
Front view

Model: ARXH072

Side view (L)   Top view   Side view (R)
(Drain hose)
Front view

Model: ARXH096

Side view (L)   Top view   Side view (R)
(Drain hose)
Front view
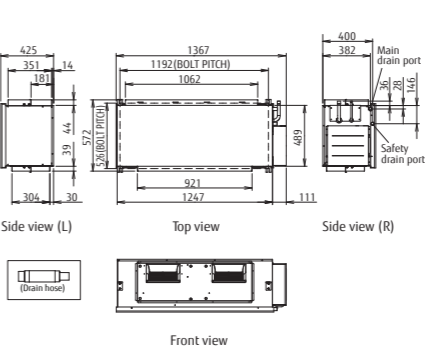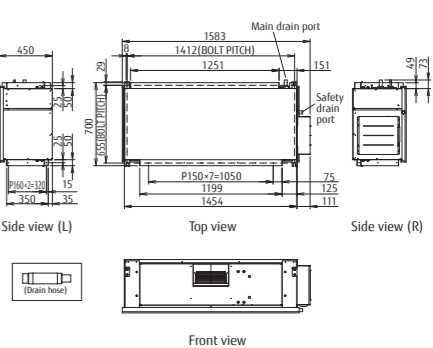
DX Kit for Air Handling Unit or Fresh Air Handling Unit application

Models

Control unit
UTY-VDGX

EEV unit
UTP-VX30A
UTP-VX60A
UTP-VX90A

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

Control unit
UTY-VDGX

EEV unit
UTP-VX30A

EEV unit
UTP-VX60A

EEV unit
UTP-VX90A

Feature

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

AHU   Thermistor

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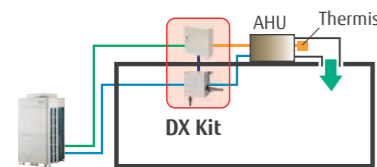
When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

FCU

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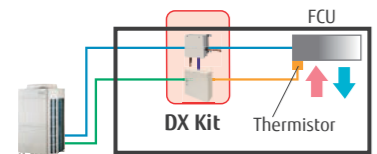
When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.

Arrangement as part of a VRF system

Transmission line

Indoor unit

VRF system

Air Handling Unit

Control unit

EEV unit

DX Kit

Wired R.C.

Thermistor
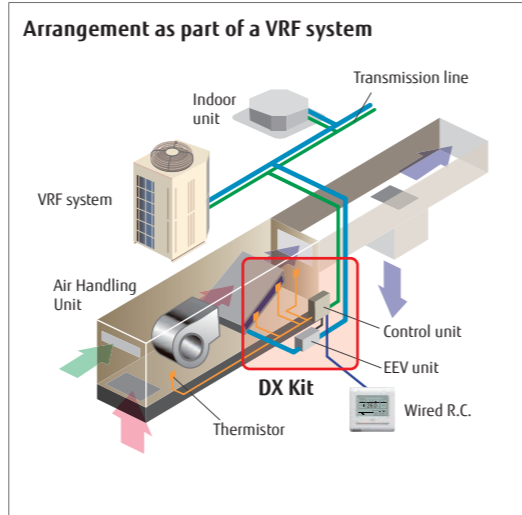
Supports a wide range of capacity classes

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

EEV unit

Piping

EEV unit

AHU or FCU (40 – 50 kW class)

Wiring   Control unit
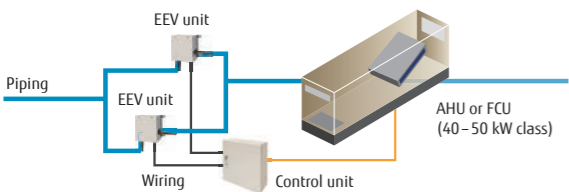
A variety of controls to match the application

• Central control using our VRF controllers or central management controllers

Transmission line

External I/O

Interface (Option)

DX Kit

Thermistor

VRF Controller   Modbus network

AHU or FCU
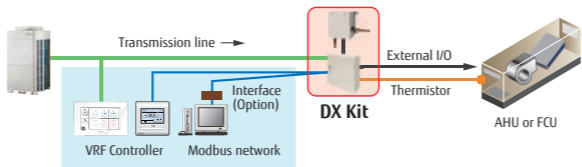
• Central control from external controllers

Transmission line

DDC*

Thermistor

External I/O

DX Kit

External I/O

3rd party Controller

AHU or FCU
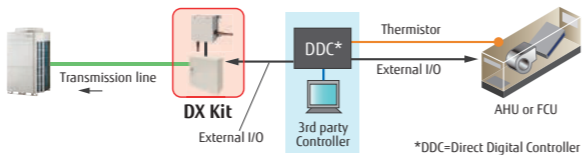
*DDC=Direct Digital Controller

Functions Summary

Inputs

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

Outputs

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

Modbus Control

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

Installation Limitation

• Connectable VRF Series : All VRF
• Connectable DX Kit system capacity range : 50 to 100% of the outdoor unit capacity
• Connectable DX Kit system capacity range with AHU or FCU : 30% or less of the outdoor unit capacity (Mixed connection)
• Max. wiring length from control unit : 10 m
• Max. piping length between EEV unit and indoor unit : 5 m
• Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.

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

Connectable capacity

• Single connection

DX KIt

Air Handling Unit

50 – 100% of outdoor unit capacity

• Mixed connection

DX KIt

Air Handling Unit
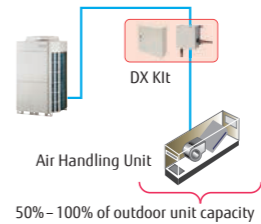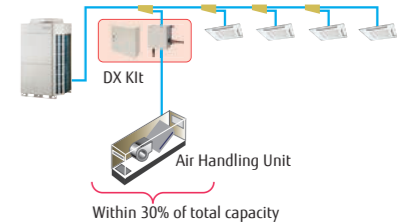
Within 30% of total capacity

50 – 100% of outdoor unit capacity

Piping and wiring length

Air Handling Unit   EEV unit

Max. piping length 5 m

Max. wiring length 10 m   Control unit

Max. wiring length 10 m
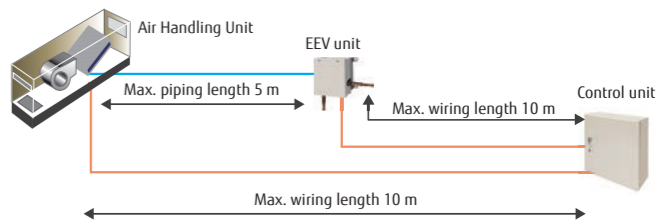
Specifications

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 (7.2-9.0)	10 (9.1-11.1)	12.5 (11.2-13.2)	14 (13.3-18.0)	22.4 (18.1-23.7)	25 (23.8-28.0)	40 (28.1-44.7)	50.4 (44.8-50.4)
	Heating		6.3 (5.7-6.7)	7.1 (6.8-8.0)	9 (8.1-10.0)	11.2 (10.1-12.4)	14 (12.5-15.0)	16 (15.1-20.0)	25 (20.1-26.5)	28 (26.6-31.5)	45 (31.6-49.9)	56.5 (50.0-56.5)
Airflow Rate(Reference value)	m³/h		1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000
Dimensions (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].

AIRSTAGE™ OPTION

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

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

Pressure Sensor Kit

Auto Louver Grille Kit

CONTROL SYSTEM LIST

OPTIONAL PARTS LIST

OPTIONAL PARTS

FUNCTION LIST

SEPARATION TUBE etc.

AIRSTAGE

Pressure Sensor Kit

Models
UTY-SPWX

Features

Design Flexibility

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

Total pipe length
1,000 m maximum

Actual pipe length
165 m maximum

Height difference
50 m maximum

Pipe length (First separation tube to farthest indoor unit)
90 m maximum

Height difference between indoor units
15 m maximum

Total pipe length
1,000 m maximum

Height difference
110 m maximum

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

Actual pipe length
165 m maximum

Pipe length (First separation tube to farthest indoor unit)
90 m maximum

Height difference between indoor units
15 m maximum

System Over View

Outdoor unit (V- III Series)
Transmission
Pressure Sensor Kit **UTY-SPWX**
Convertor
Pressure Sensor
The lowest Indoor unit
Refrigerant piping
50 m to 110 m
10m or less

Pressure Sensor Kit

Pressure sensor kit (Convertor)	
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

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

Closed louver   Opened louver
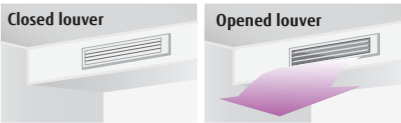
Feature

Flexible Control

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

• **UP and Down auto swing**
• Auto airflow direction and auto swing
• 4 steps selectable

• **Auto-closing louver**
When operation of indoor unit is stopped, the louver will automatically close.

Duct type
Auto Louver Grille
Wired Remote Controller
Wireless Remote Controller

Dimensions

W2
Fitting Flame
Grille
H1
H2
W1
D1 D2
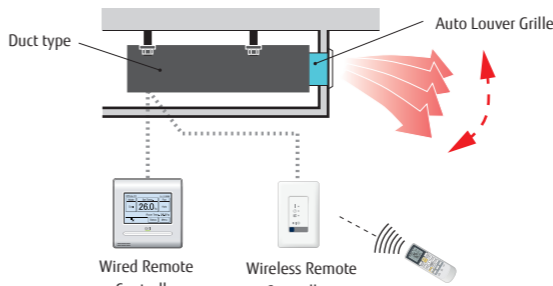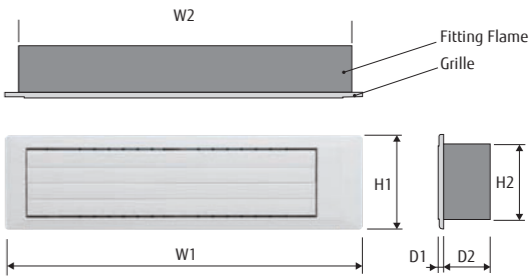
Unit: mm

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			ARXD07/09/12/14GALH ARXD07/09/12/14GATH ARXK07/09/12/14GCLH ARXK07/09/12/14GALH	ARXD18GALH ARXD18GATH ARXK18GCLH ARXK18GALH	ARXD24GALH ARXD24GATH ARXK24GCLH ARXK24GALH
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	°C	18 to 32		
		% RH	80% or less		
	Heating	°C	16 to 30		
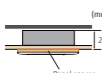
*: The Auto Louver Grille Kit can also be installed to ARXD07/09/12/14/18/24LATH revision code B models. Please refer to the Design & Technical manual for "revision code " details.

CONTROL SYSTEM LIST

Controllers / Interface

		Indoor unit										Indoor unit				
		Cassette			Duct				Duct					Wall Mounted		
Type		4-way Compact	4-way	Circular Flow	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Static Pressure		Ceiling / Floor	Ceiling	−	EEV external	−
		AUXB 07/09/12/14/18/24 GALH, AUXB 09/12/14/18/24 GATH	AUXD 18/24GALH / AUXA 18/24/30/34/36/45/54 GALH	AUXM 018/024GTAH / AUXK 018/024/030/034/036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH	ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH	ARXC 45/60/72/90 GATH			ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH

Controllers

Item	Model
Wired Remote Controller	UTY-RNRGZ3
Wired Remote Controller	UTY-RLRG
NEW Compact Wired Remote Controller	UTY-RCRGZ1, UTY-RCRGZ1K
Simple Remote Controller (2-wire type / 3-wire type)	UTY-RSRG, UTY-RHRG, UTY-RSKG, UTY-RHKG
Wireless Remote Controller	UTY-LNHG
NEW Central Remote Controller	UTY-DCGGZ1
System Controller, System Controller Lite	UTY-APGXZ1, UTY-ALGXZ1
IR Receiver Unit	UTY-LRHGB1 / UTY-LBHXD / UTB-YWC / UTB-YWC

Interface

Item	Model
BACnet Gateway	UTY-ABGXZ1, UTY-VBGX
Network Convertor for LonWorks	UTY-VLGX
MODBUS Convertor	UTY-VMGX
MODBUS Interface	FJ-RC-MBS-1 / FJ-RC-MBS-1 / FJ-RC-MBS-1 / FJ-RC-MBS-1 (ARXC45/60/72/90/96GATH only) / FJ-RC-MBS-1
KNX Convertor	UTY-VKGX
KNX Interface	FJ-RC-KNX-1i / FJ-RC-KNX-1i / FJ-RC-KNX-1i / FJ-RC-KNX-1i (ARXC45/60/72/90/96GATH only) / FJ-RC-KNX-1i
Wireless LAN Interface	FJ-RC-WIFI-1 / FJ-RC-WIFI-1 / FJ-RC-WIFI-1 / FJ-RC-WIFI-1 (ARXC45/60/72/90/96GATH only) / FJ-RC-WIFI-1
External Switch Controller	UTY-TERX
Network Convertor for single split (DC Power Supply Type / AC Power Supply Type)	UTY-VTGX, UTY-VTGXV
Thermostat convertor	UTY-TTRX

OPTIONAL PARTS LIST

Others
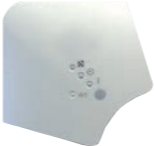
Type		Indoor unit											Indoor unit		Wall Mounted			Outdoor unit
		Cassette				Duct				Duct			Ceiling / Floor	Ceiling				V-III Tropical
		4-way Compact	4-way		Circular Flow	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Static Pressure					–	EEV external	–	
		AUXB 07/09/12/14/18/24 GALH, AUXB 09/12/14/18/24 GATH	AUXD 18/24GALH	AUXA 18/24/30/34/36/45/54 GALH	AUXM 018/024GTAH	AUXK 018/024/030/034/036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH	ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH	ARXC 45/60/72/90 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH	AJH 072/090/108/126/144/162 LN✽✽H
Others	Human Sensor Kit				UTY-SHZXC													
	Remote Sensor Unit	New amenity space can be offered by installing the Remote sensor.					UTY-XSZX			UTY-XSZX								
	Cassette Grille	UTG-UFGC-W / UTG-UGGA-W / UTG-UKGD-W / UTG-UKGA-B	UTG-UFGC-W	UTG-UGGA-W		UTG-UKGD-W UTG-UKGA-B												
	Auto Louver Grille Kit					UTD-GXTA-W UTD-GXTB-W(18) UTD-GXTC-W(24)			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 UTG-AGYA-W		UTG-AKXA-W													
	Panel Spacer		UTG-BKXA-W UTG-BGYA-W		UTG-BKXA-W													
	Air Outlet Shutter Plate	For Compact Cassette / For Cassette / UTR-YDZB	UTR-YDZK		UTR-YDZK													
	Insulation for High Humidity	For Compact Cassette type / Cassette type / UTZ-KXGC	UTZ-KXRA		UTZ-KXRA													
	Pressure Sensor Kit for V-III Series*																	UTY-SPWX

AJH__LN✽✽H : AJH__LNTDH, AJH__LNLCH

OPTIONAL PARTS

Controllers

For Individual Control
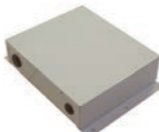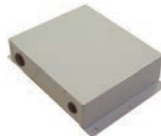
Wired Remote Controller (Touch Panel) UTY-RNRGZ3	Wired Remote Controller UTY-RLRG	Compact Wired Remote Controller NEW UTY-RCRGZ1
Compact Wired Remote Controller NEW UTY-RCRGZ1K	Simple Remote Controller UTY-RSRG With operation mode	Simple Remote Controller UTY-RHRG Without operation mode
Wireless Remote Controller UTY-LNHG	IR Receiver Unit UTB-YWC For All Duct types except Large Airflow Duct	IR Receiver Unit UTY-LRHGB1 For Cassette type
IR Receiver Unit UTY-LBHXD For Circular Flow Cassette type	Human Sensor Kit UTY-SHZXC For Circular Flow Cassette type	

For Centralized Control
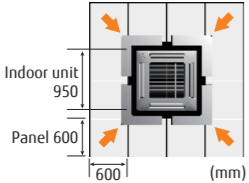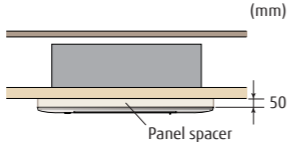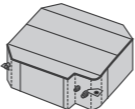
Central Remote Controller NEW UTY-DCGGZ1	System Controller Lite Software UTY-ALGXZ1 WHITE-USB-KEY (Software Protection Key) Option UTY-PLGXR2 UTY-PLGXA2 UTY-PLGXE2 UTY-PLGXX2	System Controller Software UTY-APGXZ1 WHITE-USB-KEY (Software Protection Key) Option UTY-PEGXZ1
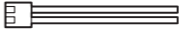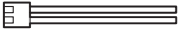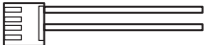
Convertors / Adaptors

For External device / System expansion

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

OPTIONAL PARTS

Panels

For Cassette type

Cassette Grille
UTG-UFGC-W
For Compact Cassette type

Cassette Grille
UTG-UGGA-W
For Cassette type

Cassette Grille
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

Indoor unit 950
Panel 600
600 (mm)

Panel Spacer
UTG-BGYA-W
For Cassette type

(mm)
50
Panel spacer

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   UTD-LF60KA
For Medium Static Pressure Duct type   **For High Static Pressure Duct type**

Auto Louver Grille Kit
UTD-GXTA-W (for ARXD07/09/12/14, ARXK07/09/12/14)
UTD-GXTB-W (for ARXD18, ARXK18)
UTD-GXTC-W   (for ARXD24, ARXK24)
For Slim Duct type / Mini 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

		Indoor unit										Indoor unit						Outdoor unit		Controller
		Cassette				Duct				Duct		Ceiling / Floor	Ceiling	Wall Mounted				J-III Tropical	V-III Tropical	Central Remote Controller
Type		4-way Compact	4-way		Circular Flow	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Static Pressure	High Static Pressure			–	EEV external	–				
		AUXB 07/09/12/14/18/24 GALH, AUXB 09/12/14/18/24 GATH	AUXD 18/24GALH	AUXA 18/24/30/34/36/45/54 GALH	AUXM 018/024GTAH	AUXK 018/024/030/034/036/045/054 GTAH	ARXK 07/09/12/14/18/24 GCLH	ARXK 07/09/12/14/18/24 GALH	ARXD 07/09/12/14/18/24 GALH, ARXD 07/09/12/14/18/24 GATH	ARXA 24/30/36/45 GBLH, ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH, ARXC 96GATH	ARXC 45/60/72/90 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH, ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH, ASHA 18/24/30 GATH	AJH 040/045/054 LBTBHN, AJH 040/045/054 LETBHN	AJH 072/090/108/126/144/162 LNTDH	UTY-DCGGZ1

Input

Function																				
Operation / Stop	●UTY-XWZXZD ○UTY-XWZXZB (across Cassette/Duct)											●UTY-XWZXZD ○UTY-XWZXZB (across Ceiling/Wall)								
All On / All Off																				●UTY-XWZXZ7 ○UTY-XWZXZ8
Batch 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

Function																				
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					●UTY-XWZXZC									
Base Heater																				●UTY-XWZXZ9

● : Dry Contact   ○ : Apply Voltage

SEPARATION TUBE etc.

Connection Units

Separation Tube

UTP-AX054A	UTP-AX090A	UTP-AX180A
Gas Pipe	Gas Pipe	Gas Pipe
Liquid Pipe	Liquid Pipe	Liquid Pipe

UTP-AX567A	UTP-LX180A for DX Kit	
Gas Pipe		
Liquid Pipe		

Header

UTR-H0906L / UTR-H1806L	UTR-H0908L / UTR-H1808L	
Gas Pipe	Gas Pipe	
Liquid Pipe	Liquid Pipe	

Outdoor Unit Branch Kit

UTP-CX567A		
Gas Pipe		
Liquid Pipe		

EV Kit

Model code ≦ 09 : UTR-EV09XB

Model code ≧ 12 : UTR-EV14XB

For Compact Wall Mounted type

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

EV Kit

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

Reducer kit

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

SUPPORT

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

AIRSTAGE™ SUPPORT

AIRSTAGE™ / RAC SUPPORT TOOL

QUICK SERVICE & MAINTENANCE

SERVICE TOOL

WEB MONITORING TOOL

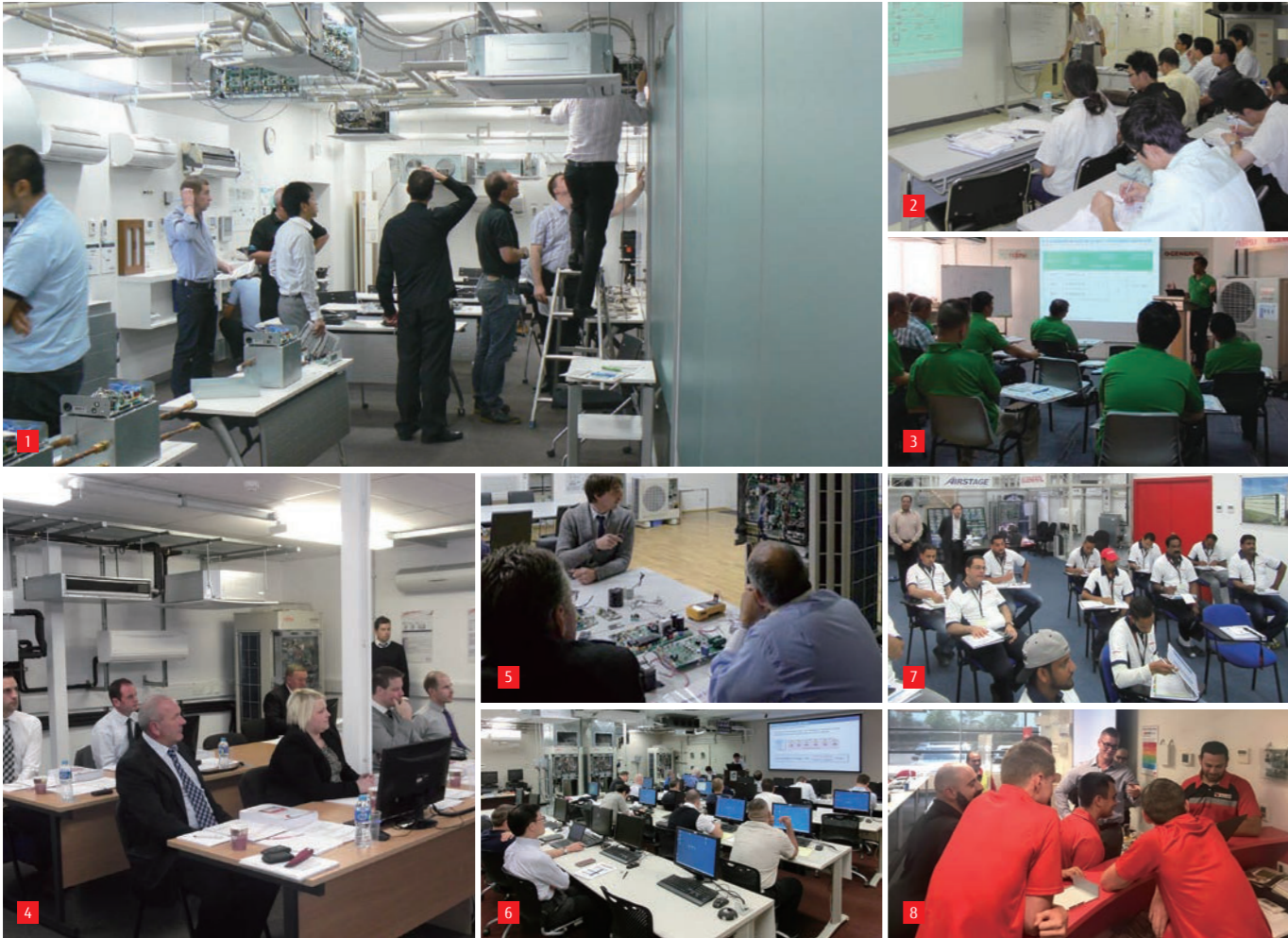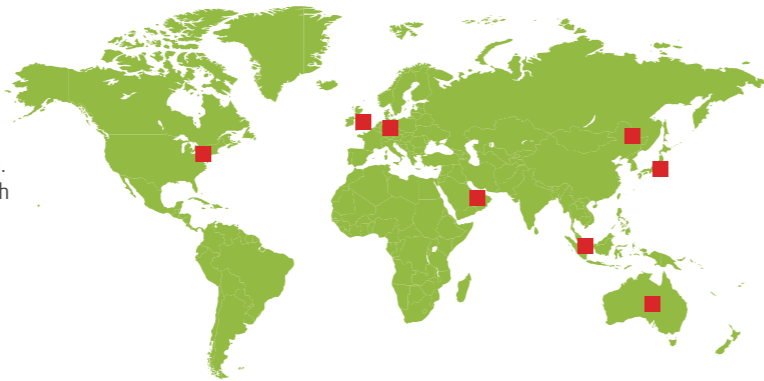| Category	Information Material												Tool			
	Product Sales Training Material	Product Technical Training Material	Product news	Brochures	Feature Promotion Movie	Operating Manual	Design & Technical Manual	Certificate Data	2D CAD Data	3D CAD (Revit) Data	Installation Manual	Service Manual	Design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

AIRSTAGE™ SUPPORT

Fujitsu General provides a variety of product and technical information to engineers and consultants, and also conducts new product research and design support activities.
We provide a wide range of support to maintain high quality from design to installation.

Training

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

Features

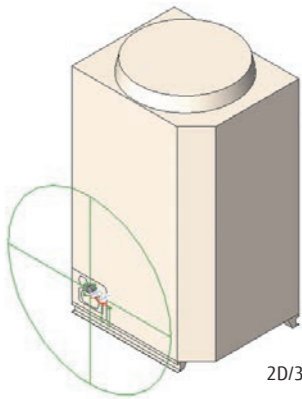- Designing AIRSTAGE™ Systems
- Control System on-site training

Technical information

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

Features

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

2D/3D CAD Data

Product information

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

Features

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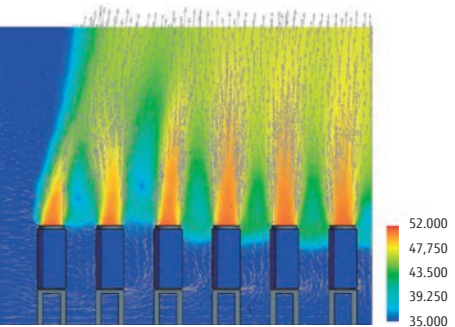- Feature Promotion Movie

www.fujitsu-general.com/uk/support/downloads/vrf/

Technical support

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

Features

- CFD Simulation
- Guide line
- Commissioning Support

CFD Simulation

52.000
47.750
43.500
39.250
35.000

Commissioning Support

1 Head Office Training Center: Japan
2 China Training Center: China
3 Asia Training Center: Singapore
4 Europe Training Center: U.K.
5 Europe Training Center: Germany
6 America Training Center: U.S.A.
7 Middle East Training Center: UAE
8 Oceania Training Center: Australia

AIRSTAGE™ /RAC SUPPORT TOOL

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

Design Simulator

### Automatically create model selection information

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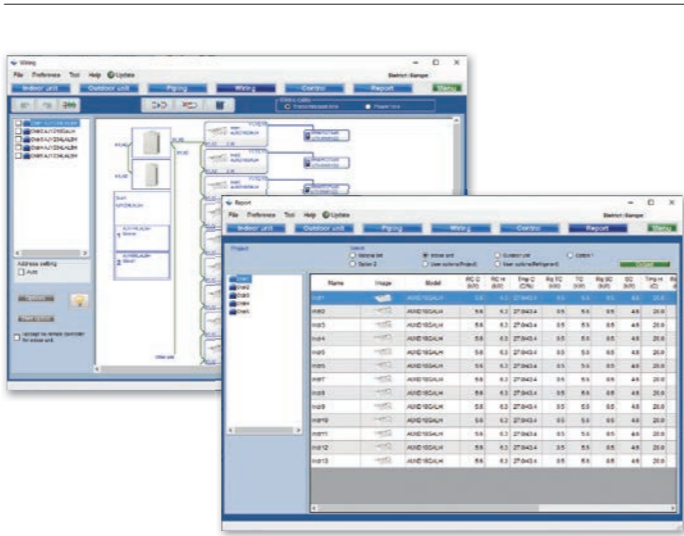
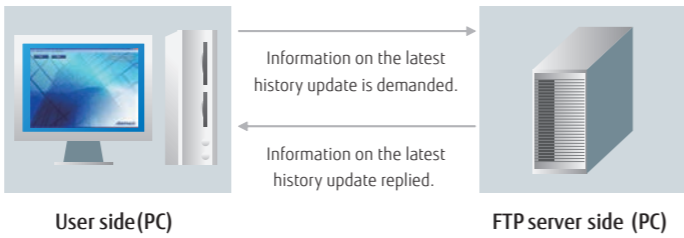### Output the format that matches the application

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

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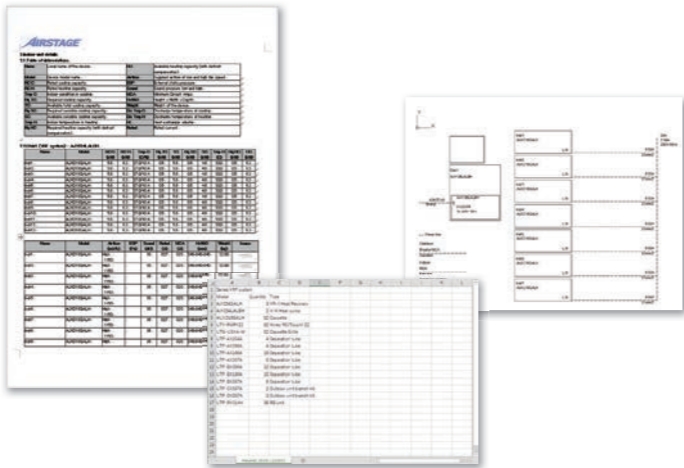
Update your Design Simulator

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

Information on the latest history update is demanded.

Information on the latest history update replied.

User side (PC)　　　　　　FTP server side (PC)

## NEW BIM (Building Information Modeling)

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

We are pleased to inform that Fujitsu General has released BIM files of products on BIMobject®'s 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 biggest BIM platform.

About the BIM file

- BIM files are Autodesk Revit 2018 version.
- Each of the BIM files has different refrigerant and drain piping connector location.
- Each of the BIM file includes several family types.
- Revit file type catalog (Specification) is available for every product.

www.bimobject.com/en
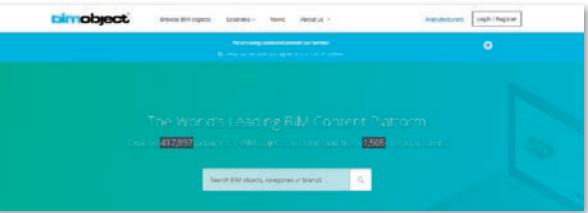
Go to search bar and key in the brand name FUJITSU GENERAL to search the products

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

Data content
- Shape (Size)
- Drain direction
- Piping direction
- Power source location
- Specifications etc.

Type catalog (specifications of product)

DWG
Standard data available for Autodesk's products.

DXF
Intermediate data generally available for CAD products.

Data content
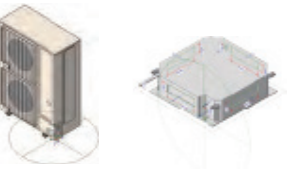- Shape (Size)

*How to use the BIM files please refer to Instruction 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.

Mobile troubleshooting tool for iPhone & Android

We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products and Android products. This application is a troubleshooting tool for Fujitsu General air conditioner (Room air conditioner / Packaged air conditioner, VRF, ATW, "FGLair", R32 calculation of allowable refrigerant capacity)
It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.

Mobile Technician FREE

Service Monitoring Tool for Single Split, Multi-split & Air to Water

• Quick overview about temperature sensor readings and controlled parts like EEV, Fan, Compressor and so on.
• It is not easy to judge the point. So it would be better to delete it.
• Visualization of protection operation
• Helpful for intermittent troubleshooting
• Proof of normal operation for the customer during periodical maintenance.

Actual operating condition display　　Graph display　　Operation history display

|	UTY-ASSX
Dimensions (H×W×D) (mm)	60 x 160 x 160
Weight (g)	500

Easy maintenance & monitoring

Design for easy maintenance

Design for easy maintenance
The air conditioner operating status and trouble status of the detailed are displayed at the 7-segment of the outdoor unit PCB or on the remote controller screen.
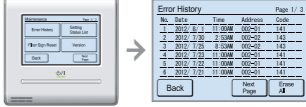The unit status can be checked rapidly and quick response is also possible.

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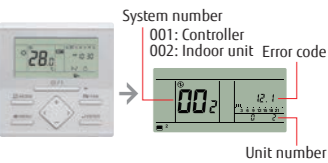• Error code.

7-segment LED
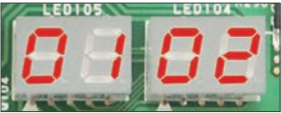
Wired Remote Controller (Touch panel)
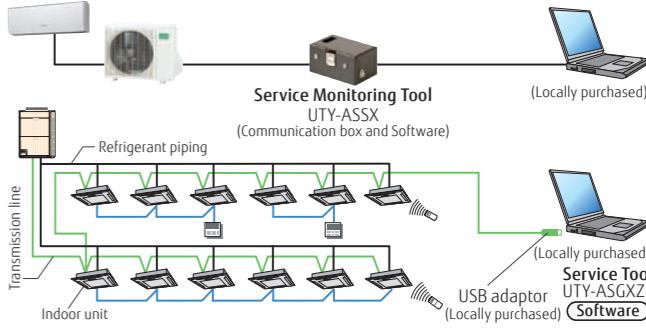Error status/Error history

Wired Remote Controller
System number
001: Controller
002: Indoor unit　Error code
Unit number

### Error diagnosis by Service Tool

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

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

Service Monitoring Tool
UTY-ASSX
(Communication box and Software)
(Locally purchased)

Refrigerant piping

Transmission line

Indoor unit

USB adaptor
(Locally purchased)

(Locally purchased)
Service Tool
UTY-ASGXZ1
Software

Remote monitoring

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

Internet
or
Public Telephone
Line

Remote Monitoring
Web
Monitoring
Tool
UTY-AMGXZ1
Software
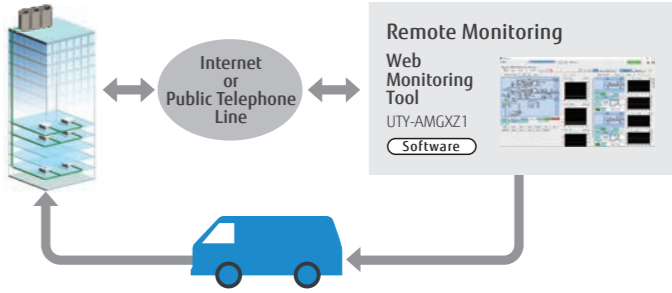
SERVICE TOOL

UTY-ASGXZ1

Extensive monitoring and analysis functions for installation and maintenance

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

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

Functions

System Over View

VRF System

Service Tool
(UTY-ASGXZ1)

Monitoring Side

Internet

— : Transmission line
— : Refrigerant piping

USB adaptor
(Locally purchased)
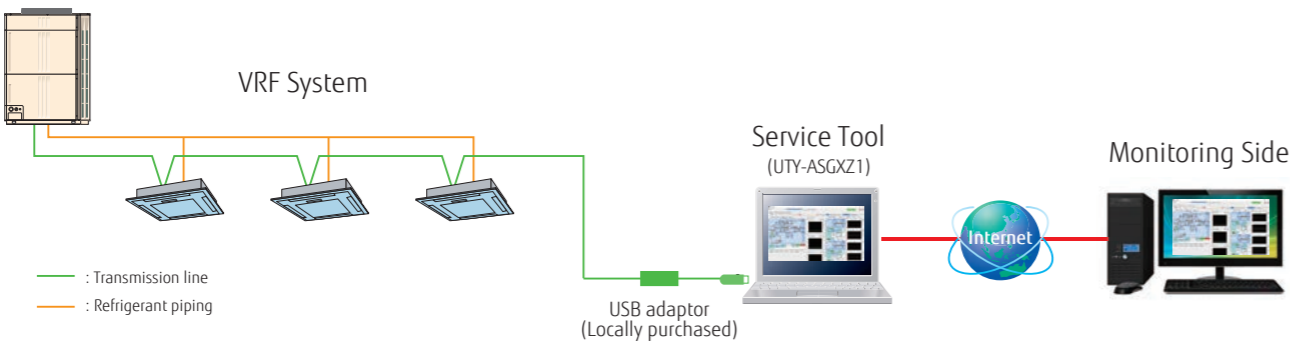
Automatic operation check for refrigeration cycle

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

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

Whether each sensor value is normal is judged automatically.

☑ Discharge temperature normal value OK
☑ Super heat volume normal value OK
☑ High pressure pipe normal value OK
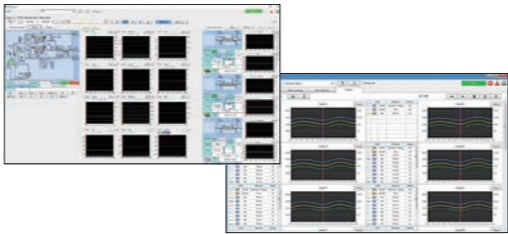☑ Low pressure pipe normal value OK
...etc.

Remote technical support & maintenance

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

Distant place

An error occurs at local system.

⚠ ERROR

Internet

Technical support
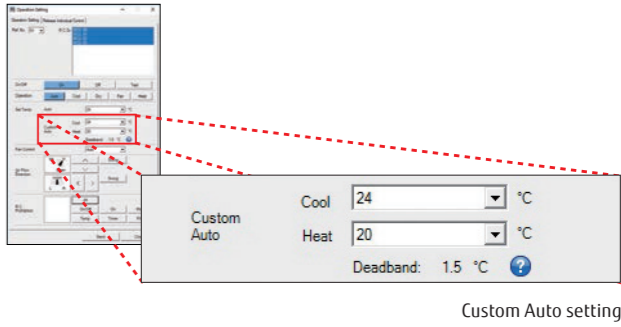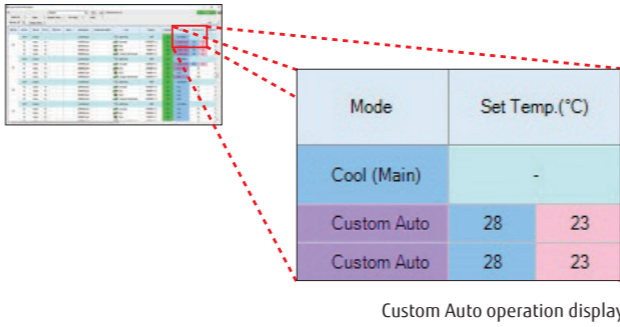
Installer / Administrator
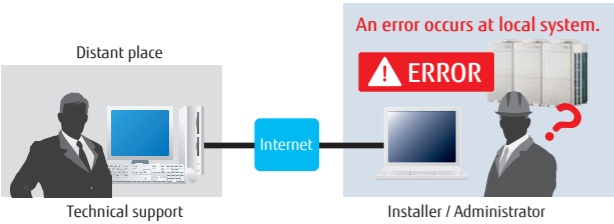
Various trend graph display

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

NEW Custom Auto Function

Mode	Set Temp.(°C)	
Cool (Main)	-	
Custom Auto	28	23
Custom Auto	28	23

Custom Auto operation display

Custom Auto	Cool	24	°C
	Heat	20	°C
	Deadband:	1.5	°C

Custom Auto setting

Function summary

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

Personal computer system requirements

	UTY-ASGXZ1
Operating system	• 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
Display	1366 x 768 or higher resolution
Interface	• USB port for U10 USB Network Interface and Software protection key
Software	Internet Explorer® 11 or Microsoft Edge

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

<PACKING LIST>

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

•Personal computer that satisfies the following system requirements


WEB MONITORING TOOL

UTY-AMGXZ1

Product features

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

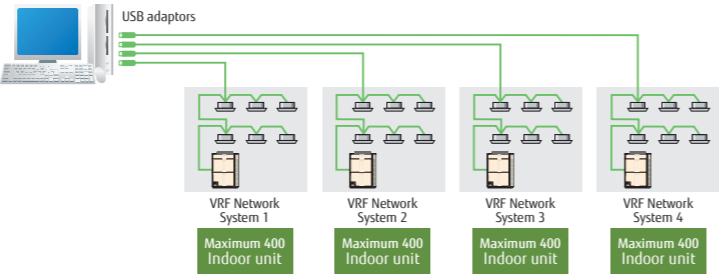*1: Use of internet mail system required.
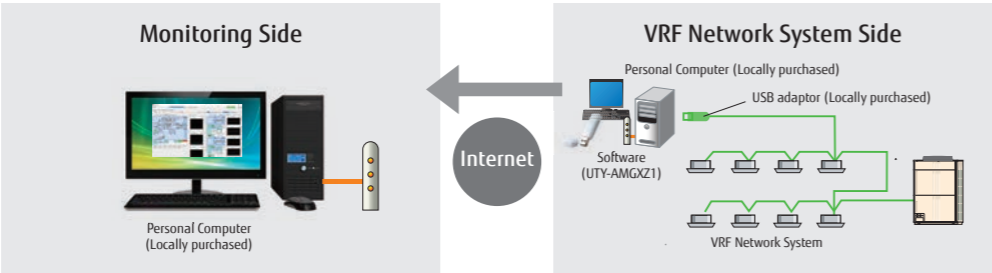
Functions

Web Monitoring System
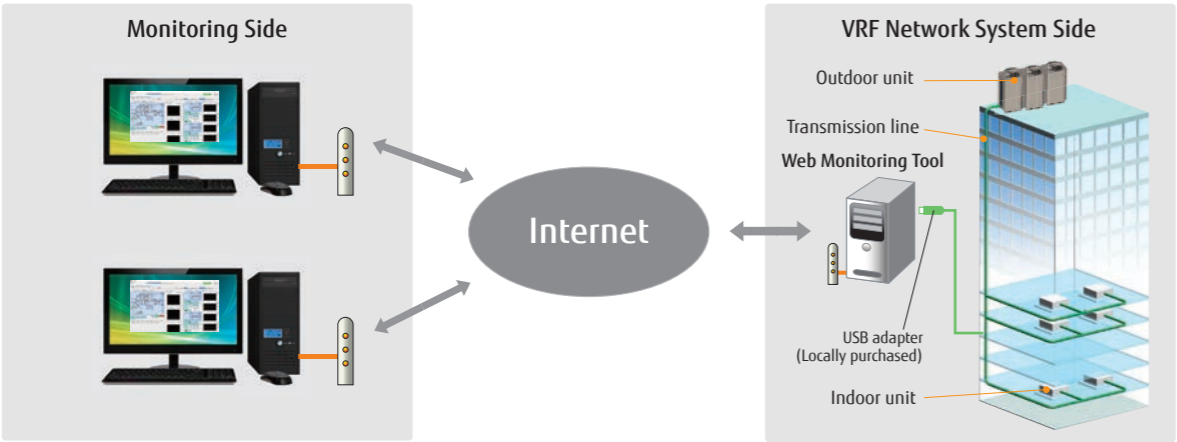
Support 4 VRF network systems

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

System components

NEW Custom Auto Function

Mode	Set Temp.(°C)
Cool (Main)	-
Custom Auto	28	23
Custom Auto	28	23

Custom Auto operation display

Custom Auto setting

Function summary

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

Personal computer system requirements

	UTY-AMGXZ1
Operating system	• Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 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
Display	1366 x 768 or higher resolution

Interface	• USB port (for 10 USB Network Interface maximum 4, Software protection key)
	• Either of the following interface is required for remote connection:
	  - Public Telephone Line: Modem is required
	  - Internet using LAN: Ethement port is required

Software	Internet Explorer® 11 or Microsoft Edge

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

<PACKING LIST>

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

•Personal computer that satisfies the following system requirements