# FUJITSU

HEAT PUMP
# VRF CATALOGUE
Variable Refrigerant Flow System

HEAT PUMP
# VRF CATALOGUE
Variable Refrigerant Flow System

REFRIGERANT R410A

INVERTER

HEAT PUMP VRF CATALOGUE

FUJITSU GENERAL AUSTRALIA

OUR MESSAGE

SOLUTIONS

CORE TECHNOLOGY

AIRSTAGE™ SERIES

INDOOR UNITS

VENTILATION

CONTROL SYSTEMS

OPTION

SUPPORT

Fujitsu General (Thailand) Co., Ltd.

TÜV
ISO 9001
01 100 075229
ISO 14001
01 104 9245

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

Fujitsu General (Shanghai) Co., Ltd.

TÜV CERT
DIN EN ISO 9001
Certificate: 01 100 79269

ISO 14001
BUREAU VERITAS
Certification

UKAS
MANAGEMENT
SYSTEMS

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

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

CNAS
MANAGEMENT SYSTEM

IAF

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

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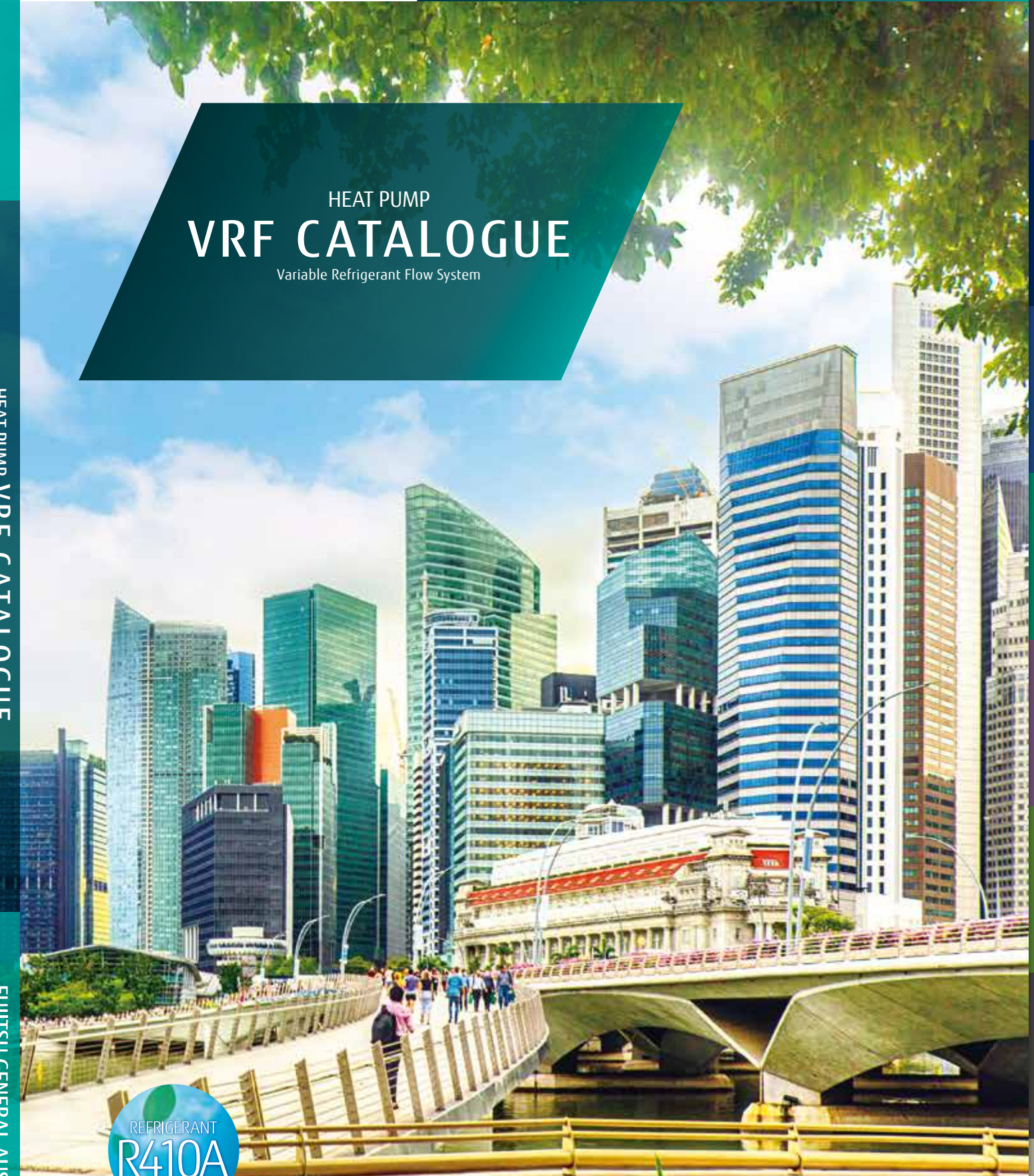www.fujitsu-general.com
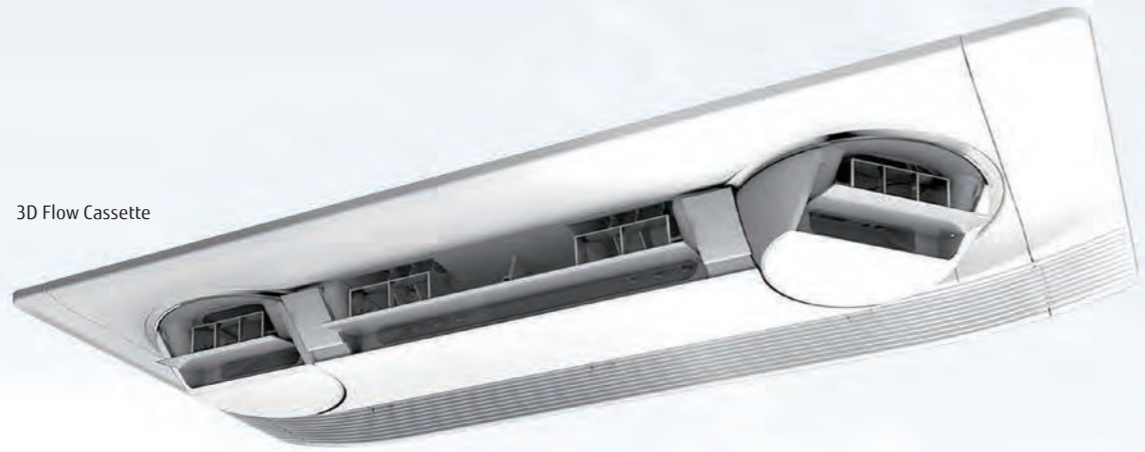
# FUJITSU GENERAL LIMITED

OUR MESSAGE

SOLUTIONS

CORE TECHNOLOGY

VRF SERIES

INDOOR UNITS

VENTILATION

CONTROL SYSTEMS

OPTION

SUPPORT

3D Flow Cassette

## The VRF Series provides high energy savings, comfort, and reliability to the end user.

The design, installation, and servicing were developed based on the concepts of high flexibility and simplicity.
We offer an abundant VRF system lineup to match regional and customer needs by providing the best combination from low to high capacities and from giving priority to conserving installation space to giving priority to high efficiency.

# DESIGN for COMFORT

VRF V-III
8 HP model

VRF J-IIIL
14/16/18 HP model

## Contents

### For Light Commercial

VRF **J-IIIL**

Heat Pump type
for heating or cooling operation
8 HP - 12 HP 3 Models
14 HP - 16 HP & 18 HP 3 Models/3 phase

VRF **J-III**

Heat Pump type
for heating or cooling operation
4 HP - 6 HP 6 Models/Single phase, 3 phase

VRF **J-IIS**

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

### For Commercial

VRF **V-III**
VRF **V-III** Tropical **TROPICAL SPEC**
**Production by order**

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

3

# OUR HISTORY

## Overseas Air Conditioning Business since 1971
1960: Air conditioning business starts. Japan-domestic business starts.

**1971** Air conditioner exports to the Middle East.

**1977** "Super Power, Super Quiet" Series released

**1982** Window type 3 Super Series released

**AL/AX Series**

**1985** Large wall-mounted type and multi-split air conditioner released.
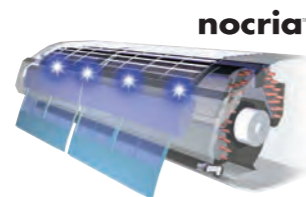
**WORLD'S FIRST** *1,*2 **1991** World's first air conditioner equipped with lambda heat exchanger

**1994** World's first air conditioner with power diffuser

**2001** AIRSTAGE Series released VRF air conditioners for large buildings

**AIRSTAGE**

**WORLD'S FIRST** *3 **2002** Air conditioner with the world's first automatic self-cleaning filter system

**nocria**

**2004** Standalone Compact VRF AIRSTAGE J Series released

**AIRSTAGE J**

**2006** VRF Heat Pump type Maximum 42 HP AIRSTAGE V Series released

**AIRSTAGE V**

**2009** VRF Heat Pump Modular type Maximum 48 HP AIRSTAGE V-II Series released

**2009** Air to water system released

**WATERSTAGE**

### For Light commercial use

**2011** High energy-saving type AIRSTAGE J-II Series released

**2014** Compact & lightweight outdoor unit AIRSTAGE J-IIS equipped with a single fan for improved ease of installation

**2016** Compact VRF AIRSTAGE J-III Series with advanced energy efficiency and easy installation released

**2017-19** Compact VRF AIRSTAGE J-IIIL Series for light commercial use released

**2020** Compact & lightweight outdoor unit AIRSTAGE J-IVL, J-IV, J-IVS Series released
— — — — — — — — — — — — — — — — — —

**WORLD'S FIRST** *4

**2019** New cassette style released 3D Flow Cassette

### For Commercial use

**2012** Heat Recovery Modular type AIRSTAGE VR-II Series Maximum 48 HP released

**2014-15** Heat Pump Modular type AIRSTAGE V-III Series Maximum 54 HP for large buildings released

**2020** Heat Recovery type AIRSTAGE VR-IV Series Maximum 48 HP released
— — — — — — — — — — — — — — — — — — — — — — — — — —

**2020** AIRSTAGE Air handling unit released

### For Residential use

**2011** Hi-spec Design model LT Series & LU Series released

**2017** Flagship Wall-mounted type "nocria X" released

**2017-19** Added to this lineup recently are the environment-friendly R32 refrigerant models. (Split & Multi-split type)

**WORLD'S FIRST** *5

**nocria X**

**AIRSTAGE**

## "Experience beyond expectations"
Introducing AIRSTAGE, a unified global product brand representing lightness, freedom, and airness, ...the Fujitsu General air conditioning experience.

### For Residential use

**R32** Split for Singapore
New products released with Wall- mounted and Cassette

**R32** Split for Common Models
New products released with Cassette, Duct and Ceiling

| 1950 ~ | 1970 ~ | 2000 ~ | 2010 ~ | 2023 What's New |
|---|---|---|---|---|

## Manufacturing Company Establishment

**1955** Head Office established in Kawasaki

**1964** Electronic components factory in Ichinoseki

**1977** Air conditioner manufacturing company in Hamamatsu (now Hamamatsu business office)

**1991** Air conditioner manufacturing company in Thailand

**1994** Air conditioner manufacturing company in Shanghai, China

**1998** Air conditioner motor manufacturing company in Thailand

**2006** VRF air conditioner manufacturing, sale, and service company in China

**2007** Air Conditioner Technology Building becomes operational on the premises of the Kawasaki Headquarters. Air conditioner R&D Center in Kawasaki

**2009** Compressor Factory begins operation in Thailand

**2012** Joint venture in Thailand to manufacture compressors

**2016** Commercial use air conditioner R&D Center in Thailand

**2019** New building constructed at Kawasaki Head Office to strengthen development capabilities:
Base for creating new value by combining internal and external knowledge

**2020** Building IoT-based manufacturing

Implementing a real-time IoT system to instantly visualize and analyze various information

## Sales & service maintenance company established

**1976** North America sales company

**1977** Europe sales company (UK)

**1978** Australia sales company and Europe sales company (Germany)

**1980** Brazil sales company

**1997** Asia sales company (Singapore)

**1998** Middle East sales company (UAE) and New Zealand sales company

**2000** Air conditioner manufacturing and sale technical partnership in India

**2002** Taiwan sales company

**2006** China sales company

**2016** THE AIRSTAGE on Broadway in New York
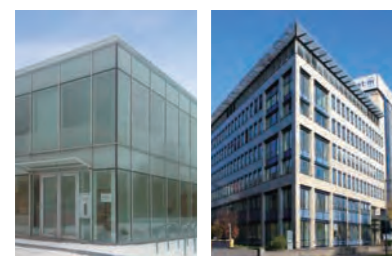
Fujitsu General (UK) Co., Ltd. (UK)

Fujitsu General (EURO) GmbH

THE AIRSTAGE ON BROADWAY
Fujitsu General Solution Center

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

*1: Announced 1991. In room air conditioner for the home (Our company's investigation) *2: Announced 1994. In the category of room air conditioners for the home (Our company's investigation).
*3: Announced 2002. In the category of room air conditioners for the home (Our company's investigation).

*4: Announced 2018. In room air conditioner for the home (Our company's investigation) *5: Announced 2012. In room air conditioner for the home (Our company's investigation).

# WORLD WIDE LOCATIONS

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

**JAPAN Head Office**

**Technology research building (Japan)**

## 15 Overseas Sales Companies

- Fujitsu General Air Conditioning (UK) Ltd.
- Fujitsu General Electronics (Suzhou) Co., Ltd.
- 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 America, Inc.
- Fujitsu General Limited
- Fujitsu General Do Brasil Ltda.
- Fujitsu General (Taiwan) Co., Ltd.
- Fujitsu General (Thailand) Co.,Ltd. Bangkok Office
- Fujitsu General (Aust.) Pty Limited
- Precise Air Group (Holding) Pty Ltd.
- Fujitsu General New Zealand Ltd.
- ABS Aircon Engineers Private Ltd.
- Fujitsu General (India) Private Ltd.
- Fujitsu General (Middle East) FZE
- Fujitsu General (Asia) Pte. Ltd.

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

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

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

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

Fujitsu General (EURO) GmbH (Germany)

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

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

Fujitsu General (India) Private Ltd. (India)

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

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

Fujitsu General New Zealand Ltd. (New Zealand)

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

ABS Aircon Engineers Private Ltd. (India)

Fujitsu General Do Brasil Ltda. (Brasil)

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

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

# GLOBAL BUSINESS ACTIVITIES

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

## Asia


Thanksgiving party in Taiwan
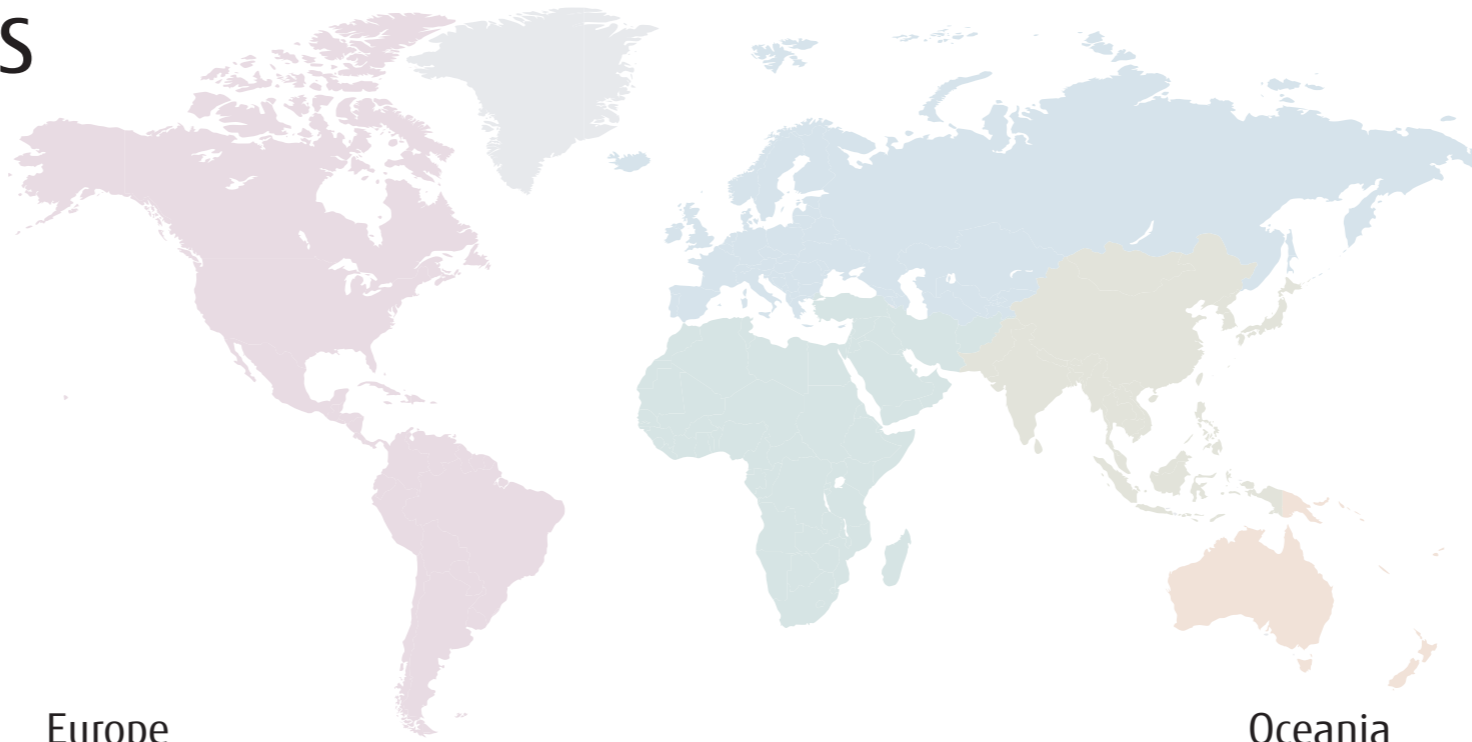

Training in India

## North and South Americas


AHR Expo


HVAC trade shows in Brazil
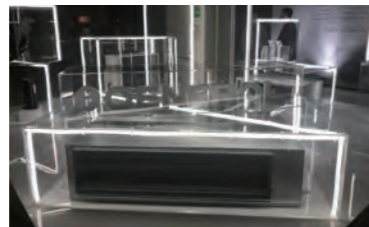

Distributor conference in USA


Call center

## Middle East


Exhibition


Training in Kuwait


Technical seminar


New product seminar in UAE

## Europe


HVAC trade show in Germany


HVAC trade show in Germany


Training in Germany


HVAC trade show in Germany


Training seminar in Italy


Event in the United Kingdom

## Oceania


HVAC trade show in Australia


Launch event in New Zealand


Launch event in New Zealand


Opening ceremony in India


New product presentation seminar in Singapore


Service training in Vietnam

## International authoritative design awards


The NEWS
Dealer Design Awards


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


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


Superbrands is the world's largest independent arbiter of branding.


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


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


reddot winner 2020
A product design competition that has been held since 1955. Products that win the award are given the "Red Dot" seal, a sign of international recognition of quality.


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


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


China State Construction Engineering Luban Prize


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

# PROJECT REFERENCE

## Introduced in
## over 50 countries worldwide

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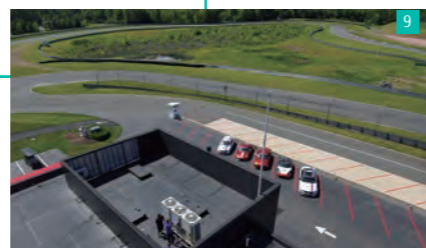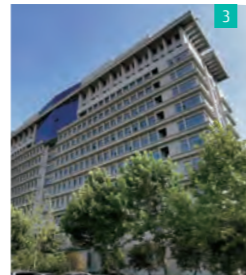
### For Light commercial use

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

### For Commercial use

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

### For Residential use

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

# GLOBAL DEVELOPMENT & PRODUCTION BASES

We have established R&D bases in five countries from Japan, Europe, Asia, China, and North America to pursue environmental properties and comfort according to the needs of each region.

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

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

• F.G.L.S Electric Co., Ltd.

• Fujitsu General (Euro) GmbH
  **R&D center**

• Fujitsu General Electronics Ltd.

• Fujitsu General Limited
  —  **R&D center**

• Fujitsu General (Shanghai) Co., Ltd.
  —  **R&D center**

• North America R&D Center
  —  **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.

## R&D center & Technology Research Building

R&D center in Fujitsu General (EURO) GmbH (Germany)
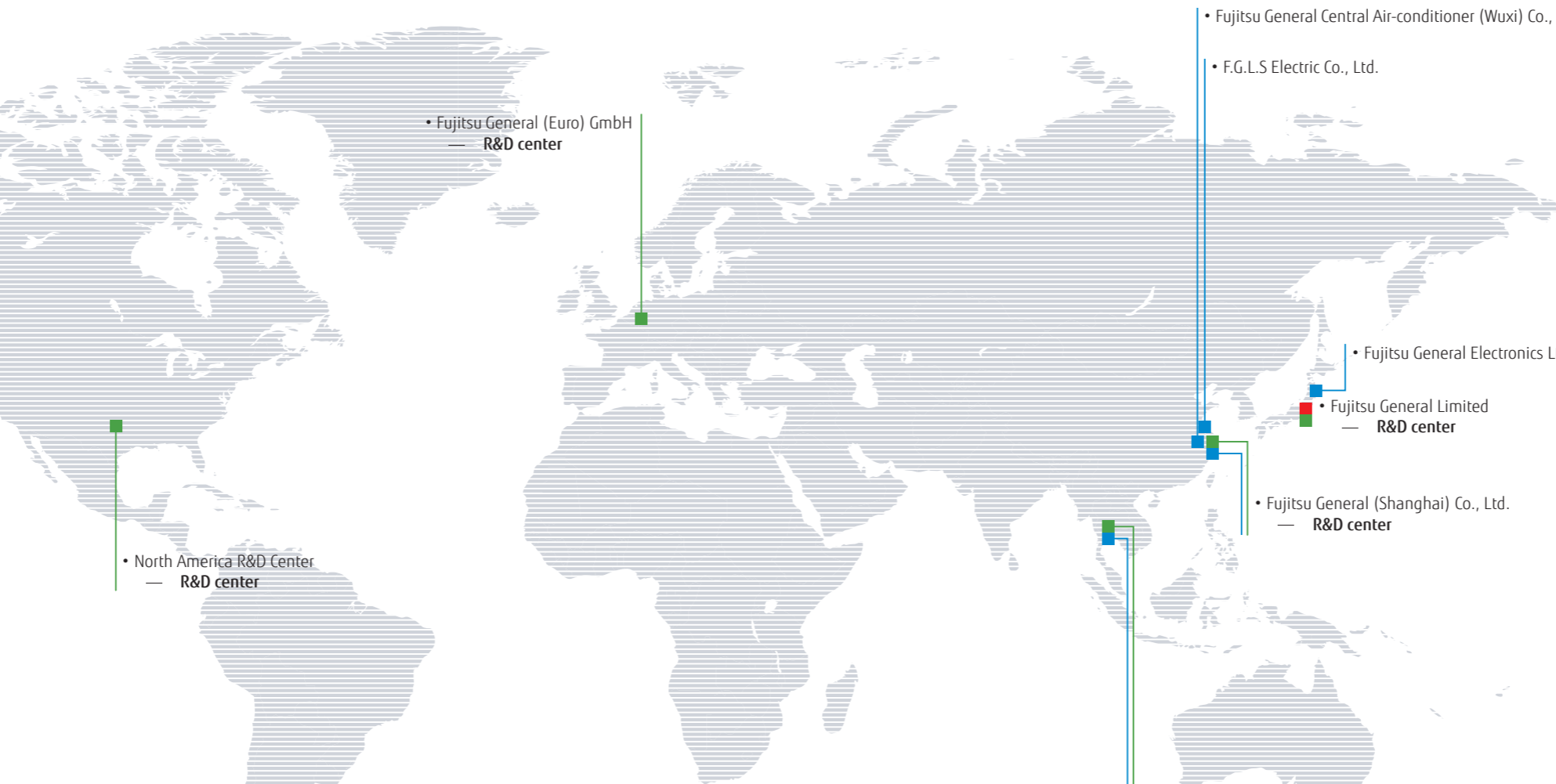
North America R&D Center (USA)

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

R&D center in Fujitsu General (Shanghai)

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

**Technology research building**
in Japan Head office

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

## Overseas manufacturing companies

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

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

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

Fujitsu General Electronics Ltd. (Japan)

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

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

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**
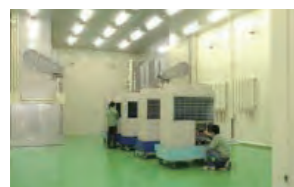Measure air volumes of the air conditioners from compact room air conditioner models to VRF.

**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
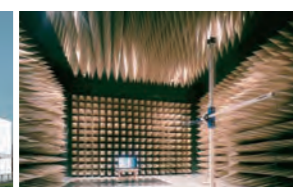
**Compressibility testing**

**Vibration testing**

**Technology Research Building**
in Japan Head Office

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

## Testing Laboratory

**Fujitsu General EMC Laboratory Limited**

## Acquisition of ISO 9001 and ISO 14001

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

**North America**
■ Sales subsidiary (1)

**Europe**
■ Sales subsidiary (3)

**Asia**
- Sales subsidiary (3)
- Manufacturing subsidiary (5)

**Middle East**
■ Sales subsidiary (1)

**Japan**
- Head office
- Manufacturing subsidiary (2)

**South America**
■ Sales subsidiary (1)

**Oceania**
■ Sales subsidiary (2)

Each of overseas production bases (5 companies) has completed the acquisition of ISO 9001 and ISO 14001 individually.
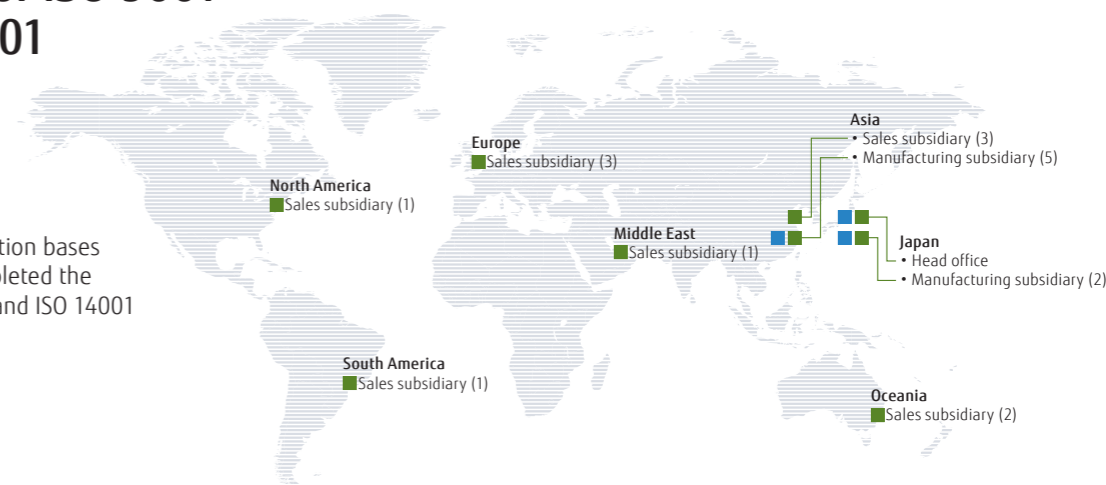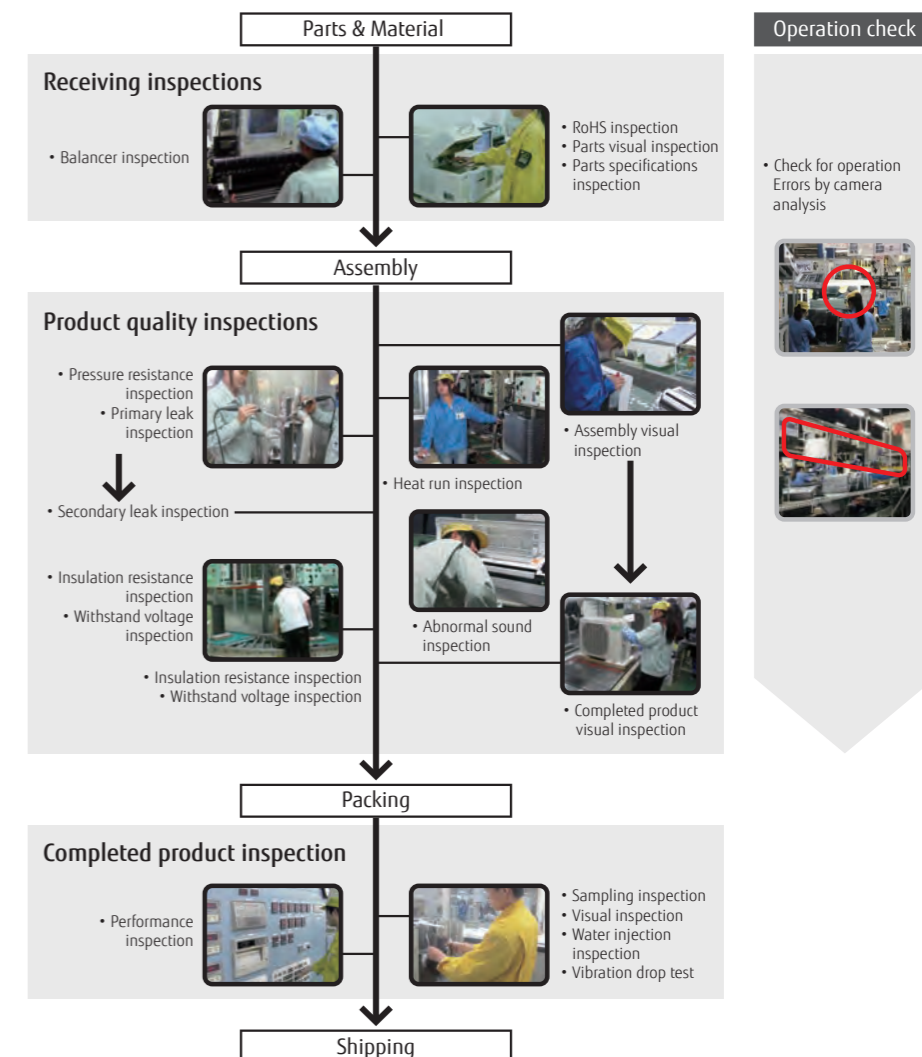
## High Product Quality Assurance

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**

**Operation check**
- Check for operation Errors by camera analysis

**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
- Assembly visual inspection
- Heat run 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**

14

15

# 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

**THE
TOTAL SOLUTION**

High
Durability

Enhanced
Safety

## 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.
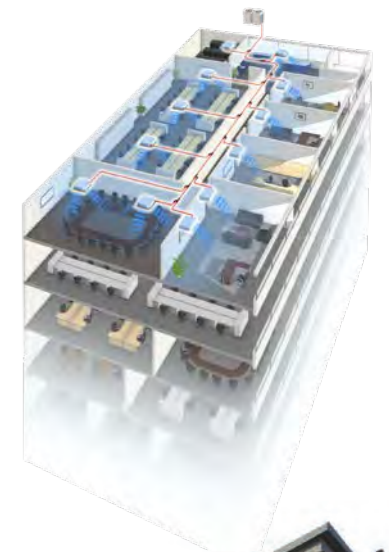
# Small Offices
## For Light Commercial

Fujitsu General provides perfect total air conditioning systems that take into account energy saving, low noise, comfortable airflow, small room application and centralized control for small-sized office buildings with many small rooms.

18 HP model

J-III

J-IIIL

J-IIIL
High capacity model

## VRF J Series Up to 18 HP by compact outdoor unit

Small VRF system is suitable for the buildings with many small rooms. maximum 34* indoor units can be connected.

*Only J-IIIL 18 HP model
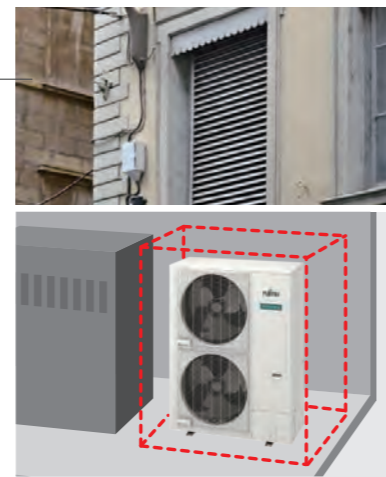
J-IIIL

## Compact and low noise design outdoor unit

This compact outdoor unit does not take up much space even if installed in a machine room or on the rooftop. This unit secures enough static pressure even if there are louvers. Low noise operation is possible at nighttime by a low noise mode.

## Breakthrough 3D flow cassette with innovative pursuit of comfort

The left and right air outlet ports with maximum 100° rotation angle and the wide center air outlet port can minimize uneven temperature to create a comfortable space.

3D Flow Cassette

## Various indoor units lineup for low capacity class

Various range of low capacity indoor units to suit small rooms or spaces.
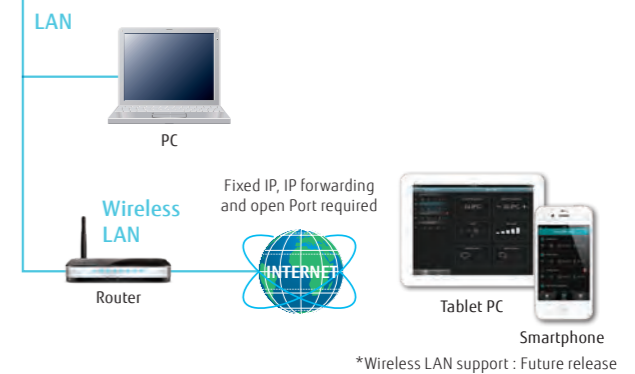
Wall Mounted

Floor (compact)

Compact Cassette Grid Type

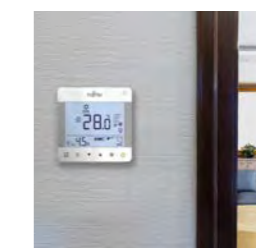## Centralized remote controller with improved operability

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.

Central Remote Controller  UTY-DCGYZ2

LAN

PC

Wireless LAN

Fixed IP, IP forwarding and open Port required

INTERNET

Router

Tablet PC

Smartphone

*Wireless LAN support : Future release

## Compact wired remote controller

The size is compact but the screen is large and easy to operate. Stylish design that fits the interior.

# Hotels

## For Light Commercial

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.

## VRF J Series appearance-oriented compact outdoor unit

J-IIIL
High capacity model

J-IIIL

J-III

Due to the lowest and most compact design in the industry, the appearance of hotel is not damaged even when installed on the building.

## 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.
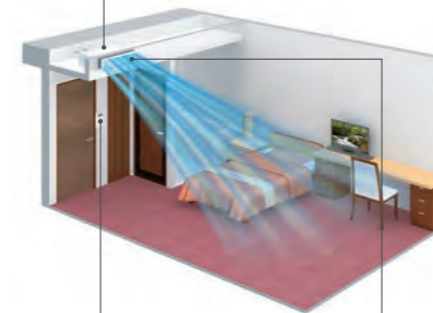This system can be expanded.

EEV unit

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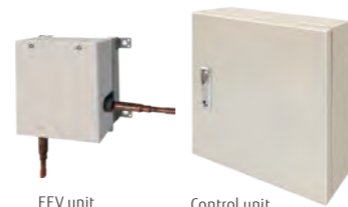
## Guest room air conditioning with excellent comfort, energy saving and easy installation

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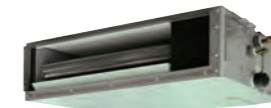
Mini Duct

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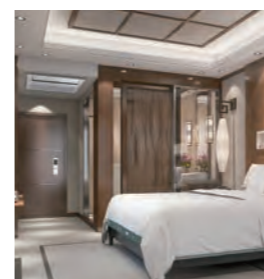Using the card key prevents you from forgetting to switch off the air conditioner.

**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

Cassette (1-way Flow type) Series

**Compact chassis with low noise operation**
The low operating noise makes the model ideal for use in hotel rooms.

## 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.

System controller
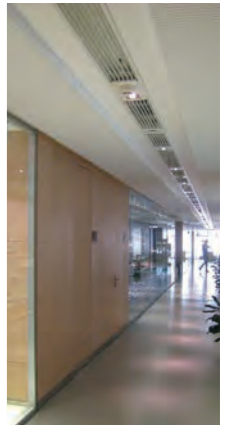
## Simple Remote Controller with sophisticated design

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.

## Large space air conditioning for the reception area and lobby

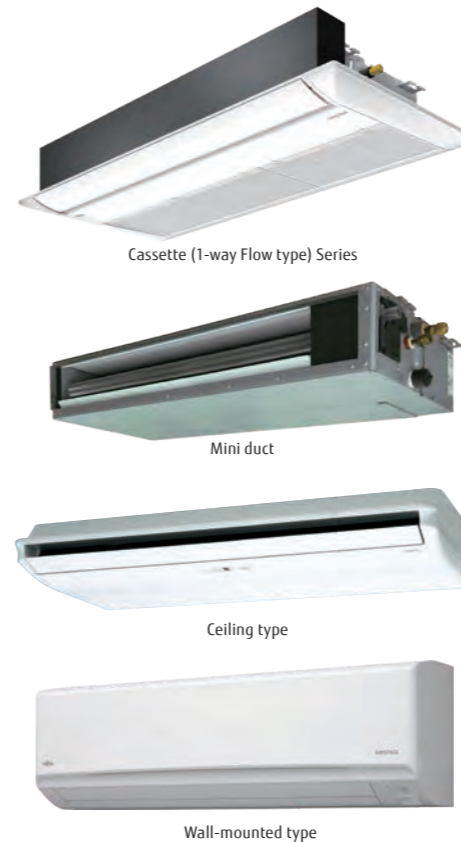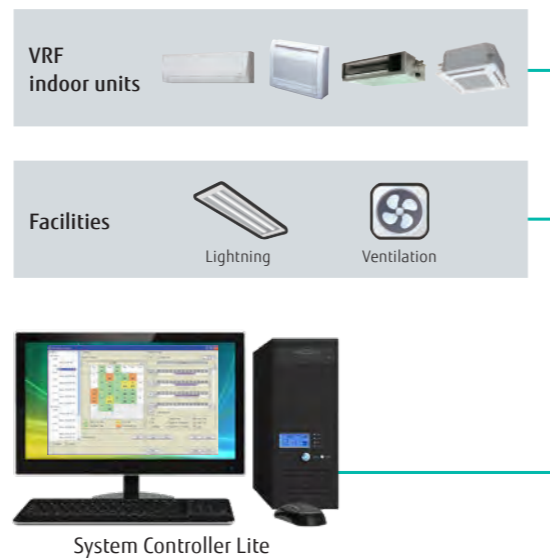Duct type Big duct Series suitable for large spaces with high ceilings
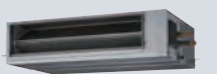
# School
## For Light Commercial

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.
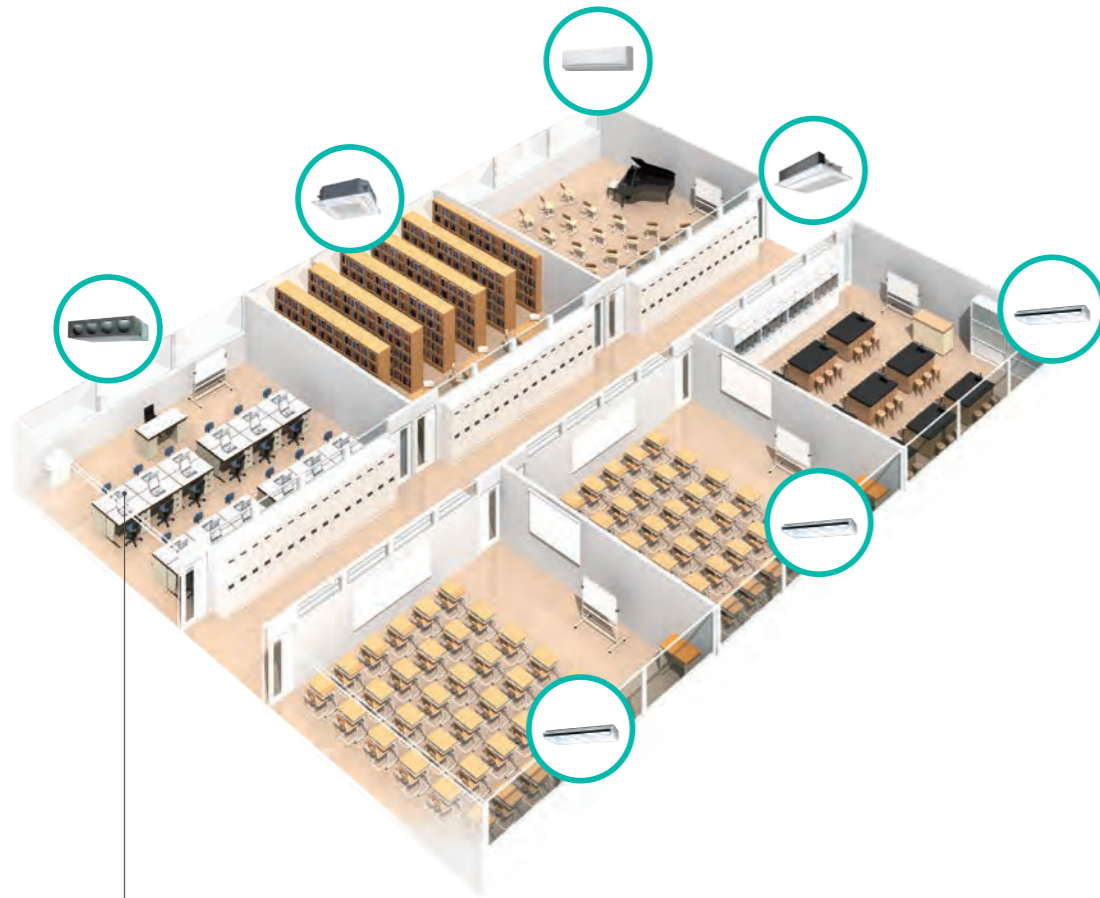
## Centralized control of both air conditioning and ventilation equipment

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

VRF
indoor units

Facilities

Lightning          Ventilation

System Controller Lite

Cassette (1-way Flow type) Series

Mini duct

Ceiling type

Wall-mounted type

## 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.

Circular Flow Cassette
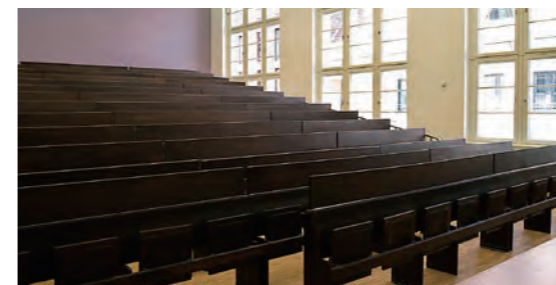
## Comfortable room air conditioning without airflow feeling

Circular Flow 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

Occupancy sensor (Option)

# Restaurant, Shops

## For Light Commercial

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

## RESTAURANT

Cassette Circular Flow Series
For ambiences with dim lightings

Cassette Circular Flow Series
For bright Interior rooms etc.
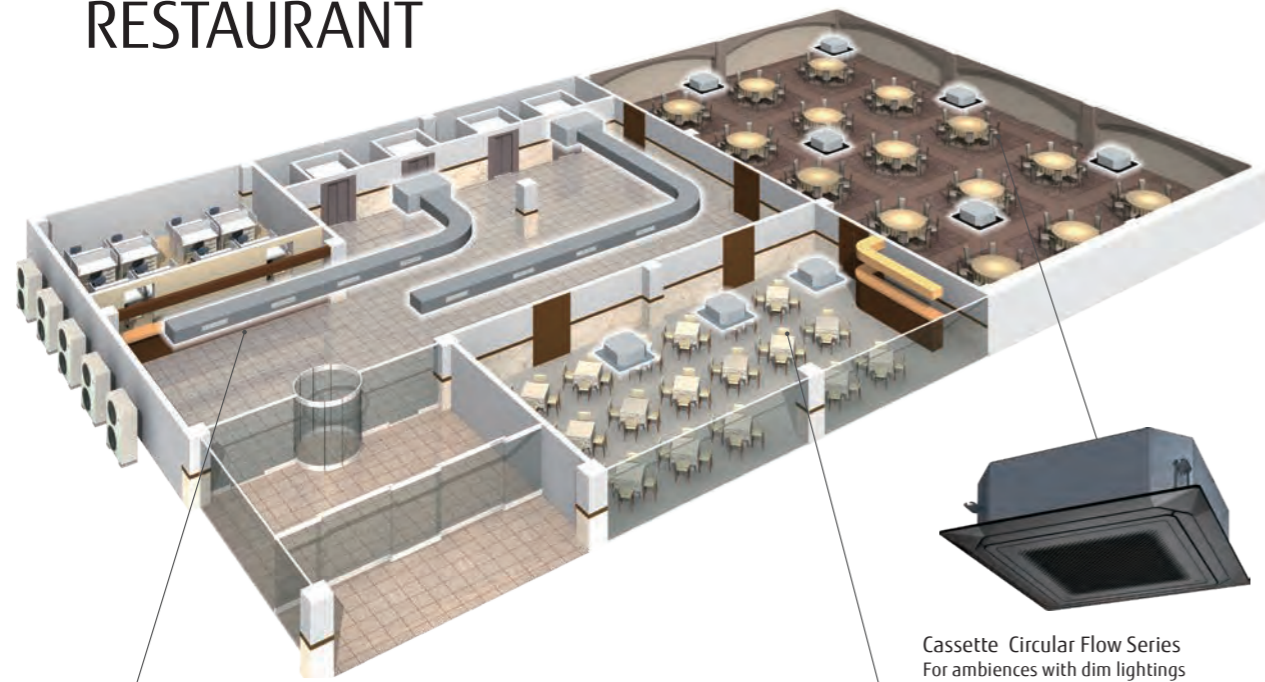
### Appropriate air conditioning in the atrium space

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

High Static Pressure Duct

### Color variations by two panels

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

## SHOPS

### Low outside air temperature cooling air conditioning support

Low outside air temperature cooling operation is necessary in winter in stores with a lot of heat inside. Air conditioning system can be supported flexibility to allow cooling operation at -15°C

Medium Static Pressure Duct

## 40-150 Pa

# Large Building

## For Commercial

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

## Abundant lineup suitable to match the operating environment

VRF Series lineup to meet various needs such as energy saving-orientated models and models compatible with a high outdoor air temperature of 52℃

### VRF V-Ⅲ

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

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

### Individual air conditioning system for large buildings

Capacities can be expanded up to simultaneous cooling and heating with maximum 54HP. Large individual air conditioning is supported.

### VRF V-Ⅲ Tropical TROPICAL SPEC

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

## Centralized control

Not only indoor units in the building but also facilities such as ventilation can be controlled easily by anyone.

**System Controller**
(UTY-APGXZ1)

**System Controller Lite**
(UTY-ALGXZ1 & UTY-PLGXX2)

Remote/
Monitoring side

INTERNET

Router

Smartphone

VRF indoor units

Facilities

Lightning    Ventilation
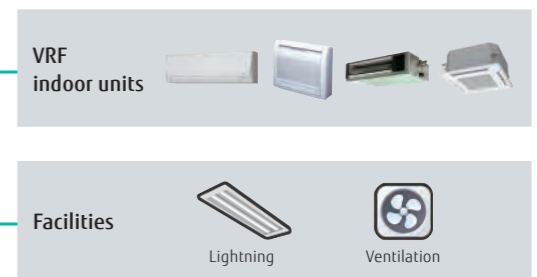
## Link up with a variety of BMS

Centralized control including facilities and equipment in addition to air conditioning is possible by linking up with MODBUS, BACnet, KNX and other various interfaces.

KNX    LONWORKS®
Modbus    BACnet
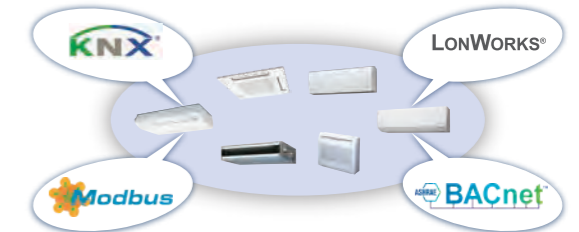
## High system flexibility

Flexible installation on each floor and installation of diverse indoor units are possible through the industry's top class high static pressure, long piping design and connection capacity.

### 82 Pa

Installation example
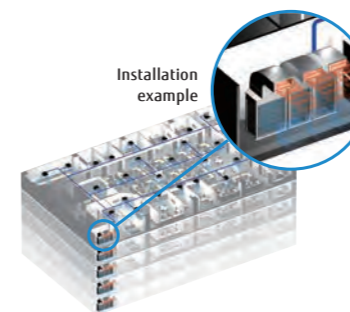
## Rapid service support

The air conditioning of the entire building can be monitored remotely with Web Monitoring Tool and System Controller. Rapid response for emergency is possible by a self-diagnosis in advance in cooperation with a management company.

Internet or Public Telephone Line

**Remote Monitoring**
Web Monitoring Tool
UTY-AMGXZ1
Software
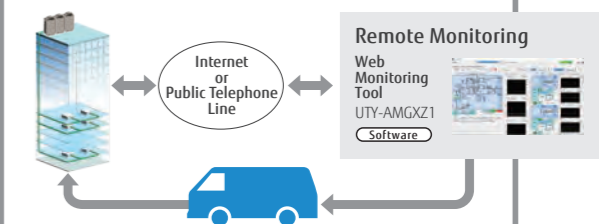
**VRF SYSTEMS CAN BE DESIGNED TO
CREATE AN AIR CONDITIONING SOLUTION TO
SUIT MOST BUILDINGS REQUIREMENTS.**

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

# VRF
# CORE TECHNOLOGY

**HIGH ENERGY EFFICIENCY**

**MORE COMFORT**

**HIGH RELIABILITY**

**DESIGN FLEXIBILITY**

**EASY INSTALLATION**

**EASY SERVICE & MAINTENANCE**

# HIGH ENERGY EFFICIENCY

## Operation Performance is Efficiently Controlled.

### Room temperature set point limitation

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

(°C)
Heating    Cooling

Original Set Temp          Set point limitation setting
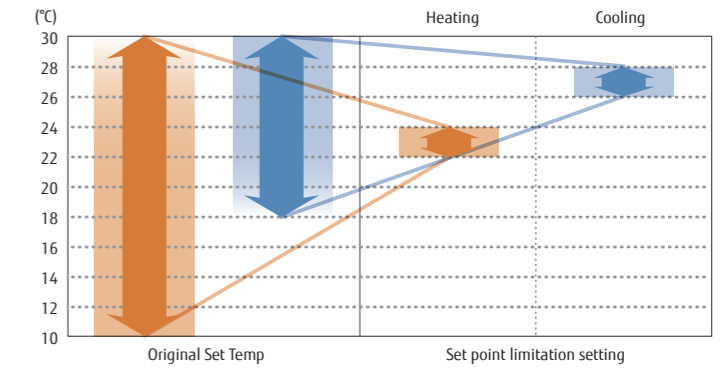
### Auto-off timer

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)

OFF

17:00                              24:00
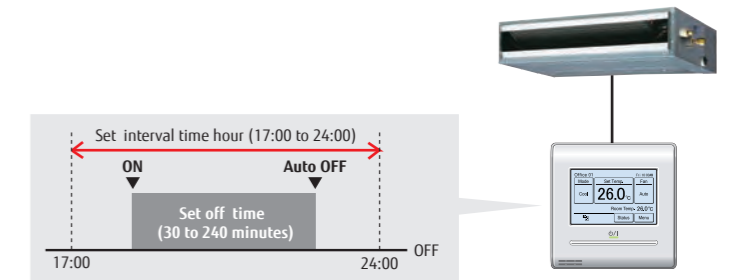
### Energy saving management

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

### Highly Energy Efficiency

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

█ EER
█ COP

**8 %UP!**
**7 %UP!**
**35 %UP!**
**31 %UP!**

3.45    **3.71**    3.95    **4.23**    3.2    **4.31**    3.7    **4.84**

5
4
3
2
1
0

J-II Series    **J-III Series**    J-II Series    **J-III Series**    V Series    **V-III Series**    V Series    **V-III Series**
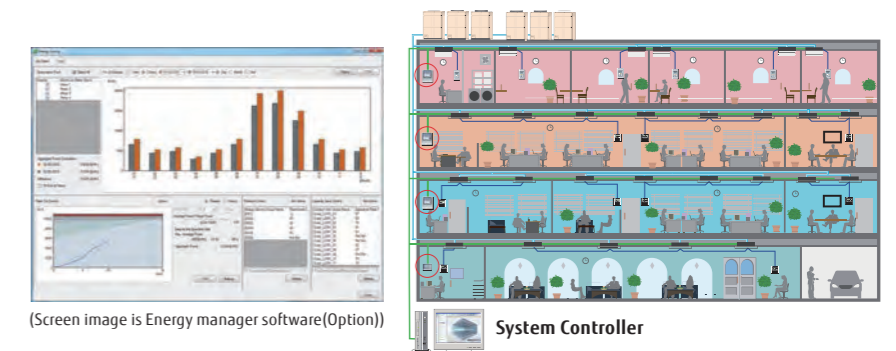
### Capacity limit operation

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

Setting range    Capacity
Capacity limit

100 %    Setting level
80 %
60 %
40 %
0 %

Time
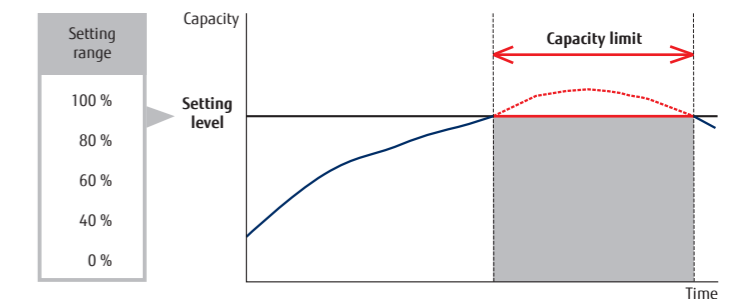
# MORE COMFORT
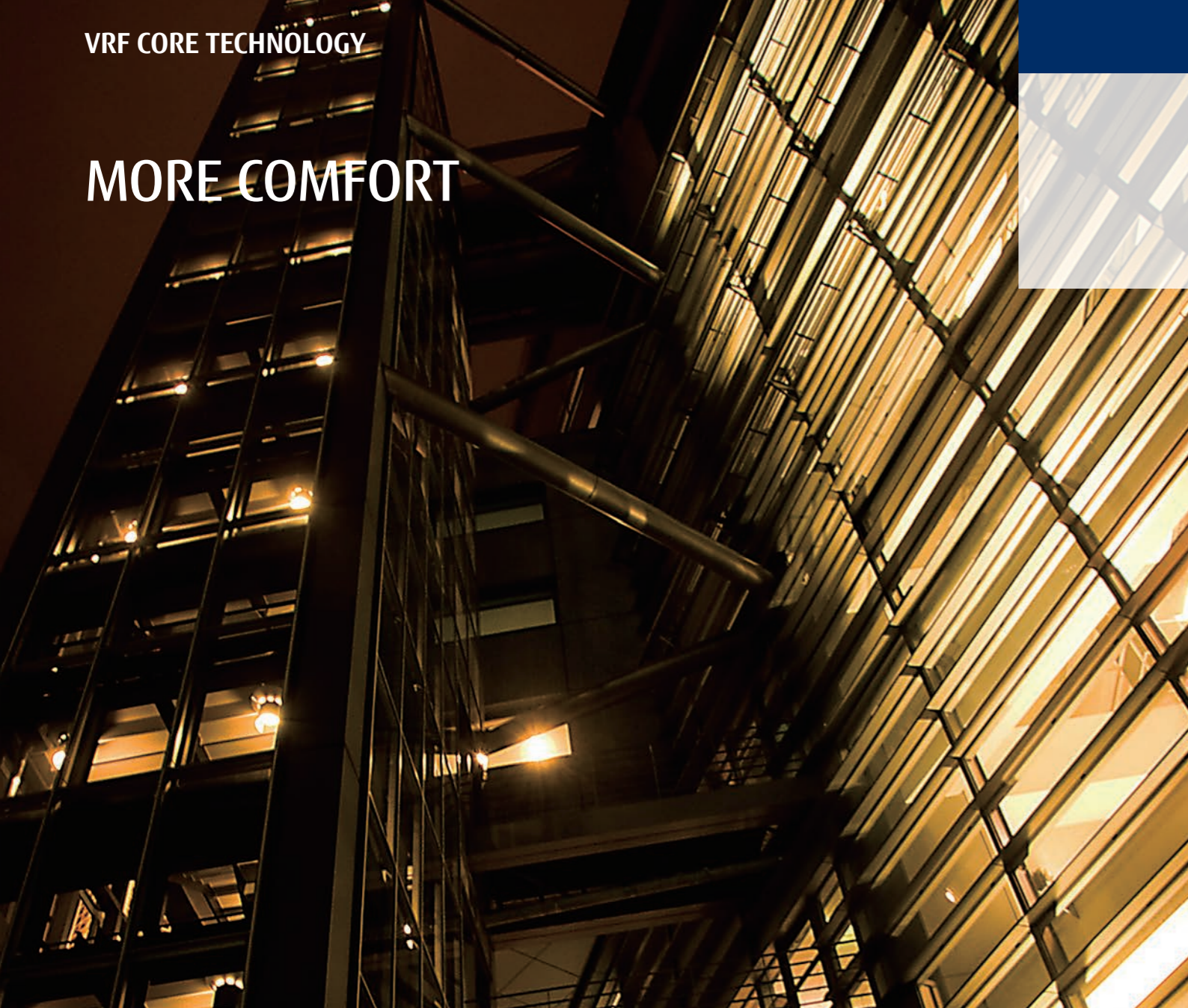
## Precision refrigerant flow control

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℃.

High

Set temp.    Hot    Hot

Cold

±0.5℃

Low

**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

## Low sound level design

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

These models will be able to offer greater audibility comfort by operating at super low sound levels.

Small capacity indoor unit

## Quiet operation

**Low noise mode**

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

**Quiet priority setting**

Air conditioning load factor

Heat load

Capacity    100%
0

Operating sound    58dB
0

down

time

Quiet priority low noise mode

**Capacity priority setting**

Air conditioning load factor

Heat load

Capacity    100%
0

Operating sound    58dB
0

Alternated automatically

Reset automatically    time

Capacity priority low noise mode
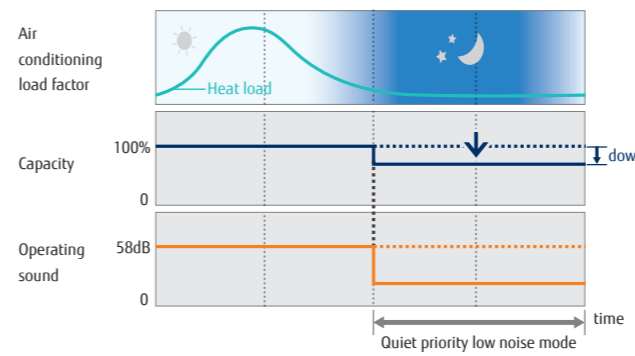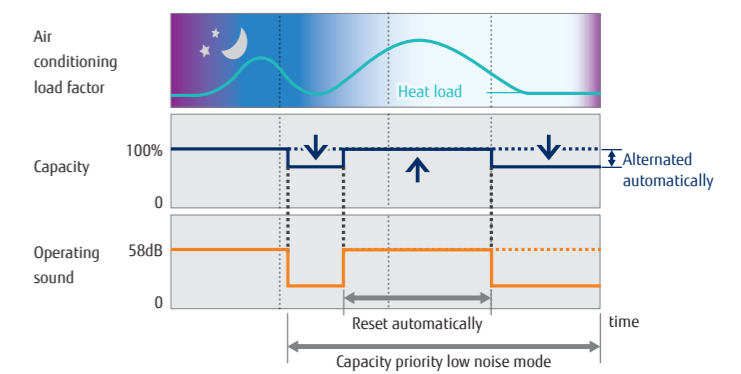
## Auto changeover function

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

2℃
0.5℃
Set Temp.
-0.5℃
-2℃    time

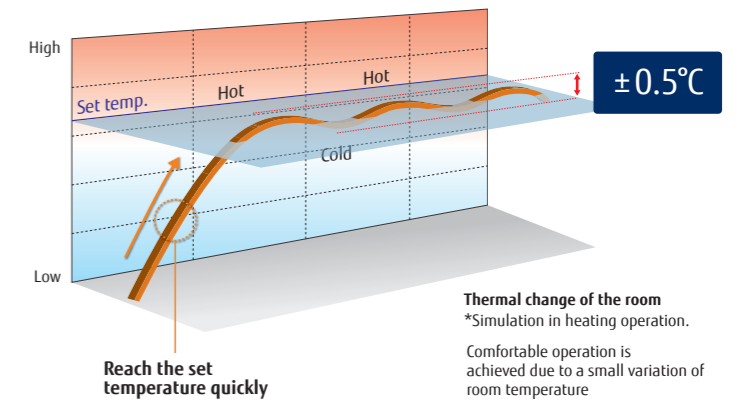— Cooling operation    ····· Cooling fan operation
— Heating operation    ····· Heating fan operation

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

Automatic cooling / heating operation for each room is possible

Heating

Cooling

Room A 24℃    Room B 18℃

Dry

Room C 27℃    Room D OFF    Room E 23℃

Fan

Switching to cooling and heating mode by specific remote controller in the main room, etc.

## 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    V-III Series    (Heating operation)

Operation stopped at oil recovery    Non-stop oil recovery operation

ON
OFF    Time

ON    Time

# HIGH RELIABILITY

## Backup operation

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

*: Note: Backup operation may not be possible depending on the trouble state.
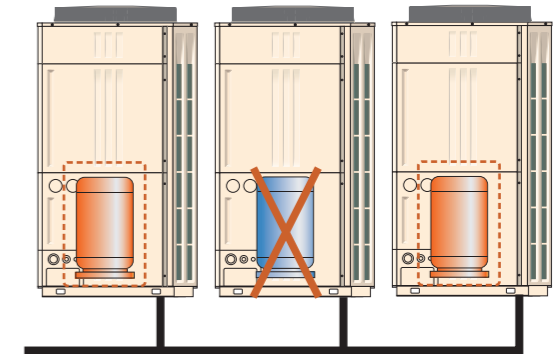
## Advanced refrigerant control

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

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

**Balance operation condition**      **Unbalance operation condition**
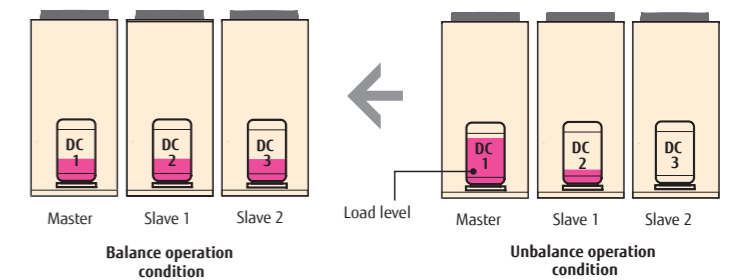
## Liquid flow back protection

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 Evapolator

**Compressor**

**Large sized Accumulator**

Liquid refrigerant (stays inside of accumulator)

## 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.

## Adoption of blue fin heat exchanger

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

**Blue fin heat exchanger**

Cobalt Blue protection
Standard chromate protection
Aluminium base material
Hydrophilic coating
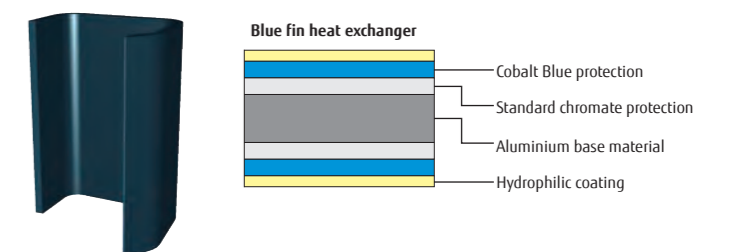
# DESIGN FLEXIBILITY

## Overall piping length 1,000 m

**Total pipe length**
**1,000 m** maximum



Actual pipe length
**165 m**
(V-III, V-III tropical)

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

Height difference between indoor units
**15 m** maximum

Pipe length from first separation tube to the farthest indoor unit
**90 m*** maximum
(V-III, V-III tropical)

*: The limitation on the pipe length between the farthest indoor unit and the nearest indoor unit originated from the first separation tube must be 60 m or less.

## High static pressure

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

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

**82 Pa**
(V-III, V-III tropical)
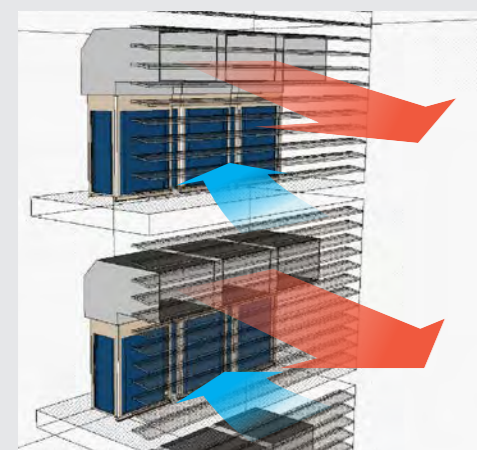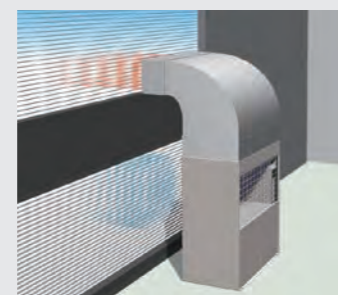


Previous model

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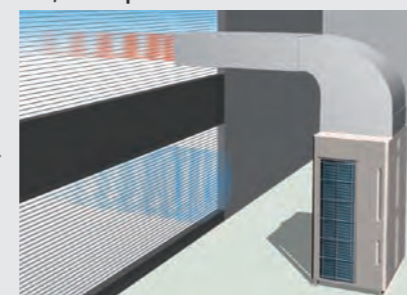
Large diameter fan and DC motor has been utilized allowing an external static pressure of 82Pa. This is approximately 2.6 times greater than the previous model.

## High capacity connection

14HP-18HP
**VRF J-IIIL Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 150 %**
Connectable indoor unit number
**up to 34**

8HP-12HP
**VRF J-IIIL Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 150 %**
Connectable indoor unit number
**up to 22**

4HP-6HP
**VRF J-III Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 150 %**
Connectable indoor unit number
**up to 13**

4HP-6HP
**VRF J-IIS Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 130 %**
Connectable indoor unit number
**up to 8**

8HP-54HP
**VRF V-III Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 150 %**
Connectable indoor unit number
**up to 64**

8HP-54HP
**VRF V-III tropical Series**
**Heat Pump type**
Connectable indoor unit capacity range
**50 % to 130 %**
Connectable indoor unit number
**up to 55**

## Wide operating range

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

**VRF J-IIIL Series (8/10/12HP)**
**Heat Pump type**
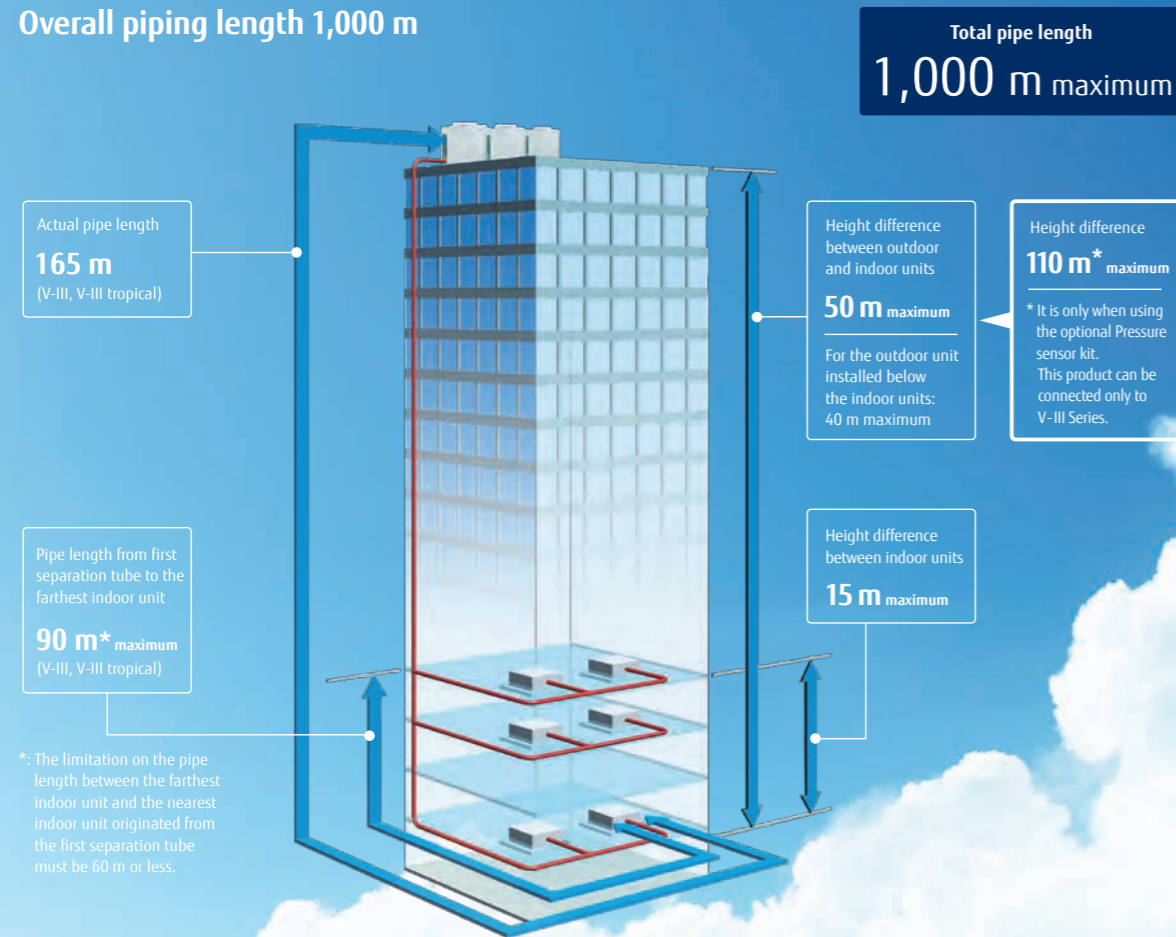(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-15°C
-20°C

**VRF J-IIIL Series (14/16/18HP)**
**Heat Pump type**
(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-5°C*2
-20°C

**VRF J-III Series**
**Heat Pump type**
(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-5°C
-20°C

**VRF J-IIS Series**
**Heat Pump type**
(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-5°C
-20°C

**VRF V-III Series**
**Heat Pump type**
(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-15°C*1
-20°C

**VRF V-III tropical Series**
**Heat Pump type**
(°C)
60 50 40 30 20 10 0 -10 -20
Cooling 52°C
Heating 21°C
-15°C *2
-20°C

*1. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 46°C in cooling.
*2. Note : Only when all indoor units are 5.6 kW or more in the system, the operation range is -15 to 46°C.

# EASY INSTALLATION

## Easily transported

### Easily craned using lifting belt hooks

Design of outdoor unit allows for lifting straps to be used
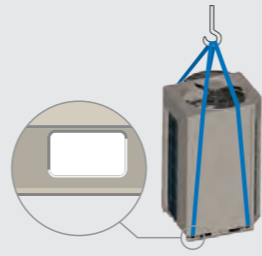
### Transporting by forklift

Transport with forklift is possible.

### Can be transported in a small elevator
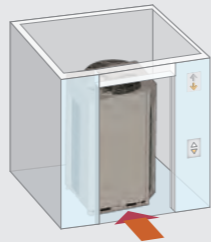
## Easy access

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
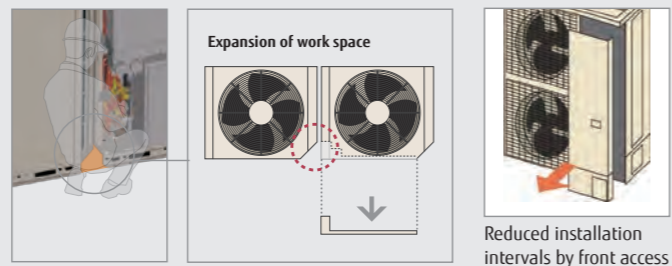
## Flexible piping connection

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

Flexible installation by 4 way pipe direction (J-IIIL is 3 way pipe direction.)
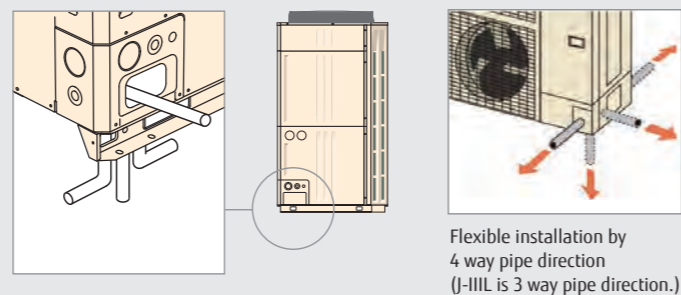
## Simple wiring work

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

or

Parallel connection    Serial connection
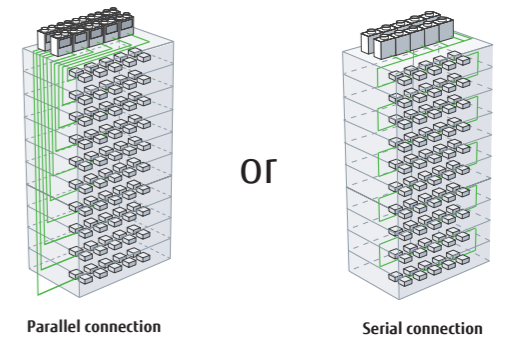
## Easy evacuation - using vacuum mode function

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
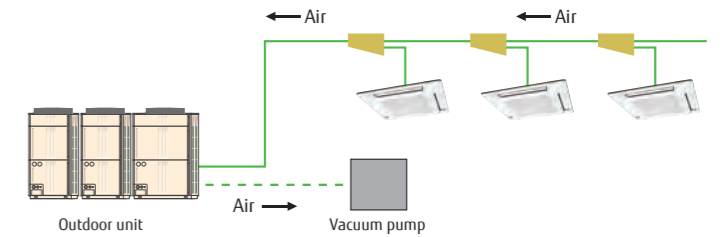
## Automatic address setting

The address of the indoor unit 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

3    7    1    0

Press the push button switch of outdoor unit.

2    4    5    6

Manual address setting from indoor unit and remote controller is also possible.
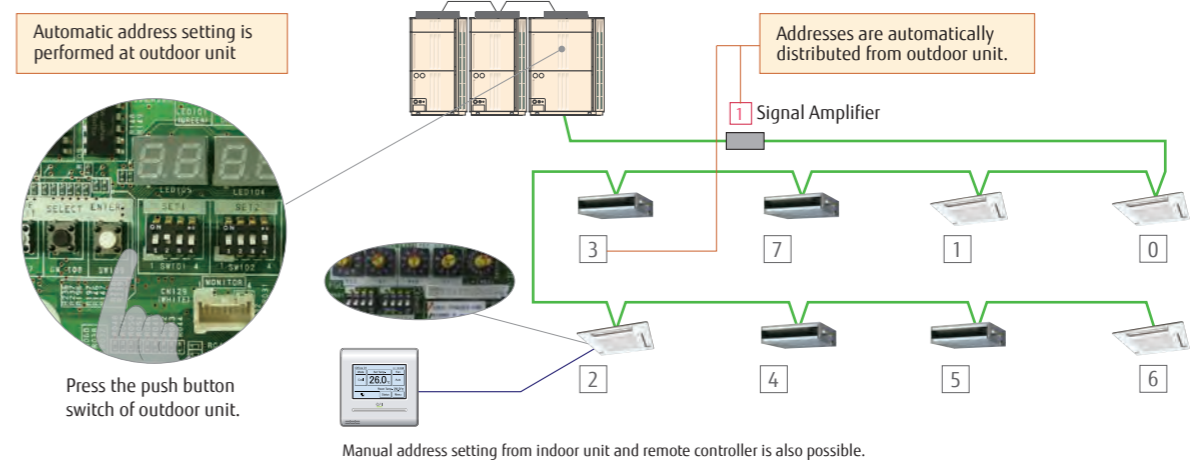
## Easy commissioning by Service Tool

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.

**Movable PCB panel**
Easier for maintenance work behind the PCB

**7-segment LED**

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

### 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 | 2:53AM | 002-02 | 143 |
| 3 | 2012/ 7/25 | 8:50AM | 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 cheked 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.

**Service Tool**
UTY-ASGXZ1
Software

Outdoor unit

Transmission line

USB adaptor
(Locally purchased)

Indoor unit
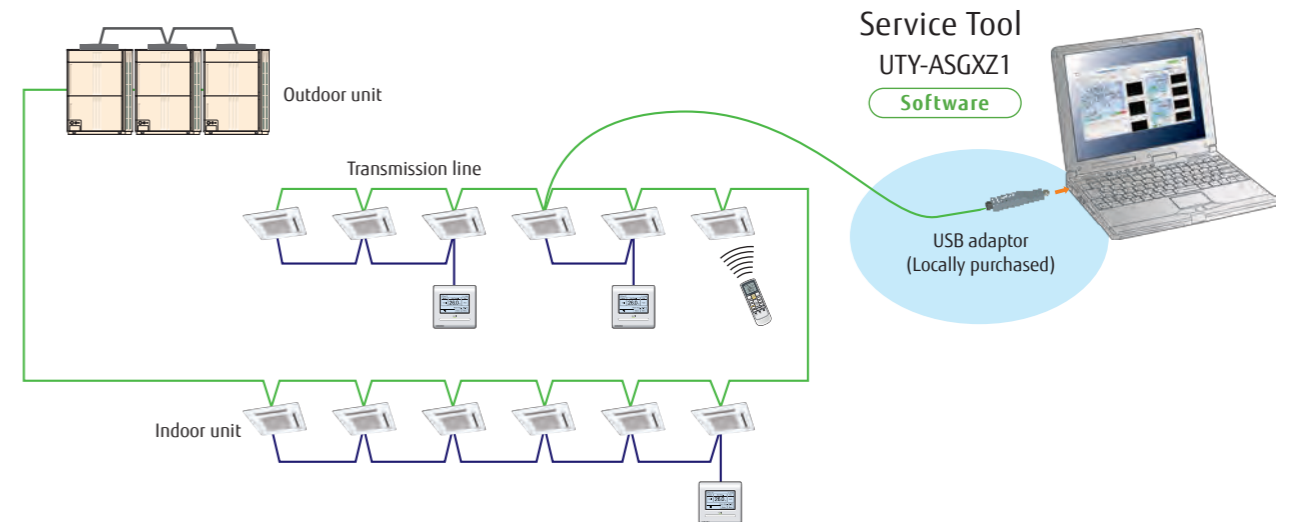
## Remote monitoring

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
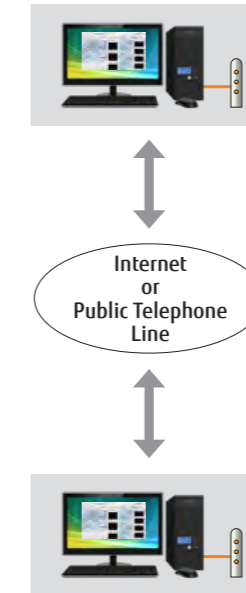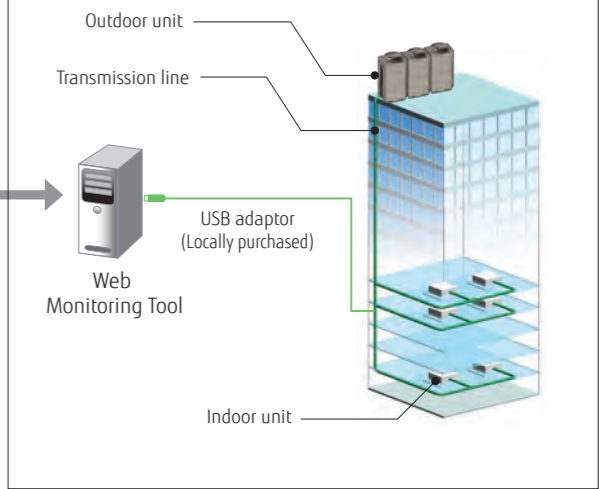
Indoor unit

**The VRF 5 Series has a total of 96 models to meet the environmental and building size requirements.**

The VRF 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.

# VRF SERIES

VRF Series LINE-UP

HEAT PUMP TYPE VRF J-IIIL Series

HEAT PUMP TYPE VRF J-III Series

HEAT PUMP TYPE VRF J-IIS Series

HEAT PUMP TYPE VRF V-III Series

HEAT PUMP TYPE VRF V-III TROPICAL Series

# VRF Series LINE-UP

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

## Outdoor units range

| HP | | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| kW class | | 12.1 | 14.0 | 15.1-15.5 | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.4 | 55.9 | 61.5 | 67.0 | 73.5 | 78.5 | 85.0 | 90.0 | 95.0 | 100.5 | 107.0 | 112.0 | 118.5 | 123.5 | 130.0 | 135.0 | 139.0 | 143.0 | 147.0 |
| VRF **J-ⅢL** Heat Pump | Space saving | | | | AJY072LELAH | AJY090LELAH | AJY108LELAH | AJY126LELAH | AJY144LELAH | AJY162LELAH | | | | | | | | | | | | | | | | | | |
| VRF **J-Ⅲ** Heat Pump | High Efficiency (Single phase) | AJY040LBLAH AJA040LBLAH | AJY045LBLAH AJA045LBLAH | AJY054LBLAH AJA054LBLAH | | | | | | | | | | | | | | | | | | | | | | | | |
| | High Efficiency (3 phase) | AJY040LELAH | AJY045LELAH | AJY054LELAH | | | | | | | | | | | | | | | | | | | | | | | | |
| VRF **J-ⅡS** Heat Pump | Space saving | AJY040LCLAH | AJY045LCLAH | AJY054LCLAH | | | | | | | | | | | | | | | | | | | | | | | | |
| VRF **V-Ⅲ** Heat Pump | Space saving | | | | AJY072LALBH | AJY090LALBH | AJY108LALBH | AJY126LALBH | AJY144LALBH | AJY162LALBH | AJY180LALBH | AJY198LALBH | AJY216LALBH | AJY234LALBH | AJY252LALBH | AJY270LALBH | AJY288LALBH | AJY306LALBH | AJY324LALBH | AJY342LALBH | AJY360LALBH | AJY378LALBH | AJY396LALBH | AJY414LALBH | AJY432LALBH | AJY450LALBH | AJY468LALBH | AJY486LALBH |
| | High Efficiency | | | | | | | AJY144LALBHH | AJY162LALBHH | AJY180LALBHH | | | AJY216LALBHH | AJY234LALBHH | AJY252LALBHH | AJY270LALBHH | AJY288LALBHH | AJY306LALBHH | AJY324LALBHH | AJY342LALBHH | AJY360LALBHH | AJY378LALBHH | AJY396LALBHH | AJY414LALBHH | | | | |
| VRF **V-Ⅲ** Tropical Heat Pump | Space saving | | | | AJY072LNTCH | AJY090LNTCH | AJY108LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY180LNTCH | AJY198LNTCH | AJY216LNTCH | AJY234LNTCH | AJY252LNTCH | AJY270LNTCH | AJY288LNTCH | AJY306LNTCH | AJY324LNTCH | AJY342LNTCH | AJY360LNTCH | AJY378LNTCH | AJY396LNTCH | AJY414LNTCH | AJY432LNTCH | AJY450LNTCH | AJY468LNTCH | AJY486LNTCH |
| | High Efficiency | | | | | | | AJY144LNTCHH | AJY162LNTCHH | AJY180LNTCHH | | | AJY216LNTCHH | AJY234LNTCHH | AJY252LNTCHH | AJY270LNTCHH | AJY288LNTCHH | AJY306LNTCHH | AJY324LNTCHH | AJY342LNTCHH | AJY360LNTCHH | AJY378LNTCHH | AJY396LNTCHH | AJY414LNTCHH | | | | |

*: Not available to sale in some regions

# HEAT PUMP TYPE
## VRF J-ⅢL Series

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

## System Outline

### Compact Outdoor unit
The compact and low sound level enable the units to be installed to various environment with restriction and/or limited spaces such as mechanical rooms and or rooftops.

### Small room application
Up to 34 indoor units can be connected by the optimum heat exchanger structure. Available to various small rooms.

### Quiet design
Top class low sound operation has been achieved. This allows installation of the units to various places without a special sound prevention work.

### Small Office

### 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
Indoor unit
Liquid pipe
Gas pipe
Indoor unit
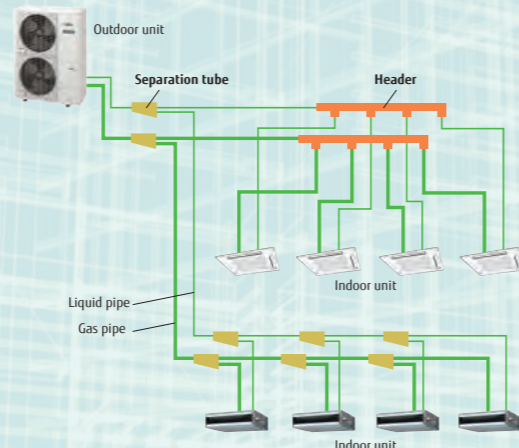
## Efficiency in actual operation
Top class high EER/COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.

**High EER / COP**  ■ EER / ■ COP

| | 8HP | 10HP | 12HP | 14HP | 16HP | 18HP |
|---|---|---|---|---|---|---|
| EER | 3.56 | 3.26 | 3.22 | 3.30 | 3.01 | 2.70 |
| COP | 4.82 | 4.24 | 4.10 | 4.12 | 3.81 | 3.66 |
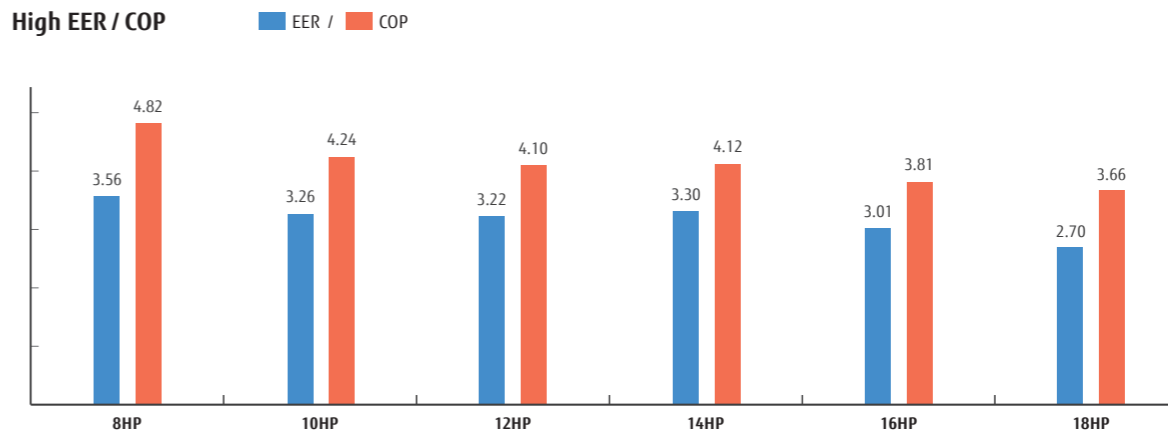
## Advanced high efficiency technology

∅570mm

### Large propeller fan
The high efficiency and the low sound operation are mutually realized by reduction of a draft loss which are enabled by the Fujitsu General's original blade design and a large diameter propeller fan.

### DC fan motor
Miniaturized, low noise, high efficiency, multi-stage DC fan motor is mounted.
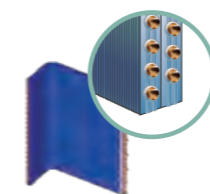
### Large heat exchanger
Heat exchange performance is substantially improved by mounting of 2.6-row large heat exchanger.

### DC inverter control
Efficiency is improved by mounting of new active filter module.

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

Pressure
effect
Cooling performance improved
Enthalpy
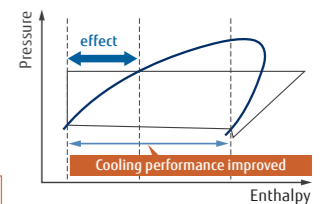
### Scroll compressor
The equipment of scroll compressor with a wide range of rotational frequency from 15 to 130 rps together with Fujitsu General's unique sensorless sine wave control method which smoothly control the input power run into the motor realized a mutual improvement on the energy efficient operation and the low sound operation.
*18HP only

15-130 rps*

Fujitsu General provides perfect total air conditioning systems that take into account energy saving, low noise, comfortable airflow, small room application and centralized control for small-sized office buildings with many small rooms.

VRF **J-ⅢL**

Image: 8/10/12 HP models

## Slim & Compact Design

VRF **J-ⅢL**
14/16 HP models & 18 HP model

Current model
VRF V-Series
outdoor unit
14/16/18 HP models

765 mm

480 mm

**Depth difference**
**-285 mm**
J-ⅢL all models
Compared with current all models

**Space requirement**
**-45%!**
Compared with
current 14/16/18 HP models

**Weight**
**-58 kg!**
Compared with
current 18 HP model

**Height difference**
**-262 mm**
Compared with current 8 HP model

VRF **J-ⅢL**
8/10/12 HP models

1,690 mm

1,428 mm

Current model
VRF V-Series
outdoor unit
8/10 HP models

**Space requirement**
**-26%!**
Compared with
current 8/10 HP models

# Various Installation

VRF V Series outdoor unit

VRF J Series outdoor unit

**In house installation**
### Low noise in consideration for the nearby residents
This model is front blow type and about 1000 mm wide, so flexible installation is possible even at narrow in house space.

VRF V Series outdoor unit

VRF J Series outdoor unit

**Narrow space behind building**
### Space saving
Due to compact and thin model, direct ground installation or wall mounted installation is possible even at narrow off-street.
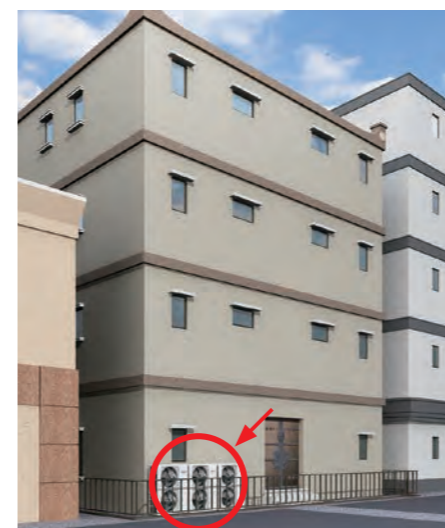
VRF V Series outdoor unit

VRF J Series outdoor unit

**Installation at back street of building**
### Flexible installation
This model is front blow type and slim & low body, so installation space is compact. Building windows are not blocked and space saving multiple units installation is possible.

## Long piping capability

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 400 m. This opens up new possibilities in system design.

## Up to 34 units* can be connected

The combination of the smallest but adequate capacity indoor unit and a new outdoor unit with the optimum heat exchanger structure has realized the industry's top class connection of 34 units.

*: 18HP model

**Total pipe length**
**400 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
**90 m maximum**

Height difference between indoor and indoor units
**50 m maximum**

## External static pressure

External static pressure is available up to 60 Pa for 14/16/18HP. (20 Pa for 8HP, 30 Pa for 10/12HP)

**60 Pa**

## Top Class Low Operating Sound

Top class low operating sound is realized. Highly suited to densely populated areas thanks to their low operating sound.

Sound Power Level

**66 dB(A)**

**77 dB(A)**

**-11 dB(A)**

J-ⅢL (8 HP)

Current model (8 HP)

## Specifications

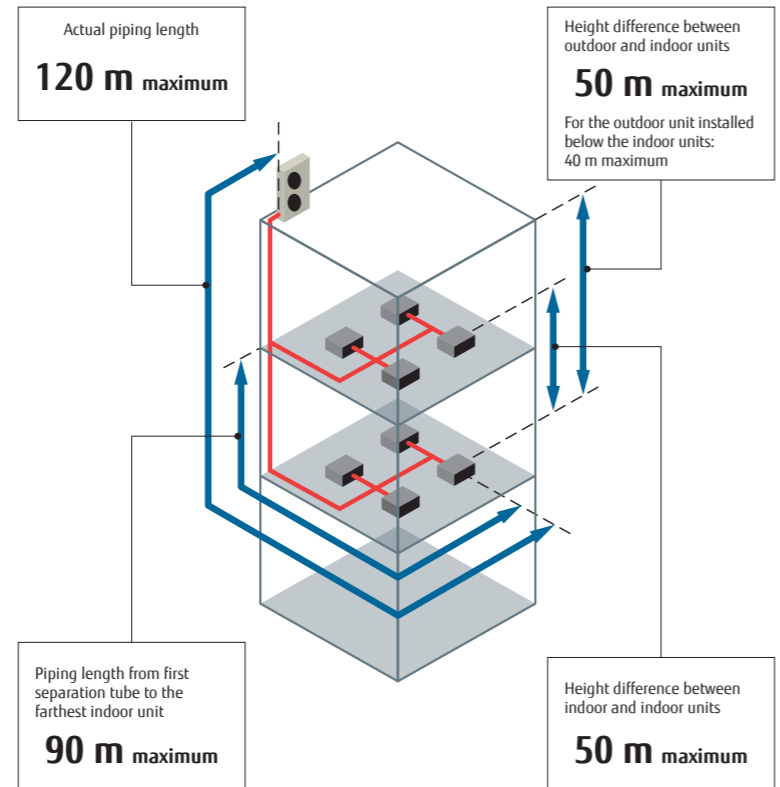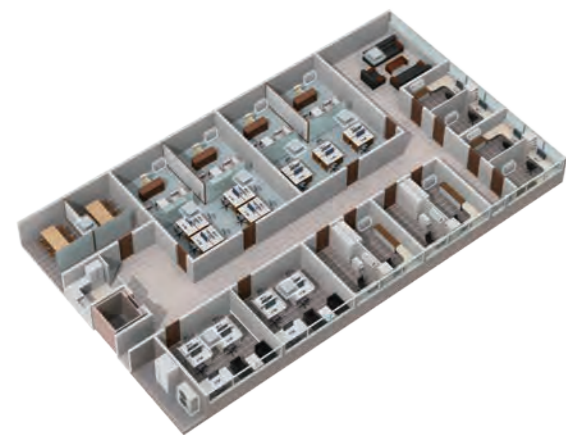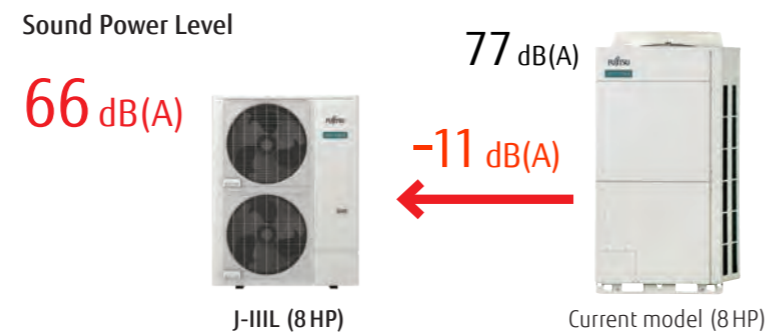| Rating Capacity range | | HP | 8 | 10 | 12 | 14 | 16 | 18 |
|---|---|---|---|---|---|---|---|---|
| Model name | | | AJY072LELAH | AJY090LELAH | AJY108LELAH | AJY126LELAH | AJY144LELAH | AJY162LELAH |
| Maximum Connectable Indoor Unit | | | 1-15 | 1-19 | 1-22 | 1-27 | 1-30 | 1-34 |
| Power source | | | 3 phase, ~400V, 50Hz | | | | | |
| Capacity | Cooling | kW | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.0 |
| | Heating | | 22.4 | 28.0 | 33.5 | 40.0 | 45.0 | 50.0 |
| Input power | Cooling | kW | 6.30 | 8.59 | 10.42 | 12.12 | 14.96 | 18.52 |
| | Heating | | 4.65 | 6.61 | 8.18 | 9.71 | 11.81 | 13.66 |
| EER | Cooling | W/W | 3.56 | 3.26 | 3.22 | 3.30 | 3.01 | 2.70 |
| COP | Heating | | 4.82 | 4.24 | 4.10 | 4.12 | 3.81 | 3.66 |
| Air flow rate | | m³/h | 8,400 | 9,000 | 11,000 | 13,000 | 14,000 | 14,800/15,300 |
| Sound pressure level / Power level | Cooling | dB (A) | 52 / 66 | 54 / 69 | 59 / 73 | 62 / 75 | 64 / 77 | 65/79 |
| | Heating | | 54 / - | 57 / - | 61 / - | 63 / - | 65 / - | 68 / - |
| Dimensions | Height | mm | 1,428 | 1,428 | 1,428 | 1,638 | 1,638 | 1,638 |
| | Width | | 1,080 | 1,080 | 1,080 | 1,080 | 1,080 | 1,080 |
| | Depth | | 480 | 480 | 480 | 480 | 480 | 480 |
| Weight | | kg | 170 | 177 | 178 | 213 | 213 | 217 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 7.0 (14.6) | 7.5 (15.7) | 7.5 (15.7) | 11.0 (22.9) | 11.0 (22.9) | 11.8 (24.6) |
| Connection pipe diameter | Liquid | mm | 9.52 | 9.52 | 12.70 | 12.70 | 12.70 | 12.70 |
| | Gas | | 19.05 | 22.20 | 28.58 | 28.58 | 28.58 | 28.58 |
| Total pipe length | | m | 400 | 400 | 400 | 400 | 400 | 400 |
| Max. Height difference | | | 50/40 (Outdoor unit: Upper/Lower) | | | | | |
| Operating range | Cooling | °C | -15 to 46 | -15 to 46 | -15 to 46 | -5 to 46* | -5 to 46* | -5 to 46* |
| | Heating | | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
* The cooling operation range of -15 to 46°C is allowed only when all of the indoor units connected to the system are higher than capacity of 5.6 kW.

## Dimensions

**Models : AJY072LELAH / AJY090LELAH / AJY108LELAH**

**Models : AJY126LELAH / AJY144LELAH / AJY162LELAH**

(Unit : mm)
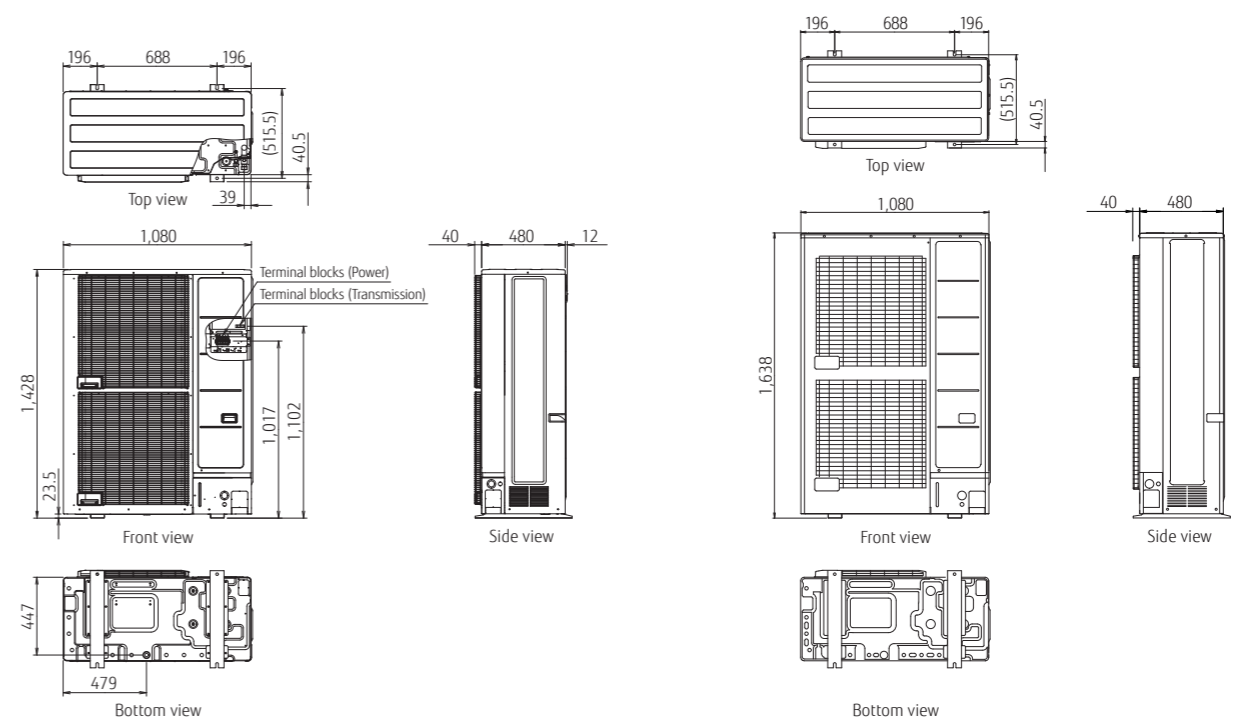
# HEAT PUMP TYPE
## VRF J-III Series

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

## System Outline

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

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

### Small Office
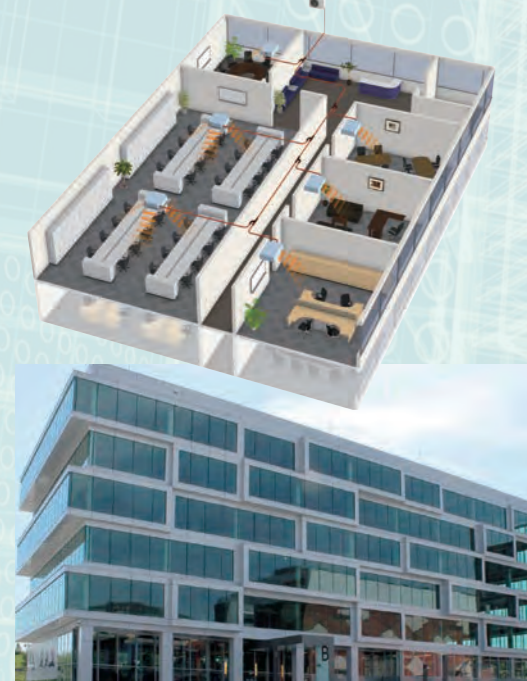


### System configuration example
- This system is used for small and medium-sized buildings. 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers.



Outdoor unit
Separation tube
Header
Indoor unit
Liquid pipe
Gas pipe
Indoor unit
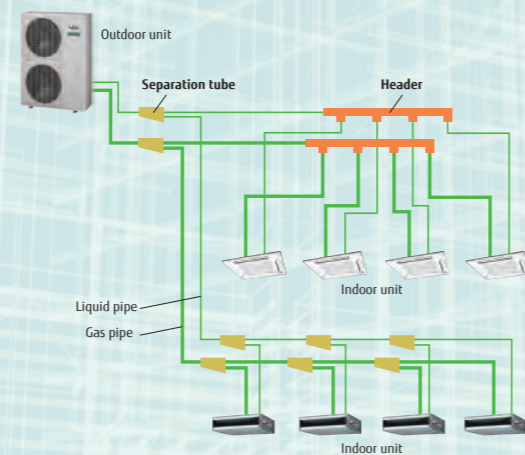
## Efficiency in actual operation
Top class high COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.

### 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

| | J-II | J-III | J-II | J-III |
|---|---|---|---|---|
| EER | 3.45 | 3.71 | | |
| COP | | | 3.95 | 4.23 |

8 % UP
7 % UP

## Advanced high efficiency technology

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

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

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



### DC inverter control
Efficiency is improved by mounting of new active filter module.

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



effect
Pressure
Cooling performance improved
Enthalpy

### DC twin rotary compressor
Efficiency in all load regions is good. Especially good performance from low to medium at normal operation.

High efficiency compressor motor
Optimized refrigerant flow design
Highly accurate parts



High
Compressor efficiency
DC Twin Rotary compressor
Compressor capacity
High

## 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

| | | | | | for Singapore | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Rating Capacity range | | HP | 4 | 5 | 6 | 4 | 5 | 6 | 4 | 5 | 6 |
| Model name | | | AJY040LBLAH | AJY045LBLAH | AJY054LBLAH | AJA040LBLAH | AJA045LBLAH | AJA054LBLAH | AJY040LELAH | AJY045LELAH | AJY054LELAH |
| Maximum Connectable Indoor Unit | | | 1-9 | 1-10 | 1-13 | 1-9 | 1-10 | 1-13 | 1-9 | 1-10 | 1-13 |
| Power source | | | Single phase, ~230V, 50Hz | | | Single phase, ~230V, 50Hz | | | 3 phase, ~400V, 50Hz | | |
| Capacity | Cooling | kW | 12.1 | 14.0 | 15.5 | 12.1 | 14.0 | 15.5 | 12.1 | 14.0 | 15.5 |
| | Heating | | 13.6 | 16.0 | 18.0 | 13.6 | 16.0 | 18.0 | 13.6 | 16.0 | 18.0 |
| Input power | Cooling | kW | 2.90 | 3.57 | 4.18 | 3.40 | 4.00 | 4.40 | 2.79 | 3.46 | 3.99 |
| | Heating | | 2.80 | 3.55 | 4.26 | 3.70 | 4.60 | 5.15 | 2.71 | 3.40 | 4.08 |
| EER | Cooling | W/W | 4.17 | 3.92 | 3.71 | 3.56 | 3.50 | 3.52 | 4.33 | 4.05 | 3.88 |
| COP | Heating | | 4.86 | 4.51 | 4.23 | 3.68 | 3.48 | 3.50 | 5.01 | 4.70 | 4.41 |
| Air flow rate | | m³/h | 6,200 | 6,400 | 6,900 | 6,200 | 6,400 | 6,900 | 6,200 | 6,400 | 6,900 |
| Sound pressure level / Power level | Cooling | dB (A) | 50 / 66 | 51 / 67 | 53 / 69 | 50 / 66 | 51 / 67 | 53 / 69 | 50 / 66 | 51 / 67 | 53 / 69 |
| | Heating | | 52 / 68 | 53 / 69 | 55 / 71 | 52 / 68 | 53 / 69 | 55 / 71 | 52 / 68 | 53 / 69 | 55 / 71 |
| Heat exchanger fin | | | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin |
| Dimensions | Height | mm | 1,334 | 1,334 | 1,334 | 1,334 | 1,334 | 1,334 | 1,334 | 1,334 | 1,334 |
| | Width | | 970 | 970 | 970 | 970 | 970 | 970 | 970 | 970 | 970 |
| | Depth | | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 | 370 |
| Weight | | kg | 117 | 117 | 119 | 117 | 117 | 117 | 118 | 119 | 119 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410 (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 4.8 (10.0) | 5.3 (11.1) | 5.3 (11.1) | 4.8 (10.0) | 5.3 (11.1) | 4.8 (10.0) | 4.8 (10.0) | 5.3 (11.1) | 5.3 (11.1) |
| Connection pipe diameter | Liquid | mm | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 |
| | Gas | | 15.88 | 15.88 | 19.05 | 15.88 | 15.88 | 15.88 | 15.88 | 15.88 | 19.05 |
| Total pipe length | | m | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| Max. Height difference | | | 50/40 (Outdoor unit: Upper/Lower) | | | 50/40 (Outdoor unit: Upper/Lower) | | | 50/40 (Outdoor unit: Upper/Lower) | | |
| Operating range | Cooling | °C | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 |
| | Heating | | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27℃DB / 19℃WB, and outdoor temperature of 35℃DB / 24℃WB.
Heating : Indoor temperature of 20℃DB / (15℃WB), and outdoor temperature of 7℃DB / 6℃WB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
The protective function may work when using it outside the operation range.

### Dimensions

Models : AJY040LBLAH / AJY045LBLAH / AJY054LBLAH / AJA040LBLAH / AJA045LBLAH / AJA054LBLAH / AJY040LELAH / AJY045LELAH / AJY054LELAH

(Unit : mm)

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

VRF SERIES

# HEAT PUMP TYPE
## VRF J-IIS Series

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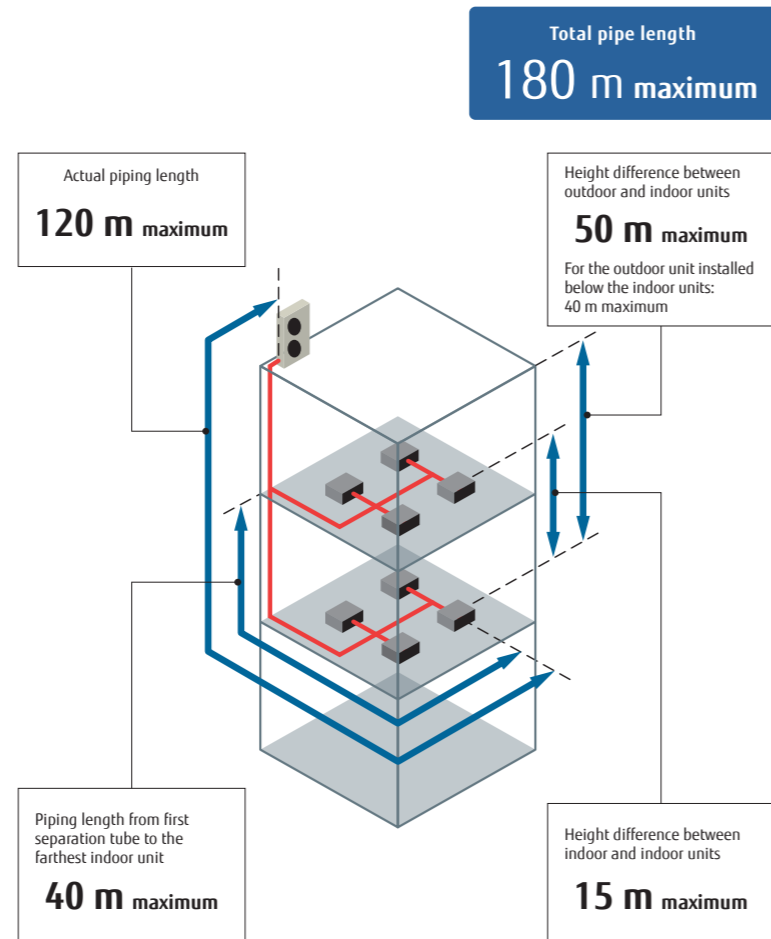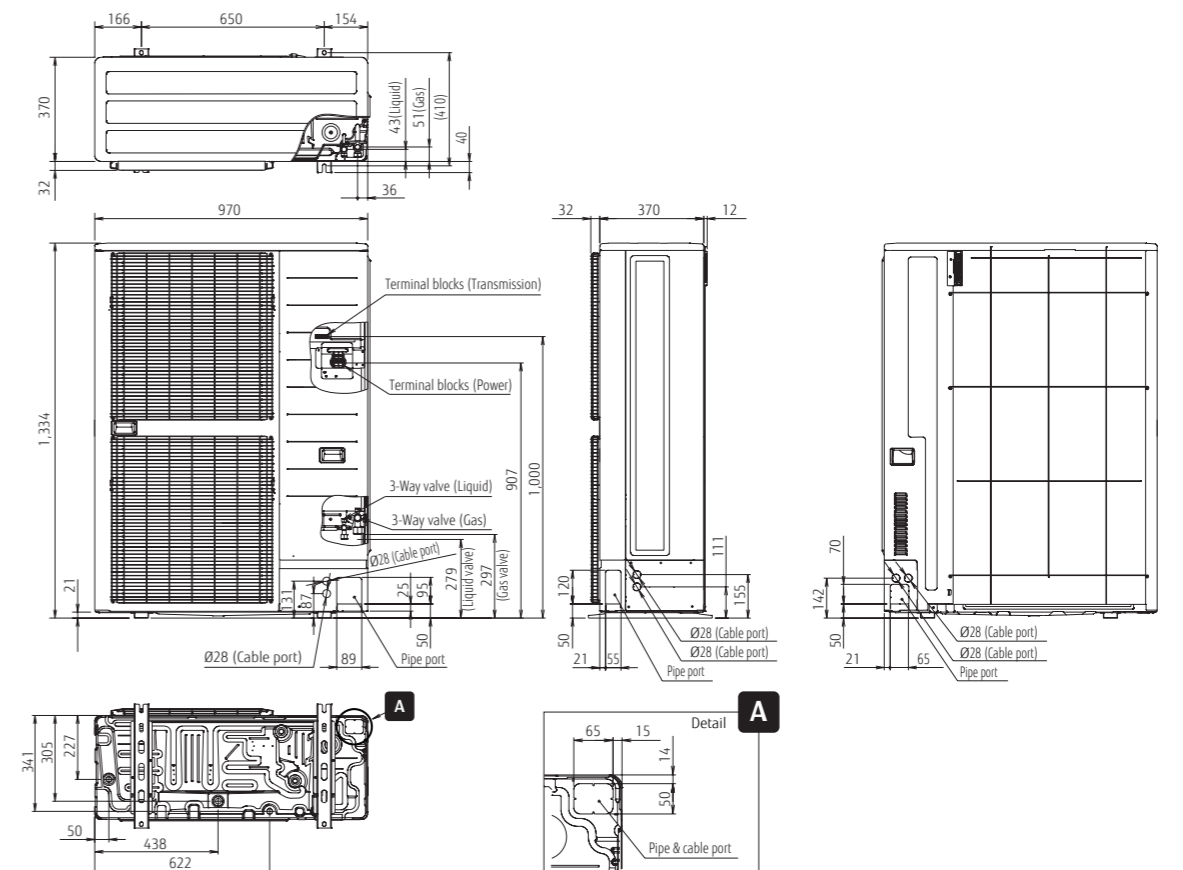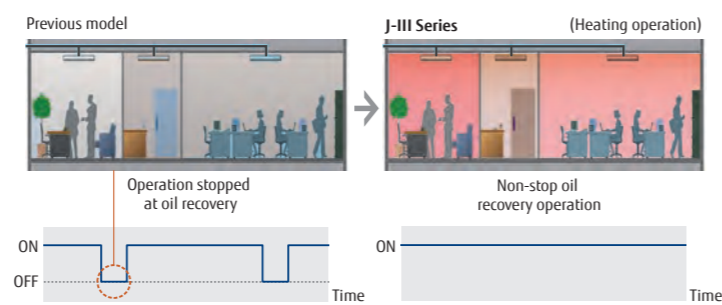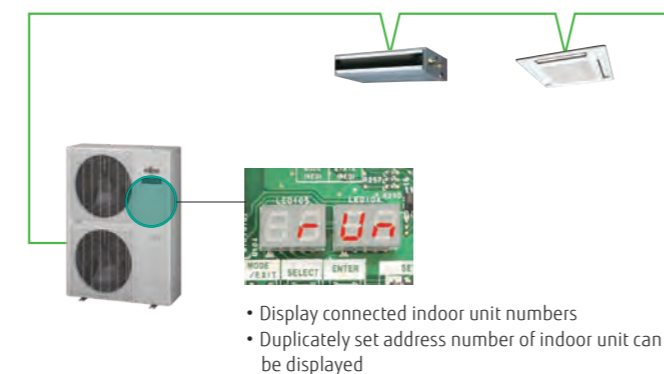
## System Outline

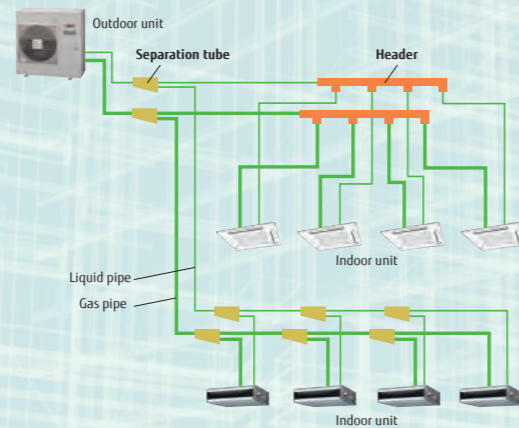**Space saving and low sound level design**

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

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

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

**Large Homes**

**System configuration example**

- Outdoor unit
- Separation tube
- Header
- Liquid pipe
- Gas pipe
- Indoor unit
- Indoor unit

## It Can be Easily Carried and Installed Obscure Place

Current model / 6HP class
Height:1334 mm
Weight:117 kg

Model / 6HP class

Height difference
**998** mm
▲25%
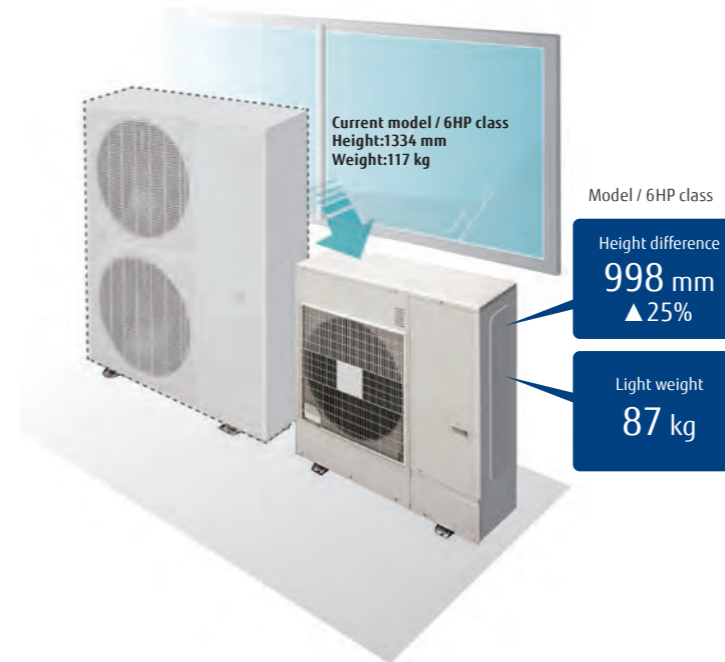
Light weight
**87** kg

## Small and light weight outdoor unit

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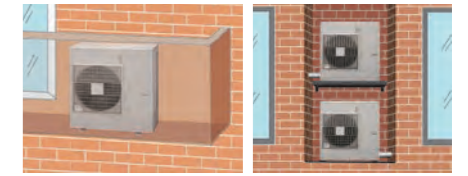
## Low sound level design

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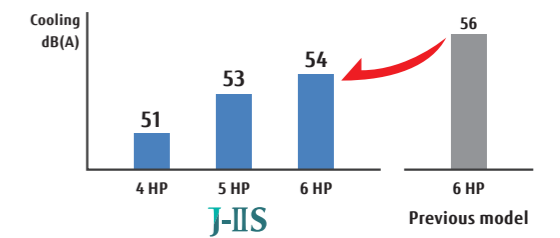
Cooling dB(A)

| 4 HP | 5 HP | 6 HP | 6 HP |
|------|------|------|------|
| 51 | 53 | 54 | 56 |

J-IIS          Previous model

## Advanced high efficiency technology

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

**DC fan motor**
Miniaturized, low noise, high
efficiency, multi-stage DC fan
motor is mounted.
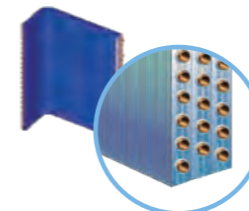
**Large heat exchanger**
Heat exchange performance is
substantially improved by
mounting of 3-row large heat
exchanger.

High heat transfer
copper tube (Improved
lead angle)

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

**DC inverter control**
Efficiency is improved by mounting of
new active filter module.

- Low noise rubber
- High efficiency compressor motor
- Optimized refrigerant flow design
- Highly accurate parts
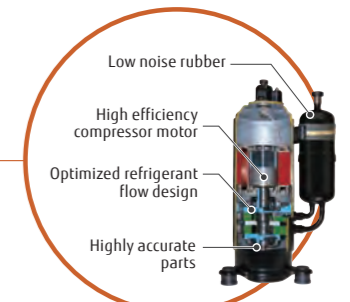
**Compact and
high performance
DC twin rotary compressor**

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

High

Compressor efficiency

Compressor capacity    **100%**    High

VRF SERIES

## Long Piping Length

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

**Total pipe length**
**80 m maximum**

Actual piping length
**50 m maximum**

Height difference between outdoor and indoor units
**30 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-IIS Series     (Heating operation)

*1

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

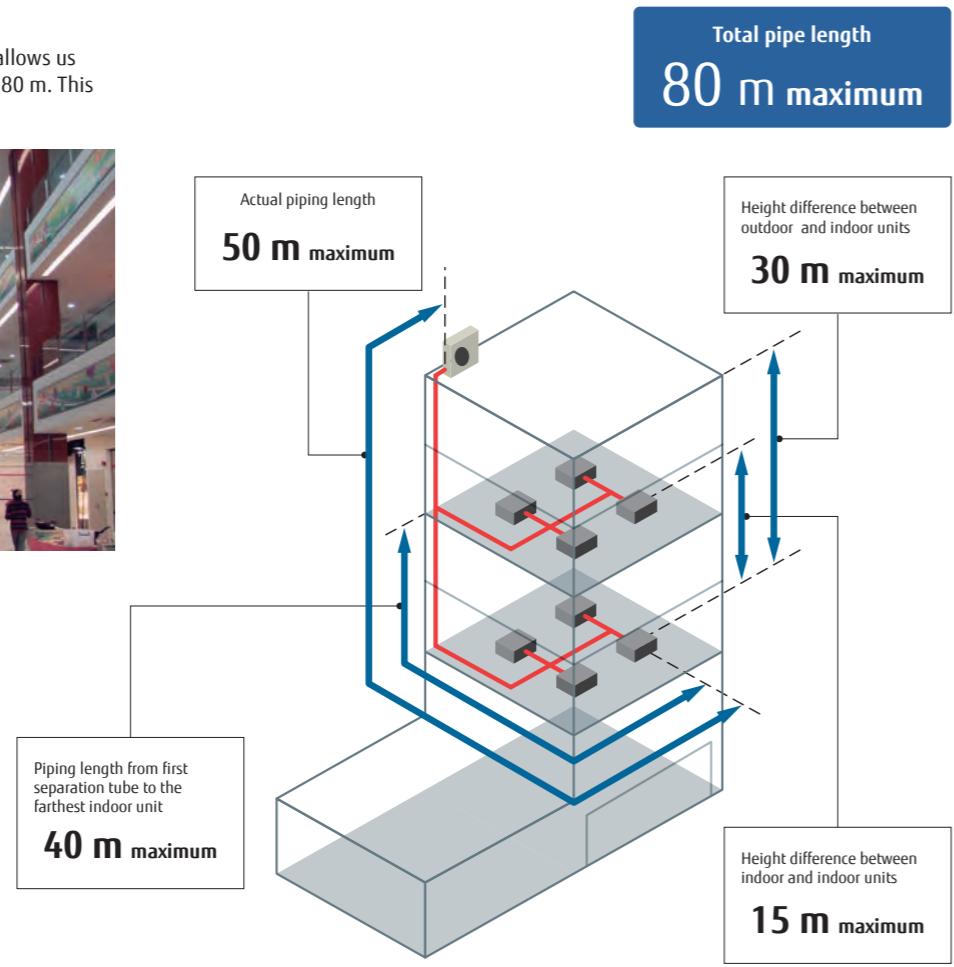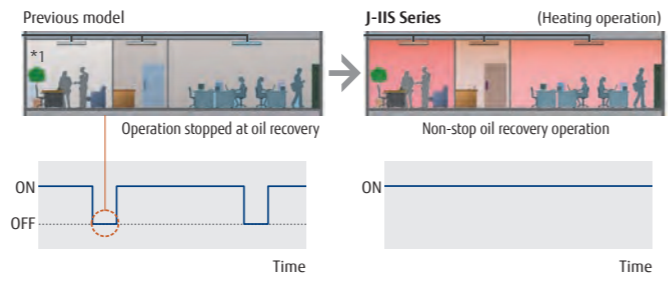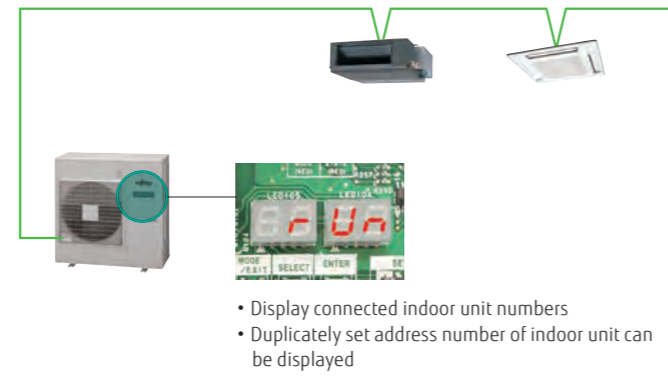| Rating Capacity range | | HP | 4 | 5 | 6 |
|---|---|---|---|---|---|
| Model name | | | AJY040LCLAH | AJY045LCLAH | AJY054LCLAH |
| Maximum Connectable Indoor Unit | | | 7 | 8 | 8 |
| Power source | | | Single phase, ~230V, 50Hz | | |
| Capacity | Cooling | kW | 12.1 | 14.0 | 15.1 |
| | Heating | | 13.6 | 16.0 | 16.5 |
| Input power | Cooling | kW | 3.44 | 4.43 | 5.03 |
| | Heating | | 3.09 | 3.93 | 4.11 |
| EER | Cooling | W/W | 3.52 | 3.16 | 3.00 |
| COP | Heating | | 4.40 | 4.07 | 4.01 |
| Air flow rate | | m3/h | 4,040 | 4,200 | 4,200 |
| Sound pressure level / Power level | Cooling | dB (A) | 51 / 67 | 53 / 69 | 54 / 70 |
| | Heating | | 54 / 68 | 55 / 69 | 56 / 70 |
| Heat exchanger fin | | | Blue fin | Blue fin | Blue fin |
| Dimensions | Height | mm | 998 | 998 | 998 |
| | Width | | 970 | 970 | 970 |
| | Depth | | 370 | 370 | 370 |
| Weight | | kg | 86 | 86 | 87 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 4.0 (8.4) | 4.0 (8.4) | 4.0 (8.4) |
| Connection pipe diameter | Liquid | mm | 9.52 | 9.52 | 9.52 |
| | Gas | | 15.88 | 15.88 | 15.88 |
| Total pipe length | | m | 80 | 80 | 80 |
| Max. Height difference | | | 30 | 30 | 30 |
| Operating range | Cooling | °C | -5 to 46 | -5 to 46 | -5 to 46 |
| | Heating | | -20 to 21 | -20 to 21 | -20 to 21 |

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
The protective function may work when using it outside the operation range.

## Dimensions

**Models :** AJY040LCLAH / AJY045LCLAH / AJY054LCLAH       (Unit : mm)

Top view

Front view

Side view

Rear view

Bottom view

Detail A

VRF SERIES
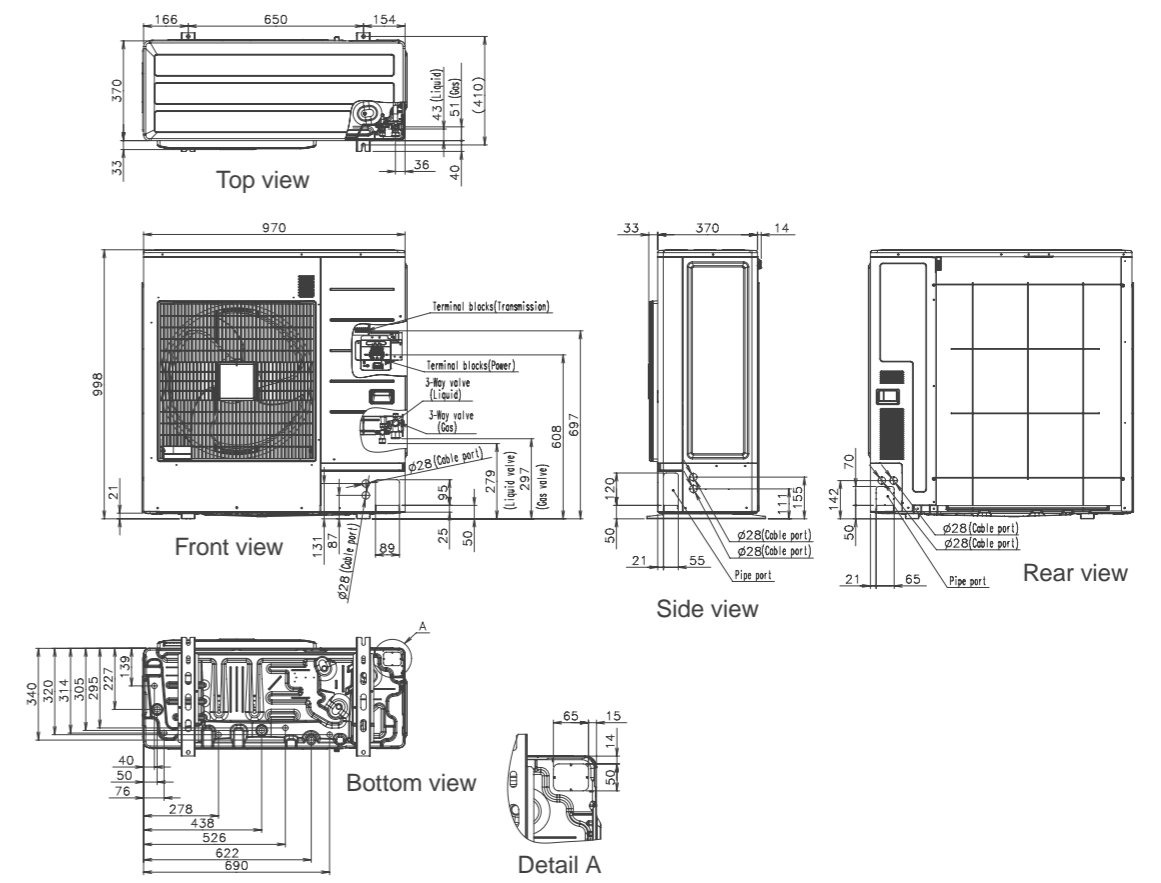
# HEAT PUMP TYPE
## VRF V-III Series

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

## System Outline

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

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

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

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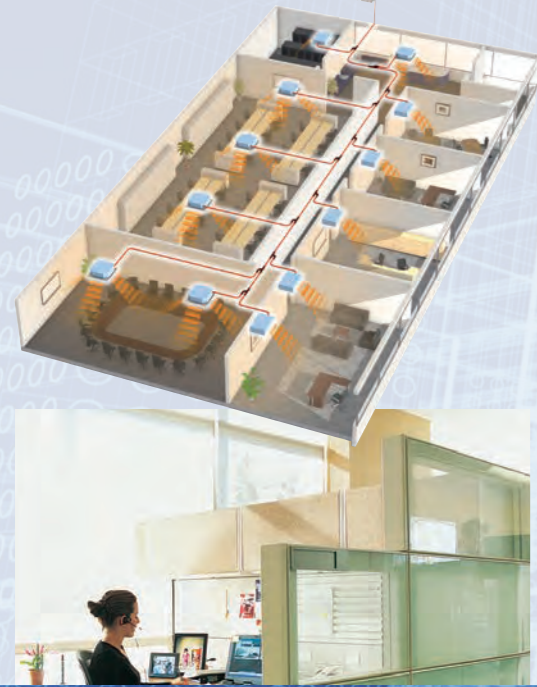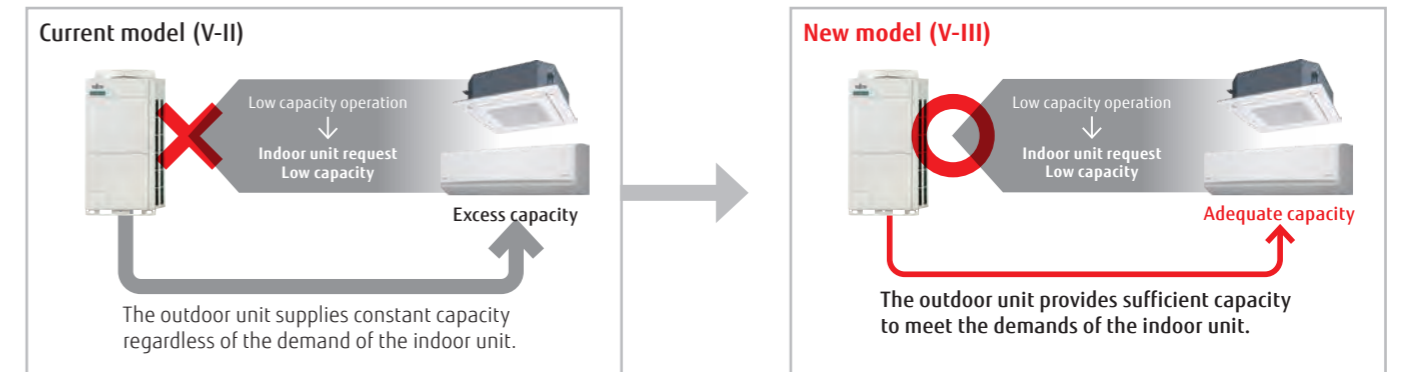
**System configuration example**
- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.

Outdoor unit
Separation tube
Header
Liquid pipe
Gas pipe
Indoor unit
Indoor unit
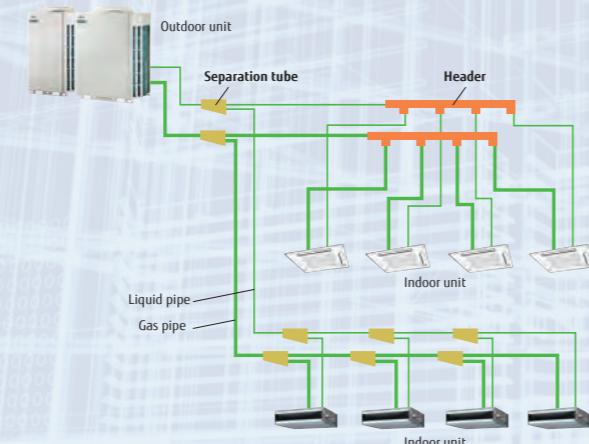
## New intelligent refrigerant control

Fujitsu General is proposing outdoor units equipped with refrigerant control function.
The refrigerant control operates with subtle control corresponding to the heat load of the room and offers a more comfortable environment.
The refrigerant control can also provide increased energy savings.

**Current model (V-II)**

Low capacity operation
↓
Indoor unit request
Low capacity
Excess capacity

The outdoor unit supplies constant capacity regardless of the demand of the indoor unit.

**New model (V-III)**

Low capacity operation
↓
Indoor unit request
Low capacity
Adequate capacity

The outdoor unit provides sufficient capacity to meet the demands of the indoor unit.

* The improvements due to the control and the actual sine wave vary depending on the combination of the indoor unit and system operating conditions.

### Efficiency in actual operating conditions

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)
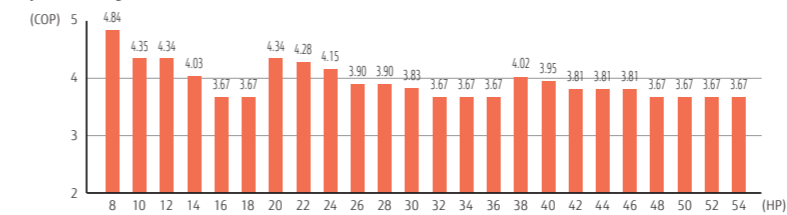
Energy efficiency combination
(COP)
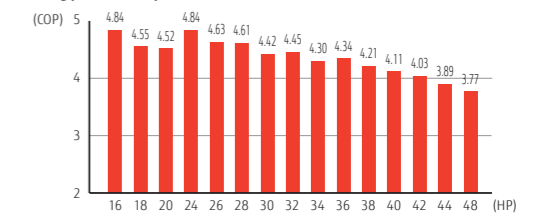
* These specifications are determined by Cassette combination.

## Energy saving technology that boosted operation efficiency

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

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

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

**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.

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

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

0.1Hz
Capacity
Inverter frequency

**Front intake port** (corner cut air inhaling structure)

• Combinations other than the followings are not recommended.

**V-III**

## Space saving combinations

| 22.4kW (8HP) | 28.0kW (10HP) | 33.5kW (12HP) | 40.0kW (14HP) | 45.0kW (16HP) |
|---|---|---|---|---|
| AJY072LALBH<br>UNIT : AJY072LALBH | AJY090LALBH<br>UNIT : AJY090LALBH | AJY108LALBH<br>UNIT : AJY108LALBH | AJY126LALBH<br>UNIT : AJY126LALBH | AJY144LALBH<br>UNIT : AJY144LALBH |
| 50.0 kW (18HP) | 56.0kW (20HP) | 62.4 kW (22HP) | 68.0 kW (24HP) | 73.0 kW (26HP) |
| AJY162LALBH<br>UNIT : AJY162LALBH | AJY180LALBH<br>UNIT : AJY090/090LALBH | AJY198LALBH<br>UNIT : AJY126/072LALBH | AJY216LALBH<br>UNIT : AJY126/090LALBH | AJY234LALBH<br>UNIT : AJY144/090LALBH |
| 78.0 kW (28HP) | 85.0 kW (30HP) | 90.0 kW (32HP) | 95.0 kW (34HP) | 100.0 kW (36HP) |
| AJY252LALBH<br>UNIT : AJY162/090LALBH | AJY270LALBH<br>UNIT : AJY144/126LALBH | AJY288LALBH<br>UNIT : AJY144/144LALBH | AJY306LALBH<br>UNIT : AJY162/144LALBH | AJY324LALBH<br>UNIT : AJY162/162LALBH |
| 106.0 kW (38HP) | 113.0 kW (40HP) | 118.0 kW (42HP) | 123.0 kW (44HP) | 128.0 kW (46HP) |
| AJY342LALBH<br>UNIT : AJY162/090/090LALBH | AJY360LALBH<br>UNIT : AJY144/126/090LALBH | AJY378LALBH<br>UNIT : AJY144/144/090LALBH | AJY396LALBH<br>UNIT : AJY162/144/090LALBH | AJY414LALBH<br>UNIT : AJY162/162/090LALBH |
| 135.0 kW (48HP) | 140.0 kW (50HP) | 145.0 kW (52HP) | 150.0 kW (54HP) | |
| AJY432LALBH<br>UNIT : AJY144/144/144LALBH | AJY450LALBH<br>UNIT : AJY162/144/144LALBH | AJY468LALBH<br>UNIT : AJY162/162/144LALBH | AJY486LALBH<br>UNIT : AJY162/162/162LALBH | |

## Energy efficiency combinations

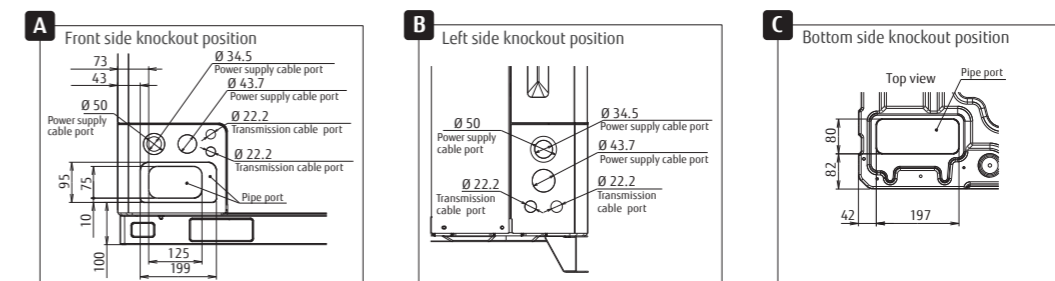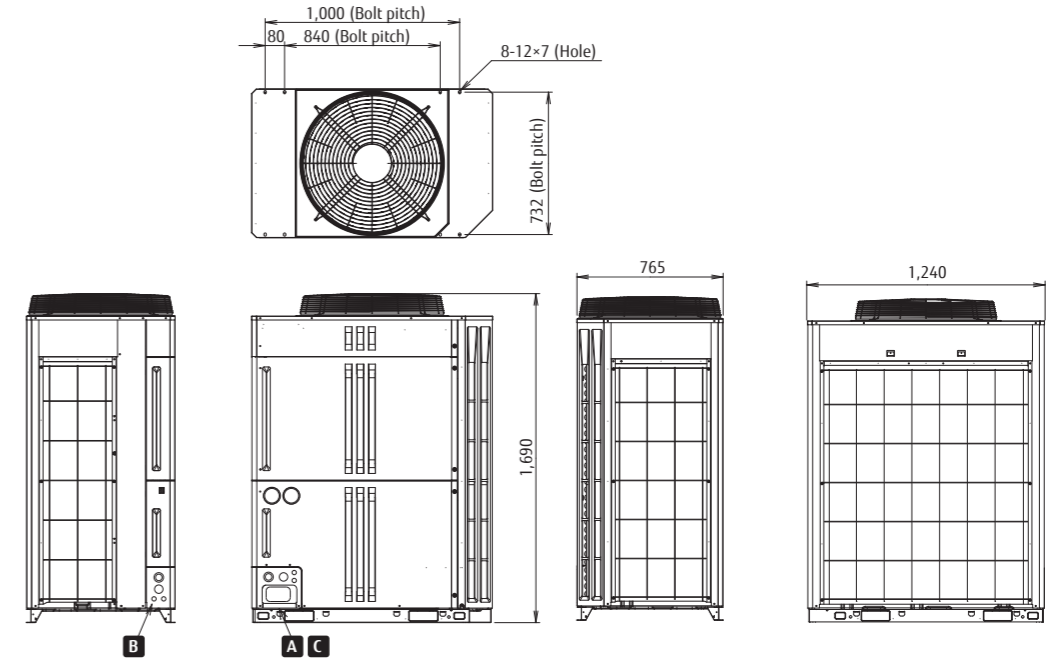| 44.8 kW (16HP) | 50.4kW (18HP) | 55.9 kW (20HP) | 67.2 kW (24HP) | 72.8 kW (26HP) |
|---|---|---|---|---|
| AJY144LALBHH<br>UNIT : AJY072/072LALBH | AJY162LALBHH<br>UNIT : AJY090/072LALBH | AJY180LALBHH<br>UNIT : AJY108/072LALBH | AJY216LALBHH<br>UNIT : AJY072/072/072LALBH | AJY234LALBHH<br>UNIT : AJY090/072/072LALBH |
| 78.3 kW (28HP) | 84.8 kW (30HP) | 89.4 kW (32HP) | 95.9 kW (34HP) | 100.5 kW (36HP) |
| AJY252LALBHH<br>UNIT : AJY108/072/072LALBH | AJY270LALBHH<br>UNIT : AJY126/072/072LALBH | AJY288LALBHH<br>UNIT : AJY108/108/072LALBH | AJY306LALBHH<br>UNIT : AJY126/108/072LALBH | AJY324LALBHH<br>UNIT : AJY108/108/108LALBH |
| 107.0 kW (38HP) | 113.5 kW (40HP) | 120.0 kW (42HP) | 125.0 kW (44HP) | 130.0 kW (46HP) |
| AJY342LALBHH<br>UNIT : AJY126/108/108LALBH | AJY360LALBHH<br>UNIT : AJY126/126/108LALBH | AJY378LALBHH<br>UNIT : AJY126/126/126LALBH | AJY396LALBHH<br>UNIT : AJY144/126/108LALBH | AJY414LALBHH<br>UNIT : AJY144/144/126LALBH |

## Dimensions

**8,10HP :** AJY072LALBH / AJY090LALBH (Unit : mm)
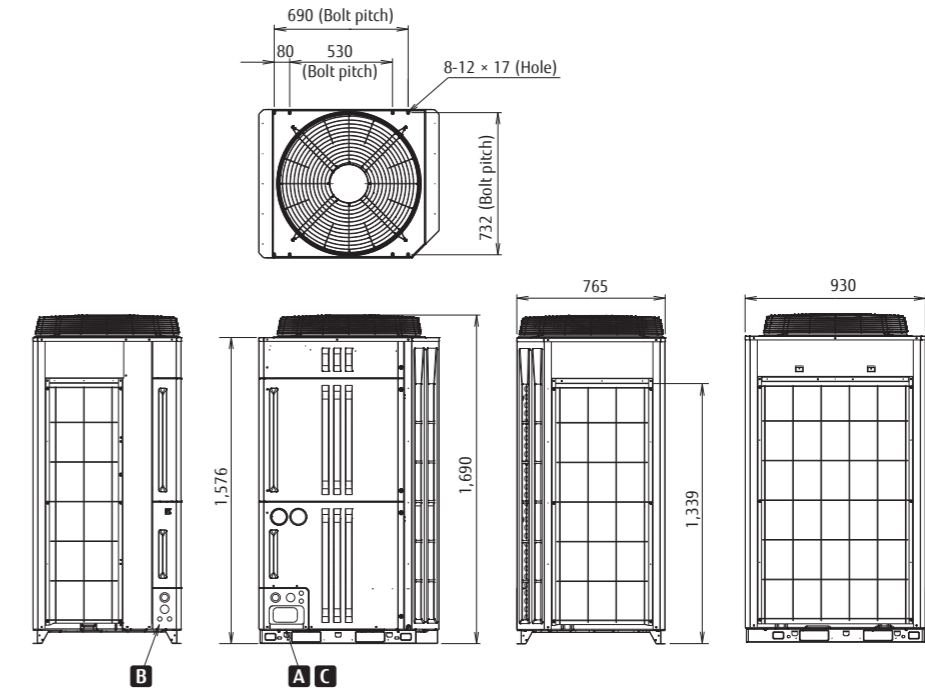
**12,14,16,18HP :** AJY108LALBH / AJY126LALBH / AJY144LALBH / AJY162LALBH (Unit : mm)

# Outdoor units specifications

## Space Saving Combinations

| Rating Capacity range | | HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model name | | | AJY072LALBH | AJY090LALBH | AJY108LALBH | AJY126LALBH | AJY144LALBH | AJY162LALBH | AJY180LALBH | AJY198LALBH | AJY216LALBH | AJY234LALBH | AJY252LALBH | AJY270LALBH | AJY288LALBH | AJY306LALBH | AJY324LALBH | AJY342LALBH | AJY360LALBH | AJY378LALBH | AJY396LALBH | AJY414LALBH | AJY432LALBH | AJY450LALBH | AJY468LALBH | AJY486LALBH |
| Unit 1 | | | AJY072LALBH | AJY090LALBH | AJY108LALBH | AJY126LALBH | AJY144LALBH | AJY162LALBH | AJY090LALBH | AJY126LALBH | AJY126LALBH | AJY144LALBH | AJY162LALBH | AJY144LALBH | AJY144LALBH | AJY162LALBH | AJY162LALBH | AJY162LALBH | AJY144LALBH | AJY144LALBH | AJY162LALBH | AJY162LALBH | AJY162LALBH | AJY162LALBH | AJY162LALBH | AJY162LALBH |
| Unit 2 | | | | | | | | | AJY090LALBH | AJY072LALBH | AJY090LALBH | AJY090LALBH | AJY090LALBH | AJY126LALBH | AJY144LALBH | AJY144LALBH | AJY162LALBH | AJY090LALBH | AJY126LALBH | AJY144LALBH | AJY144LALBH | AJY144LALBH | AJY144LALBH | AJY144LALBH | AJY162LALBH | AJY162LALBH |
| Unit 3 | | | | | | | | | | | | | | | | | | AJY090LALBH | AJY090LALBH | AJY090LALBH | AJY090LALBH | AJY144LALBH | AJY144LALBH | AJY144LALBH | AJY162LALBH | AJY162LALBH |
| Maximum Connectable Indoor Unit*1 | | | 17 | 21 | 26 | 30 | 34 | 39 | 43 | 47 | 52 | 56 | 60 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| Indoor unit connectable capacity | Cooling | kW | 11.2-33.6 | 14.0-42.0 | 16.8-50.2 | 20.0-60.0 | 22.5-67.5 | 25.0-67.5 | 28.0-84.0 | 31.2-93.6 | 34.0-102.0 | 36.5-109.5 | 39.0-109.5 | 42.5-127.5 | 45.0-135.0 | 47.5-135.0 | 50.0-135.0 | 53.0-151.5 | 56.5-169.5 | 59.0-177.0 | 61.5-177.0 | 64.0-177.0 | 67.5-202.5 | 70.0-202.5 | 72.5-202.5 | 75.0-202.5 |
| Power source | | | 3 phase 4 wire, 400 V, 50Hz | | | | | | | | | | | | | | | | 3 phase 4 wire, 400 V, 50Hz | | | | | | | | |
| 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 | | 25.0 | 31.5 | 37.5 | 45.0 | 50.0 | 50.0 | 63.0 | 70.0 | 76.5 | 81.5 | 81.5 | 95.0 | 100.0 | 100.0 | 100.0 | 113.0 | 126.5 | 131.5 | 131.5 | 131.5 | 150.0 | 150.0 | 150.0 | 150.0 |
| Input power | 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 | 31.25 | 33.30 | 36.85 | 40.40 | 39.03 | 42.58 | 46.13 | 49.68 |
| | Heating | | 5.17 | 7.25 | 8.65 | 11.17 | 13.63 | 13.63 | 14.50 | 16.34 | 18.42 | 20.88 | 20.88 | 24.80 | 27.26 | 27.26 | 27.26 | 28.13 | 32.05 | 34.51 | 34.51 | 34.51 | 40.89 | 40.89 | 40.89 | 40.89 |
| 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 | | 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 | 3.95 | 3.81 | 3.81 | 3.81 | 3.81 | 3.67 | 3.67 | 3.67 | 3.67 |
| Air flow rate | High | m³/h | 11,100 | 11,100 | 13,000 | 13,000 | 13,700 | 13,700 | 11,100×2 | 13,000+11,100 | 13,000+11,100 | 13,700+11,100 | 13,700+11,100 | 13,700+13,000 | 13,700×2 | 13,700×2 | 13,700×2 | 13,700+11,100×2 | 13,700×13,000+11,100 | 13,700×2+11,100 | 13,700×2+11,100 | 13,700×2+11,100 | 13,700×3 | 13,700×3 | 13,700×3 | 13,700×3 |
| Sound pressure level*2 / Power level | Cooling | dB (A) | 56 / 77 | 58 / 79 | 57 / 78 | 60 / 81 | 62 / 83 | 63 / 84 | 61 / 82 | 61 / 82 | 62 / 83 | 63 / 84 | 64 / 85 | 64 / 85 | 65 / 88 | 66 / 87 | 66 / 87 | 65 / 86 | 65 / 86 | 66 / 87 | 66 / 87 | 67 / 87 | 67 / 88 | 67 / 88 | 67 / 88 | 68 / 89 |
| | Heating | | 58 / 80 | 59 / 81 | 60 / 83 | 62 / 84 | 64 / 86 | 64 / 86 | 62 / 84 | 63 / 85 | 64 / 86 | 65 / 87 | 65 / 87 | 66 / 88 | 67 / 89 | 67 / 89 | 67 / 89 | 66 / 88 | 67 / 89 | 68 / 90 | 68 / 90 | 68 / 90 | 69 / 91 | 69 / 91 | 69 / 91 | 69 / 91 |
| 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 | 11.0 | 11.0 | 11.0 | 11.0 | 7.5×2 | 11.0+7.5 | 11.0+7.5 | 11.0+7.5 | 11.0+7.5 | 11.0×2 | 11.0×2 | 11.0×2 | 11.0×2 | 11.0+7.5×2 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×3 | 11.0×3 | 11.0×3 | 11.0×3 |
| Heat exchanger fin | | | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin |
| Dimensions | Height | mm | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 |
| | Width | | 930 | 930 | 1,240 | 1,240 | 1,240 | 1,240 | 930×2 | 1,240+930 | 1,240+930 | 1,240+930 | 1,240+930 | 1,240×2 | 1,240×2 | 1,240×2 | 1,240×2 | 1,240+930×2 | 1,240×2+930 | 1,240×2+930 | 1,240×2+930 | 1,240×2+930 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 |
| | Depth | | 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 | 252 | 252 | 275 | 275 | 275 | 275 | 252×2 | 275+252 | 275+252 | 275+252 | 275+252 | 275×2 | 275×2 | 275×2 | 275×2 | 275+252×2 | 275×2+252 | 275×2+252 | 275×2+252 | 275×2+252 | 275×3 | 275×3 | 275×3 | 275×3 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 11.7 (24.4) | 11.7 (24.4) | 11.8 (24.6) | 11.8 (24.6) | 11.8 (24.6) | 11.8 (24.6) | 11.7×2 (24.4×2) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8+11.7×2 (24.6+24.4×2) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) |
| 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 | | 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 | °C | -15 to 46 | -15 to 46 | -15 to 46 | -15 to 46 | -15 to 46 | -15 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 |
| | Heating | | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

## Energy Efficiency Combinations

| Rating Capacity range | | HP | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model name | | | AJY144LALBHH | AJY162LALBHH | AJY180LALBHH | AJY216LALBHH | AJY234LALBHH | AJY252LALBHH | AJY270LALBHH | AJY288LALBHH | AJY306LALBHH | AJY324LALBHH | AJY342LALBHH | AJY360LALBHH | AJY378LALBHH | AJY396LALBHH | AJY414LALBHH |
| Unit 1 | | | AJY072LALBH | AJY090LALBH | AJY108LALBH | AJY108LALBH | AJY108LALBH | AJY126LALBH | AJY090LALBH | AJY108LALBH | AJY108LALBH | AJY108LALBH | AJY108LALBH | AJY126LALBH | AJY126LALBH | AJY144LALBH | AJY144LALBH |
| Unit 2 | | | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY108LALBH | AJY108LALBH | AJY108LALBH | AJY126LALBH | AJY126LALBH | AJY126LALBH | AJY144LALBH |
| Unit 3 | | | | | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY072LALBH | AJY108LALBH | AJY108LALBH | AJY108LALBH | AJY126LALBH | AJY126LALBH | AJY126LALBH |
| Maximum Connectable Indoor Unit*1 | | | 34 | 39 | 43 | 52 | 56 | 60 | 64 | 64 | 64 | | | 64 | 64 | 64 | 64 |
| Indoor unit connectable capacity | Cooling | kW | 22.4-67.2 | 25.2-75.6 | 28.0-83.8 | 33.6-100.8 | 36.4-109.2 | 39.2-117.4 | 42.4-127.2 | 44.7-134.1 | 48.0-143.8 | 50.3-150.7 | 53.5-160.5 | 56.8-170.2 | 60.0-180.0 | 62.5-187.5 | 65.0-195.0 |
| Power source | | | 3 phase 4 wire, 400 V, 50Hz | | | | | | | | | | | 3 phase 4 wire, 400 V, 50Hz | | | |
| 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 | | 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 |
| 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 | | 10.34 | 12.42 | 13.82 | 15.51 | 17.59 | 18.99 | 21.51 | 22.47 | 24.99 | 25.95 | 28.47 | 30.99 | 33.51 | 35.97 | 38.43 |
| EER | Cooling | W/W | 4.31 | 4.04 | 3.95 | 4.31 | 4.12 | 4.04 | 3.97 | 3.87 | 3.82 | 3.74 | 3.70 | 3.68 | 3.65 | 3.58 | 3.52 |
| COP | Heating | | 4.84 | 4.55 | 4.52 | 4.84 | 4.63 | 4.61 | 4.42 | 4.45 | 4.30 | 4.34 | 4.21 | 4.11 | 4.03 | 3.89 | 3.77 |
| Air flow rate | High | m³/h | 11,100×2 | 11,100×2 | 13,000+11,100 | 11,100×3 | 11,000×3 | 13,000+11,100×2 | 13,000+11,100×2 | 13,000×2+11,100 | 13,000×2+11,100 | 13,000×3 | 13,000×3 | 13,000×3 | 13,000×3 | 13,700×13,000×2 | 13,700×2+13,000 |
| Sound pressure level*2 / Power level | Cooling | dB (A) | 59 / 80 | 60 / 81 | 60 / 81 | 61 / 82 | 62 / 83 | 61 / 82 | 63 / 84 | 61 / 82 | 63 / 84 | 64 / 83 | 64 / 84 | 64 / 85 | 65 / 88 | 66 / 87 | 66 / 87 |
| | Heating | | 61 / 83 | 62 / 84 | 62 / 85 | 63 / 85 | 63 / 85 | 64 / 86 | 65 / 87 | 64 / 87 | 65 / 88 | 66 / 88 | 66 / 88 | 66 / 88 | 67 / 89 | 68 / 90 | 68 / 90 |
| 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 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 |
| | Width | | 930×2 | 930×2 | 1,240+930 | 930×3 | 930×3 | 1,240+930×2 | 1,240+930×2 | 1,240×2+930 | 1,240×2+930 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 |
| | Depth | | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 |
| Weight | | kg | 252×2 | 252×2 | 275+252 | 252×3 | 252×3 | 275+252×2 | 275+252×2 | 275×2+252 | 275×2+252 | 275×3 | 275×3 | 275×3 | 275×3 | 275×3 | 275×3 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 11.7×2 (24.4×2) | 11.7×2 (24.4×2) | 11.8+11.7 (24.6+24.4) | 11.7×3 (24.4×3) | 11.7×3 (24.4×3) | 11.8+11.7×2 (24.6+24.4×2) | 11.8+11.7×2 (24.6+24.4×2) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) |
| Connection pipe diameter | Liquid | mm | 12.70 | 15.88 | 15.88 | 15.88 | 15.88 | 15.88 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 | 19.05 |
| | Discharge Gas | | 28.58 | 28.58 | 28.58 | 34.92 | 34.92 | 34.92 | 34.92 | 34.92 | 34.92 | 41.27 | 41.27 | 41.27 | 41.27 | 41.27 | 41.27 |
| Operating range | Cooling | °C | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 | -5 to 46 |
| | Heating | | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

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

*1 : Minimum connectable indoor unit number is 2.
However ARXC72 and ARXC90 can be used signal connection.
*2 : The noise value is the value when measured in an anechoic room.
When measured in the actual installed state, surrounding noise and reflections are
received and the measured value is usually larger than the indicated value.

# HEAT PUMP TYPE

## VRF V-III Tropical Series

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

## System Outline

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

Up to 52°C

Cooling operation range

52  50        40        30
Outdoor temperature (°C)
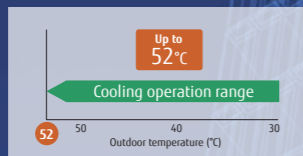
### Powerful cooling capacity design
Keeping high cooling power at even high ambient temperature

Cooling capacity (kW)
35°C ambient temp.
46°C ambient temp.
8HP    10HP    14HP
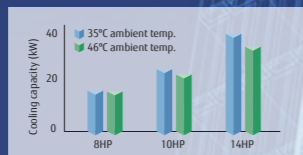
### Anti-corrosion treatment design
All metalic and PCB components are protected against corrosion

### Large Office

### 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

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## Efficiency in actual operation

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

**Space saving combination**

(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

8  10  12  14  16  18  20  22  24*  26  28  30  32  34  36  38  40  42  44  46  48  50  52  54  (HP)

**Energy efficiency combination**

(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

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

**\* : 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* technology, a newly designed fan achieves high performance and low noise operation. *CFD: Computational Fluid Dynamics

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

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

**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.

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

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

0.1Hz
Capacity
Inverter frequency

**Front intake port** (corner cut air inhaling structure)
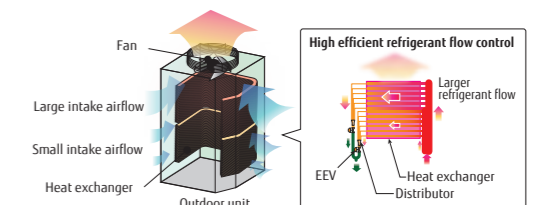
## Advanced energy saving control

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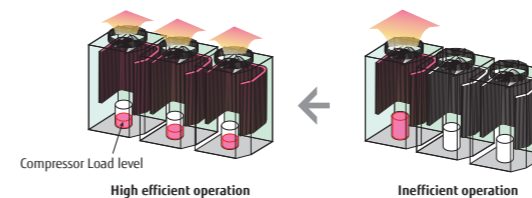
### Heat exchanger refrigerant control
The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.

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

67

## Space saving combinations

| 22.4kW (8HP) | 28.0kW (10HP) | 33.5kW (12HP) | 40.0kW (14HP) | 45.0kW (16HP) |
|---|---|---|---|---|
| AJY072LNTCH<br>UNIT : AJY072LNTCH | AJY090LNTCH<br>UNIT : AJY090LNTCH | AJY108LNTCH<br>UNIT : AJY108LNTCH | AJY126LNTCH<br>UNIT : AJY126LNTCH | AJY144LNTCH<br>UNIT : AJY144LNTCH |
| 50.0 kW (18HP) | 56.0kW (20HP) | 62.4 kW (22HP) | 68.0 kW (24HP) | 73.0 kW (26HP) |
| AJY162LNTCH<br>UNIT : AJY162LNTCH | AJY180LNTCH<br>UNIT : AJY090/090LNTCH | AJY198LNTCH<br>UNIT : AJY126/072LNTCH | AJY216LNTCH<br>UNIT : AJY126/090LNTCH | AJY234LNTCH<br>UNIT : AJY144/090LNTCH |
| 78.0 kW (28HP) | 85.0 kW (30HP) | 90.0 kW (32HP) | 95.0 kW (34HP) | 100.0 kW (36HP) |
| AJY252LNTCH<br>UNIT : AJY162/090LNTCH | AJY270LNTCH<br>UNIT : AJY144/126LNTCH | AJY288LNTCH<br>UNIT : AJY144/144LNTCH | AJY306LNTCH<br>UNIT : AJY162/144LNTCH | AJY324LNTCH<br>UNIT : AJY162/162LNTCH |
| 106.0 kW (38HP) | 113.0 kW (40HP) | 118.0 kW (42HP) | 123.0 kW (44HP) | 128.0 kW (46HP) |
| AJY342LNTCH<br>UNIT : AJY162/090/090LNTCH | AJY360LNTCH<br>UNIT : AJY144/126/090LNTCH | AJY378LNTCH<br>UNIT : AJY144/144/090LNTCH | AJY396LNTCH<br>UNIT : AJY162/144/090LNTCH | AJY414LNTCH<br>UNIT : AJY162/162/090LNTCH |
| 135.0 kW (48HP) | 140.0 kW (50HP) | 145.0 kW (52HP) | 150.0 kW (54HP) | |
| AJY432LNTCH<br>UNIT : AJY144/144/144LNTCH | AJY450LNTCH<br>UNIT : AJY162/144/144LNTCH | AJY468LNTCH<br>UNIT : AJY162/162/144LNTCH | AJY486LNTCH<br>UNIT : AJY162/162/162LNTCH | |

## Energy efficiency combinations

| 44.8 kW (16HP) | 50.4kW (18HP) | 55.9 kW (20HP) | 67.2 kW (24HP) | 72.8 kW (26HP) |
|---|---|---|---|---|
| AJY144LNTCHH<br>UNIT : AJY072/072LNTCH | AJY162LNTCHH<br>UNIT : AJY090/072LNTCH | AJY180LNTCHH<br>UNIT : AJY108/072LNTCH | AJY216LNTCHH<br>UNIT : AJY072/072/072LNTCH | AJY234LNTCHH<br>UNIT : AJY090/072/072LNTCH |
| 78.3 kW (28HP) | 84.8 kW (30HP) | 89.4 kW (32HP) | 95.9 kW (34HP) | 100.5 kW (36HP) |
| AJY252LNTCHH<br>UNIT : AJY108/072/072LNTCH | AJY270LNTCHH<br>UNIT : AJY126/072/072LNTCH | AJY288LNTCHH<br>UNIT : AJY108/108/072LNTCH | AJY306LNTCHH<br>UNIT : AJY126/108/072LNTCH | AJY324LNTCHH<br>UNIT : AJY108/108/108LNTCH |
| 107.0 kW (38HP) | 113.5 kW (40HP) | 120.0 kW (42HP) | 125.0 kW (44HP) | 130.0 kW (46HP) |
| AJY342LNTCHH<br>UNIT : AJY126/108/108LNTCH | AJY360LNTCHH<br>UNIT : AJY126/126/108LNTCH | AJY378LNTCHH<br>UNIT : AJY126/126/126LNTCH | AJY396LNTCHH<br>UNIT : AJY144/126/126LNTCH | AJY414LNTCHH<br>UNIT : AJY144/144/126LNTCH |

## Dimensions

**8,10HP :** AJY072LNTCH / AJY090LNTCH (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

**12,14,16,18HP :** AJY108LNTCH / AJY126LNTCH / AJY144LNTCH / AJY162LNTCH (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
95
75
10
Pipe port
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

## Space Saving Combinations

| Rating Capacity range | HP | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model name | | AJY072LNTCH | AJY090LNTCH | AJY108LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY180LNTCH | AJY198LNTCH | AJY216LNTCH | AJY234LNTCH | AJY252LNTCH | AJY270LNTCH | AJY288LNTCH | AJY306LNTCH | AJY324LNTCH | AJY342LNTCH | AJY360LNTCH | AJY378LNTCH | AJY396LNTCH | AJY414LNTCH | AJY432LNTCH | AJY450LNTCH | AJY468LNTCH | AJY486LNTCH |
| Unit 1 | | AJY072LNTCH | AJY090LNTCH | AJY108LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY090LNTCH | AJY126LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY144LNTCH | AJY144LNTCH | AJY162LNTCH | AJY162LNTCH | AJY162LNTCH | AJY144LNTCH | AJY144LNTCH | AJY162LNTCH | AJY162LNTCH | AJY144LNTCH | AJY162LNTCH | AJY162LNTCH | AJY162LNTCH |
| Unit 2 | | | | | | | | AJY090LNTCH | AJY072LNTCH | AJY090LNTCH | AJY090LNTCH | AJY090LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY162LNTCH | AJY162LNTCH | AJY090LNTCH | AJY090LNTCH | AJY090LNTCH | AJY090LNTCH | AJY144LNTCH | AJY144LNTCH | AJY144LNTCH | AJY162LNTCH |
| Unit 3 | | | | | | | | | | | | | | | | | AJY090LNTCH | AJY126LNTCH | AJY144LNTCH | AJY162LNTCH | AJY090LNTCH | AJY144LNTCH | AJY144LNTCH | AJY144LNTCH | AJY162LNTCH |
| 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 | 14.0-36.4 | 16.8-43.5 | 20.0-52.0 | 22.5-58.5 | 25.0-65.0 | 28.0-72.8 | 31.2-81.1 | 34.0-88.4 | 36.5-94.9 | 39.0-101.4 | 42.5-110.5 | 45.0-117.0 | 47.5-123.5 | 50.0-130.0 | 53.0-137.8 | 56.5-146.9 | 59.0-153.4 | 61.5-159.9 | 64.0-166.4 | 67.5-175.5 | 70.0-182 | 72.5-188.5 | 75.0-195.0 |

Power source: 3 phase 4 wire, 400 V, 50Hz (units 8–46) / 3 phase 4 wire, 400 V, 50Hz (units 48–54)

### 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 | 76,400 | 95,500 | 114,300 | 136,500 | 153,500 | 170,600 | 191,000 | 212,900 | 232,000 | 249,000 | 266,100 | 290,000 | 307,000 | 324,100 | 341,200 | 361,600 | 385,500 | 402,500 | 419,600 | 436,700 | 460,500 | 477,600 | 494,700 | 511,800 |
| | Heating | Btu/h | 85,300 | 107,500 | 128,000 | 153,500 | 170,600 | 170,600 | 215,000 | 238,800 | 261,000 | 278,100 | 278,100 | 324,100 | 341,200 | 341,200 | 341,200 | 385,600 | 431,600 | 448,700 | 448,700 | 448,700 | 511,800 | 511,800 | 511,800 | 511,800 |
| 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 | 14.56 | 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

| | | | 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 | 20.2 | 25.2 | 28.5 | 32.0 | 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 |
| | Cooling | Btu/h | 68,900 | 86,000 | 97,200 | 109,200 | 119,800 | 120,100 | 172,000 | 178,100 | 195,200 | 205,800 | 206,100 | 229,000 | 239,600 | 239,900 | 240,200 | 292,100 | 315,000 | 325,600 | 325,900 | 326,200 | 359,400 | 359,700 | 360,000 | 360,300 |
| Input power | Cooling | kW | 6.73 | 9.20 | 9.34 | 10.70 | 11.82 | 12.35 | 18.39 | 17.44 | 19.90 | 21.02 | 21.55 | 22.52 | 23.64 | 24.17 | 24.70 | 30.75 | 31.72 | 32.83 | 33.37 | 33.90 | 35.45 | 35.99 | 36.52 | 37.05 |
| Current | Cooling | 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 |
| | | Btu/h/W | 10.23 | 9.35 | 10.40 | 10.20 | 10.14 | 9.72 | 9.35 | 10.21 | 9.81 | 9.79 | 9.56 | 10.17 | 10.14 | 9.93 | 9.72 | 9.50 | 9.93 | 9.92 | 9.77 | 9.62 | 10.14 | 10.00 | 9.86 | 9.72 |
| Power factor | | % | 90 | 92 | 92 | 92 | 92 | 93 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Air flow rate | High | m³/h | 11,100 | 11,100 | 13,000 | 13,000 | 13,700 | 13,700 | 11,100×2 | 13,000+11,100 | 13,000+11,100 | 13,700+11,100 | 13,700+11,100 | 13,700+13,000 | 13,700×2 | 13,700×2 | 13,700×2 | 13,700+11,100×2 | 13,700+13,000+11,100 | 13,700×2+11,100 | 13,700×2+11,100 | 13,700×2+11,100 | 13,700×3 | 13,700×3 | 13,700×3 | 13,700×3 |
| Sound pressure level*2 / Power level | Cooling | dB (A) | 56 / 77 | 58 / 79 | 57 / 78 | 60 / 81 | 62 / 83 | 63 / 84 | 61 / 82 | 61 / 82 | 62 / 83 | 63 / 84 | 64 / 85 | 64 / 85 | 65 / 88 | 66 / 87 | 66 / 87 | 65 / 86 | 65 / 86 | 66 / 87 | 66 / 87 | 67 / 87 | 67 / 88 | 67 / 88 | 67 / 88 | 68 / 89 |
| | Heating | dB (A) | 58 / 80 | 59 / 81 | 60 / 83 | 62 / 84 | 64 / 86 | 64 / 86 | 62 / 84 | 63 / 85 | 64 / 86 | 65 / 87 | 65 / 87 | 66 / 88 | 67 / 89 | 67 / 89 | 67 / 89 | 66 / 88 | 67 / 89 | 68 / 90 | 68 / 90 | 68 / 90 | 69 / 91 | 69 / 91 | 69 / 91 | 69 / 91 |
| 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 | 11.0 | 11.0 | 11.0 | 11.0 | 7.5×2 | 11.0+7.5 | 11.0+7.5 | 11.0+7.5 | 11.0+7.5 | 11.0×2 | 11.0×2 | 11.0×2 | 11.0×2 | 11.0+7.5×2 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×2+7.5 | 11.0×3 | 11.0×3 | 11.0×3 | 11.0×3 |
| Heat exchanger fin | | | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin | Blue fin |
| Dimensions | Height | mm | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 |
| | Width | mm | 930 | 930 | 1,240 | 1,240 | 1,240 | 1,240 | 930×2 | 1,240+930 | 1,240+930 | 1,240+930 | 1,240+930 | 1,240×2 | 1,240×2 | 1,240×2 | 1,240×2 | 1,240+930×2 | 1,240×2+930 | 1,240×2+930 | 1,240×2+930 | 1,240×2+930 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 |
| | 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 | 279×2+255 | 279×3 | 279×3 | 279×3 | 279×3 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 11.7(24.4) | 11.7(24.4) | 11.8(24.6) | 11.8(24.6) | 11.8(24.6) | 11.8(24.6) | 11.7×2(24.4×2) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8+11.7 (24.6+24.4) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8×2 (24.6×2) | 11.8+11.7×2 (24.6+24.4×2) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) |
| 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 | °C | -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 | °C | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

## Energy Efficiency Combinations

| Rating Capacity range | HP | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Model name | | AJY144LNTCHH | AJY162LNTCHH | AJY180LNTCHH | AJY216LNTCHH | AJY234LNTCHH | AJY252LNTCHH | AJY270LNTCHH | AJY288LNTCHH | AJY306LNTCHH | AJY324LNTCHH | AJY342LNTCHH | AJY360LNTCHH | AJY378LNTCHH | AJY396LNTCHH | AJY414LNTCHH |
| Unit 1 | | AJY072LNTCH | AJY090LNTCH | AJY108LNTCH | AJY072LNTCH | AJY090LNTCH | AJY108LNTCH | AJY126LNTCH | AJY108LNTCH | AJY126LNTCH | AJY108LNTCH | AJY126LNTCH | AJY126LNTCH | AJY126LNTCH | AJY144LNTCH | AJY144LNTCH |
| Unit 2 | | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY126LNTCH | AJY108LNTCH | AJY108LNTCH | AJY108LNTCH | AJY126LNTCH | AJY126LNTCH | AJY126LNTCH | AJY144LNTCH |
| Unit 3 | | | | | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY072LNTCH | AJY108LNTCH | AJY108LNTCH | AJY108LNTCH | AJY108LNTCH | AJY126LNTCH | AJY126LNTCH | AJY126LNTCH |
| 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 | 28.0-72.6 | 33.6-87.3 | 36.4-94.6 | 39.2-101.7 | 42.4-110.2 | 44.7-116.2 | 48.0-124.6 | 50.3-130.6 | 53.5-139.1 | 56.8-147.5 | 60.0-156.0 | 62.5-162.5 | 65.0-169 |

Power source: 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 | 152,800 | 171,900 | 190,700 | 229,200 | 248,300 | 267,100 | 289,300 | 305,000 | 327,200 | 342,900 | 365,100 | 387,300 | 409,500 | 426,500 | 443,500 |
| | Heating | Btu/h | 170,600 | 192,800 | 213,300 | 255,900 | 278,100 | 298,600 | 324,100 | 341,300 | 366,800 | 384,000 | 409,500 | 435,000 | 460,500 | 477,600 | 494,700 |
| 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

| | | | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity | Cooling | kW | 40.4 | 45.4 | 48.7 | 60.6 | 65.6 | 68.9 | 72.4 | 77.2 | 80.7 | 85.5 | 89.0 | 92.5 | 96.0 | 99.1 | 102.2 |
| | Cooling | Btu/h | 137,800 | 154,900 | 166,100 | 206,700 | 223,800 | 235,000 | 247,000 | 263,300 | 275,300 | 291,600 | 303,600 | 315,600 | 327,600 | 338,200 | 348,800 |
| Input power | Cooling | 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 | Cooling | A | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| EER | | W/W | 3.00 | 2.85 | 3.03 | 3.00 | 2.89 | 3.02 | 3.00 | 3.04 | 3.01 | 3.05 | 3.03 | 3.01 | 2.99 | 2.98 | 2.98 |
| | | Btu/h/W | 10.23 | 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 |
| Power factor | | % | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Air flow rate | High | m³/h | 11,100×2 | 11,100×2 | 13,000+11,100 | 11,100×3 | 11,100×3 | 13,000+11,100×2 | 13,000+11,100×2 | 13,000×2+11,100 | 13,000×2+11,100 | 13,000×3 | 13,000×3 | 13,000×3 | 13,000×3 | 13,700+13,000×2 | 13,700×2+13,000 |
| Sound pressure level*2 / Power level | Cooling | dB (A) | 59 / 80 | 60 / 81 | 60 / 81 | 61 / 82 | 62 / 83 | 61 / 82 | 63 / 84 | 61 / 82 | 63 / 84 | 62 / 83 | 63 / 84 | 64 / 85 | 65 / 88 | 66 / 87 | 66 / 87 |
| | Heating | dB (A) | 61 / 83 | 62 / 84 | 62 / 85 | 63 / 85 | 63 / 85 | 64 / 86 | 65 / 87 | 64 / 87 | 65 / 88 | 65 / 88 | 66 / 88 | 66 / 88 | 67 / 89 | 68 / 90 | 68 / 90 |
| 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 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 | 1,690 |
| | Width | mm | 930×2 | 930×2 | 1,240+930 | 930×3 | 930×3 | 1,240+930×2 | 1,240+930×2 | 1,240×2+930 | 1,240×2+930 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 | 1,240×3 |
| | Depth | mm | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 | 765 |
| Weight | | kg | 255×2 | 255×2 | 279+255 | 255×3 | 255×3 | 279+255×2 | 279+255×2 | 279×2+255 | 279×2+255 | 279×3 | 279×3 | 279×3 | 279×3 | 279×3 | 279×3 |
| Refrigerant | Type (Global Warming Potential) | | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) | R410A (2,088) |
| | Charge | kg(CO2eq-T) | 11.7×2 (24.4×2) | 11.7×2 (24.4×2) | 11.8+11.7 (24.6+24.4) | 11.7×3 (24.4×3) | 11.7×3 (24.4×3) | 11.8+11.7×2 (24.6+24.4×2) | 11.8+11.7×2 (24.6+24.4×2) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×2+11.7 (24.6×2+24.4) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) | 11.8×3 (24.6×3) |
| 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 | °C | -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 | °C | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 | -20 to 21 |

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

VRF SERIES

# VRF
# INDOOR UNITS

**16 Types and 149 models available to meet the requirements of any building design.**

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

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

## INDOOR UNITS LINE-UP

Cassette (1-way Flow type)

3D Flow Cassette

4-way Flow Compact Cassette (Grid type / Standard type)

4-way Flow Cassette

Circular Flow Cassette

Mini Duct

Low Static Pressure Duct

Slim Duct / Slim Concealed Floor

Low / Medium Static Pressure Duct

High Static Pressure Duct

Floor (compact)

Floor / Ceiling

Ceiling

Wall Mounted

# INDOOR UNITS LINE-UP

| Category | Type | | 7 | 9 | 12 | 14 | 18 | 24 | 30 | 34 | 36 | 45 | 54 | 60 | 72 | 90 | 96 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model code** | | | 7 | 9 | 12 | 14 | 18 | 24 | 30 | 34 | 36 | 45 | 54 | 60 | 72 | 90 | 96 |
| **Capacity range (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** | 1-way Flow | | AUXV007GLEH | AUXV009GLEH | AUXV012GLEH | AUXV014GLEH | AUXV018GLEH | AUXV024GLEH | | | | | | | | | |
| | 3D Flow | | | | | | AUXS018GLEH | AUXS024GLEH | | | | | | | | | |
| | 4-way Flow Compact | (Grid type) | AUXB007GLEH | AUXB009GLEH<br>AUXB09GATH | AUXB012GLEH<br>AUXB12GATH | AUXB014GLEH<br>AUXB14GATH | AUXB018GLEH<br>AUXB18GATH | AUXB024GLEH<br>AUXB24GATH | | | | | | | | | |
| | | (Standard type) | AUXB007GLEH | AUXB009GLEH<br>AUXB09GATH | AUXB012GLEH<br>AUXB12GATH | AUXB014GLEH<br>AUXB14GATH | AUXB018GLEH<br>AUXB18GATH | AUXB024GLEH<br>AUXB24GATH | | | | | | | | | |
| | 4-way Flow | (Slim type) | | | | | AUXD18GALH | AUXD24GALH | | | | | | | | | |
| | | (Large type) | | | | | AUXA18GALH | AUXA24GALH | AUXA30GALH | AUXA34GALH | AUXA36GALH | AUXA45GALH | AUXA54GALH | | | | |
| | Circular Flow | (Slim type) | | | | | AUXM018GLEH<br>AUXM018GTAH | AUXM024GLEH<br>AUXM024GTAH | AUXM030GLEH | | | | | | | | |
| | | (Large type) | | | | | AUXK018GLEH | AUXK024GLEH | AUXK030GLEH<br>AUXK030GTAH | AUXK034GLEH | AUXK036GLEH<br>AUXK036GTAH | AUXK045GLEH<br>AUXK045GTAH | AUXK054GLEH<br>AUXK054GTAH | | | | |
| **Duct** | Mini Duct (With drain pump) | | ARXK007GLGH | ARXK009GLGH | ARXK012GLGH | ARXK014GLGH | ARXK018GLGH | ARXK024GLGH | | | | | | | | | |
| | Low Static Pressure Duct | | ARXB07GALH | ARXB09GALH | ARXB12GALH | ARXB14GALH | ARXB18GALH | ARXB24GALH | ARXB30GALH | | ARXB36GALH | ARXB45GALH | | | | | |
| | Slim Duct (With drain pump) | | ARXD007GLEH<br>ARXD07GATH | ARXD009GLEH<br>ARXD09GATH | ARXD012GLEH<br>ARXD12GATH | ARXD014GLEH<br>ARXD14GATH | ARXD018GLEH<br>ARXD18GATH | ARXD024GLEH<br>ARXD24GATH | | | | | | | | | |
| | Medium Static Pressure Duct | | | | | | | ARXA024GLEH<br>ARXA24GBTH | ARXA030GLEH<br>ARXA30GBTH | | ARXA036GLEH<br>ARXA36GBTH | ARXA045GLEH<br>ARXA45GBTH | | | | | |
| | High Static Pressure Duct | | | | | | | | | | ARXC036GTEH | ARXC045GTEH | | ARXC060GTEH*2 | ARXC072GTEH*2 | ARXC090GTEH*2 | ARXC096GTEH*2 |
| **Floor** | Concealed Floor (Same as Low Static Pressure Duct models) | | ARXB07GALH | ARXB09GALH | ARXB12GALH | ARXB14GALH | ARXB18GALH | | | | | | | | | | |
| | Floor (Same as Ceiling models) | | | | ABYA012GTEH | ABYA014GTEH | ABYA018GTEH | ABYA024GTEH | | | | | | | | | |
| | Slim Concealed Floor (Same as Slim Duct models) | | ARXD007GLEH<br>ARXD07GATH | ARXD009GLEH<br>ARXD09GATH | ARXD012GLEH<br>ARXD12GATH | ARXD014GLEH<br>ARXD14GATH | ARXD018GLEH<br>ARXD18GATH | ARXD024GLEH<br>ARXD24GATH | | | | | | | | | |
| | Floor (compact) | | AGYA007GCGH | AGYA009GCGH | AGYA012GCGH | AGYA014GCGH | | | | | | | | | | | |
| **Ceiling** | Ceiling | | | | ABYA012GTEH | ABYA014GTEH | ABYA018GTEH | ABYA024GTEH | ABYA030GTEH | | ABYA036GTEH | ABYA045GTEH | ABYA054GTEH | | | | |
| **Wall Mounted** | Wall Mounted | | ASYA07GATH | ASYA09GATH | ASYA12GATH | ASYA14GATH | ASYA18GACH<br>ASYA18GATH | ASYA24GACH<br>ASYA24GATH | ASYA30GACH<br>ASYA30GATH | | | | | | | | |
| | | | ASYA007GCGH | ASYA009GCGH | ASYA012GCGH | ASYA014GCGH | ASYA18GBCH | ASYA24GBCH | ASYA030GTEH | ASYA034GTEH | | | | | | | |
| | | | ASYA007GTEH | ASYA009GTEH | | | | | | | | | | | | | |

*1:AUXA18/24GALH can not be connected to J-IIIL Series.
*2:ARXC60/72/90/96 cannot be connected to J-IIS Series and J-III Series.
*: Circular Flow Cassette (except AUXM030GLAH) , Mini Duct, Low Static Pressure Duct, Slim Duct, Medium Static Pressure Duct, High Static Pressure Duct (ARXC45GATH only) can be connected to J-III Series for Singapore.

INDOOR UNITS

# Cassette (1-way Flow type)

**Models** (Slim type)
AUXV007GLEH / AUXV009GLEH / AUXV012GLEH
AUXV014GLEH / AUXV018GLEH / AUXV024GLEH

AUXV007 AUXV009 AUXV012          AUXV014 AUXV018 AUXV024

**DC FAN**

## Features

### Compact chassis size

Their compact sizes make it easy to install them in a variety of commercial locations and environments.
• The chassis is less than 200 mm high in every model.
• All 4 to 12kBtu models are less than 1,000 mm wide.
• The chassis depth is 570 mm, which fits nicely into a grid-type ceiling.

Compact depth fits the grid ceiling

Dimensions (Panel size)                                (Unit : mm)

|   | 7 | 9 | 12 | 14 | 18 | 24 |
|---|---|---|----|----|----|----|
| H | | 198 (43) | | | 198 (43) | |
| W | | 785 (950) | | | 1,190 (1,360) | |
| D | | 570 (620) | | | 570 (620) | |
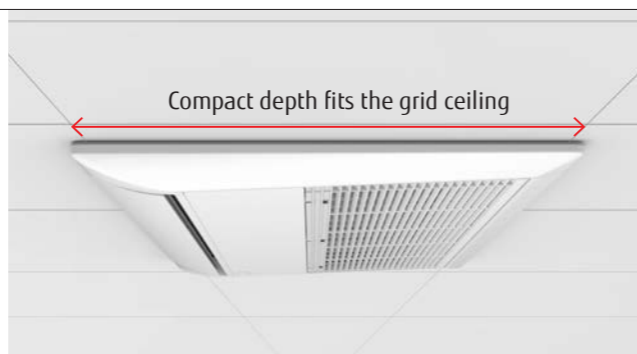
### Wide airflow range

The large flap with triangularly arrayed louvers has a wider movable range and directs an airflow to the furthest corners of the room.

Triangle design
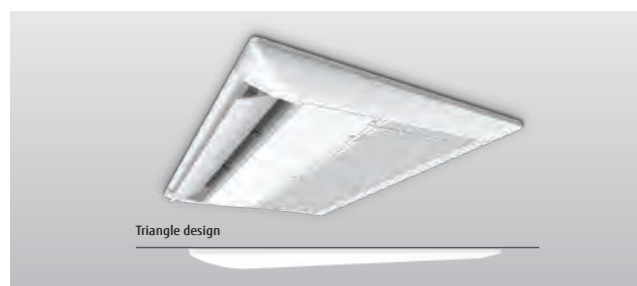
In cooling mode, the horizontal airflow reaches the furthest corners of the room and avoids hitting human bodies directly in order to provide comfortable air conditioning.

In heating mode, the warm air is directed downward toward the floor to warm the occupants' feet and lower bodies while keeping their heads relatively cool.

Note: This is a conceptual drawing. Air conditioning performance may vary depending on installation, room size, and the distance from the wall.

### Low noise operation

They produce little noise during operation, which makes them an ideal choice for use in hotel rooms.

### Flexible Installation

By using new L-type piping kit, more flexible installation is possible. Built-in drain pump as standard accessory, which enable to have maximum 700m piping height difference from the ceiling.
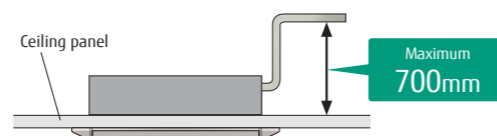
Ceiling panel

Maximum **700mm**

### Optional parts

IR Receiver Unit:              UTY-TRHX
Cassette Grille:              UTG-UNYA-W (007/009/012)
                             UTG-UNYB-W (014/018/024)
External Power Supply Unit:  UTZ-GXXC

## Specifications

| Model name | | | AUXV007GLEH | AUXV009GLEH | AUXV012GLEH | AUXV014GLEH | AUXV018GLEH | AUXV024GLEH |
|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase - phase, ~230V, 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 | 42/42 | 42/42 | 60/60 | 38/38 | 56/56 | 99/99 |
| Airflow rate | High | m³/h (l/s) | 550 | 550 | 670 | 720 | 890 | 1,150 |
| | Med-High | | 440 | 440 | 520 | 660 | 840 | 1,020 |
| | Med | | 420 | 420 | 480 | 630 | 770 | 940 |
| | Med-Low | | 400 | 400 | 450 | 600 | 710 | 790 |
| | Low | | 380 | 380 | 410 | 580 | 660 | 700 |
| | Quiet | | 360 | 360 | 360 | 550 | 580 | 610 |
| Sound pressure level | High | dB (A) | 42 | 42 | 45 | 37 | 44 | 49 |
| | Med-High | | 37 | 37 | 41 | 36 | 43 | 47 |
| | Med | | 36 | 36 | 39 | 35 | 40 | 45 |
| | Med-Low | | 35 | 35 | 38 | 34 | 38 | 42 |
| | Low | | 33 | 33 | 36 | 33 | 36 | 39 |
| | Quiet | | 32 | 32 | 32 | 32 | 34 | 36 |
| Dimensions (H × W × D) | | mm | 198 × 785 × 570 | 198 × 785 × 570 | 198 × 785 × 570 | 198 × 1,190 × 570 | 198 × 1,190 × 570 | 198 × 1,190 × 570 |
| Weight | | kg | 19 (42) | 19 (42) | 19 (42) | 26 (57) | 26 (57) | 27 ( ) |
| Connection pipe diameter | Liquid (flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 9.52 |
| | Gas (flare) | | 9.52 | 9.52 | 12.70 | 12.70 | 12.70 | 15.88 |
| Drain hose diameter (I.D./O.D.) | | | 25 / 32 | | | | | |
| Cassette grille | Model name | | UTG-UNYA-W | | | UTG-UNYB-W | | |
| | Dimensions (H×W×D) | mm | 43 × 950× 620 | | | 43 × 1,360 × 620 | | |
| | Weight | kg | 6.5 (14.5) | | | 8.5 (18.0) | | |

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].

## Dimensions (Unit: mm)
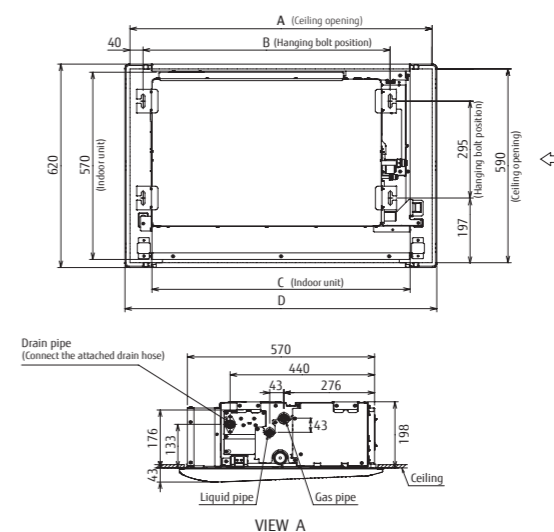
|   | AUXV007-012 | AUXV014-024 |
|---|---|---|
| A | 920 | 1,330 |
| B | 752 | 1,152 |
| C | 785 | 1,190 |
| D | 950 | 1,360 |

VIEW A

# 3D Flow Cassette

**Models**
AUXS018GLEH / AUXS024GLEH

DC
FAN

## Feature

### 3 Air Outlet Ports can be controlled individually

Using the "Comfortable airflow setting" function allows the left and right air outlet ports and the wide center air outlet ports to automatically create a comfortable space for improved comfort.

**Temperature distribution during cooling and heating**
(when set to comfortable airflow)

**Cooling**
When cooling operation is stable with an outside air temperature of 35°C, a set temperature of 18°C and an air volume set to "Hi" in a 40m² environmental our test room for the AUXS024GLEH

**Heating**
When heating operation is stable with an outside air temperature of 7°C, a set temperature of 30°C and an air volume set to "Hi" in a 40m² environmental our test room for the AUXS024GLEH

*1

WORLD'S FIRST

Maximum rotation angle **100°**

Side air outlet port

Center air outlet port

Side air outlet port
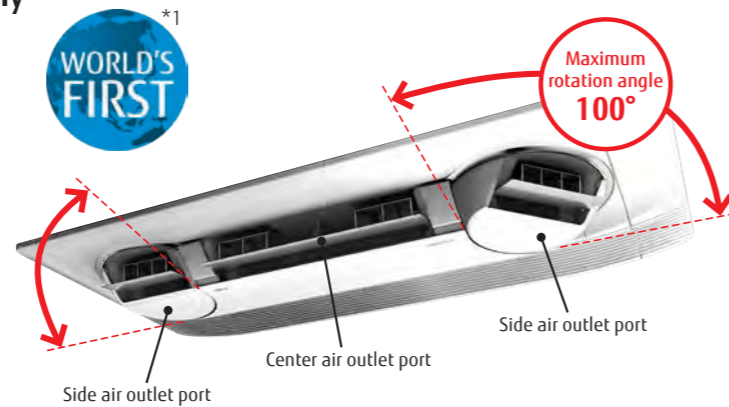
*1: Announced 2018. In room air conditioner for the home (our company's investigation)

### Individual airflow setting

Equipped with an "Individual airflow setting" function that optimizes the airflow setting in accordance with the installation location.
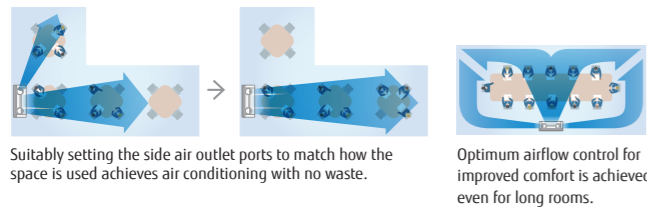
Suitably setting the side air outlet ports to match how the space is used achieves air conditioning with no waste.

Optimum airflow control for improved comfort is achieved even for long rooms.

**Individual air outlet port control**
"Individual airflow setting" is possible using the Wired Remote Controller (Touch Panel) and Central Remote Controller*. The airflow of the respective air outlet ports can be individually set.

Wired Remote Controller (Touch Panel)
**UTY-RNRYZ5**

Central Remote Controller
**UTY-DCGYZ2**

*Wired Remote Controller (Touch Panel) (UTY-RNRYZ5) and Central remote controller (UTY-DCGYZ2) only

### High Energy Saving

The "New structural design" featuring large intake and smooth output reduces air blowing loss to achieve top class energy saving.

Efficient air outlet port

Expansion of air return port area
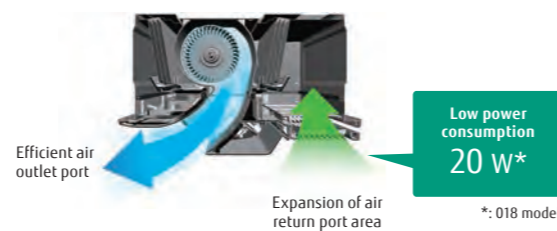
**Low power consumption 20 w***

*: 018 model

### Optional parts

IR Receiver Unit: UTY-TRHX
Cassette Grille: UTG-USYA-W
External Power Supply Unit: UTZ-GXXC

## Specifications

| Model name | | | AUXS018GLEH | AUXS024GLEH |
|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | |
| Capacity | Cooling | kW | 5.60 | 7.10 |
| | Heating | | 6.30 | 8.00 |
| Input power | | W | 20/28 | 34 / 43 |
| Airflow rate* | High | m³/h | 750 / 870 | 950 / 1,040 |
| | Med-High | | 710 / 830 | 890 / 990 |
| | Med | | 690 / 780 | 860 / 930 |
| | Med-Low | | 660 / 740 | 810 / 880 |
| | Low | | 630 / 700 | 770 / 840 |
| | Quiet | | 540 / 540 | 540 / 540 |
| Sound pressure level* | High | dB (A) | 38 / 41 | 43 / 46 |
| | Med-High | | 36 / 40 | 42 / 45 |
| | Med | | 35 / 39 | 41 / 43 |
| | Med-Low | | 35 / 37 | 40 / 42 |
| | Low | | 33 / 36 | 38 / 40 |
| | Quiet | | 29 / 29 | 29 / 29 |
| Dimensions (H × W × D) | | mm | 200 × 1,240 × 500 | 200 × 1,240 × 500 |
| Weight | | kg | 25 | 25 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 9.52 |
| | Gas (Flare) | | 12.70 | 15.88 |
| Drain hose diameter (I.D./O.D.) | | | 25 / 32 | |
| Cassette Grille | Model name | | UTG-USYA-W | |
| | Dimensions (H×W×D) | mm | 85 × 1,350 × 580 | |
| | Weight | kg | 11.5 | |

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

*: This value is "cooling operation / heating operation".

## Dimensions (Unit: mm)

1,350
1,222
1,182
(ceiling opening) 530 to 550
460
500
580
A
1,300 to 1320
(Ceiling opening)

3 Drain hose
Liquid pipe 1
2 Gas pipe

Drain pipe
(Connect the attached drain hose)

65 40
435
227
30
204
250
85

View A

INDOOR UNITS
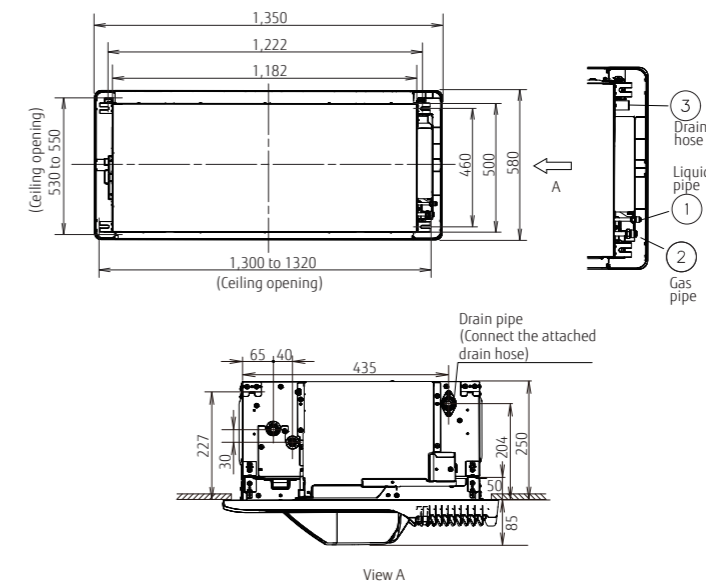
# 4-way Flow Compact Cassette (Grid type)

**Models**
AUXB007GLEH / AUXB009GLEH / AUXB012GLEH
AUXB014GLEH / AUXB018GLEH / AUXB024GLEH
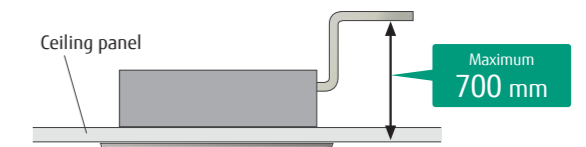AUXB09GATH / AUXB12GATH / AUXB14GATH
AUXB18GATH / AUXB24GATH

**DC FAN**

## Feature

### Compact and stylish panel design

Compact and stylish panel design fits the grid type ceiling. It is a linear design suitable for grid shape of 620 mm × 620 mm grid ceiling.

620 mm

### Easy maintenance

Maintenance is easier by removing the ceiling panel next to the grill, maintenance can be done, and new installation of inspection hole is unnecessary, so construction costs can be suppressed.
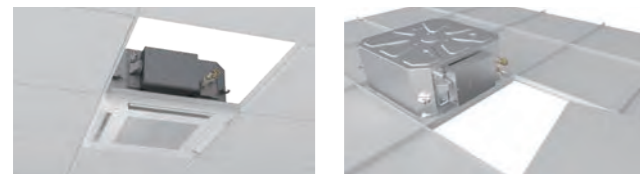
The air inlet grill can be installed in various directions, so maintenance is easy.

### Flexible installation

It is suitable for ceiling of grid type and it has high degree of freedom of installation and it can be installed beside lighting and ventilation opening.

### Flexible installation

Ceiling panel

Maximum
**700 mm**

### 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 |
| 7 | 2.7 | - |
| 9 | 2.7 | - |
| 12 | 2.7 | 3.0 |
| 14 | 2.7 | 3.0 |
| 18 | 2.7 | 3.0 |
| 24 | 2.7 | 3.0 |

### Optional parts

Air Outlet Shutter Plate: UTR-YDZB
Flesh Air Intake Kit: UTZ-VXAA
Insulation Kit for High Humidity: UTZ-KXGC
Casette Grille: UTG-UFYE-W
External Power Supply Unit: UTZ-GXXC (AUXB***GLEH)

## Specifications

| Model name | | | AUXB007GLEH | AUXB009GLEH AUXB09GATH | AUXB012GLEH AUXB12GATH | AUXB014GLEH AUXB14GATH | AUXB018GLEH AUXB18GATH | AUXB024GLEH AUXB24GATH |
|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 540 | 550 | 600 | 680 | 710 | 1,030 |
| | Med-High*1 | | 500 | 520 | 560 | 620 | 660 | 910 |
| | Med | | 460 | 480 | 520 | 560 | 590 | 790 |
| | Med-Low*1 | | 420 | 440 | 480 | 500 | 520 | 680 |
| | Low | | 390 | 400 | 430 | 440 | 460 | 560 |
| | Quiet*1 | | 350 | 350 | 390 | 390 | 400 | 450 |
| Sound pressure level | High | dB (A) | 34 | 35 | 37 | 38 | 41 | 50 |
| | Med-High*1 | | 32 | 33 | 34 | 37 | 39 | 46 |
| | Med | | 30 | 31 | 33 | 34 | 36 | 43 |
| | Med-Low*1 | | 28 | 29 | 31 | 32 | 33 | 39 |
| | Low | | 27 | 27 | 29 | 30 | 30 | 35 |
| | Quiet*1 | | 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 | 15 | 15 | 15 | 15 | 17 | 17 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 / 9.52*2 | 9.52 |
| | Gas (Flare) | | 9.52 / 12.70*2 | 9.52 / 12.70*2 | 12.70 | 12.70 | 12.70 / 15.88*2 | 15.88 |
| Drain hose diameter (I.D./O.D.) | | | 25 / 32 | | | | | |
| Cassette Grille | Model name | | UTG-UFYE-W / UTG-UFYC-W | | | | | |
| | Dimensions (H×W×D) | mm | 49 × 620 × 620 / 49 × 700 × 700 | | | | | |
| | Weight | kg | 2.3 / 2.6 | | | | | |

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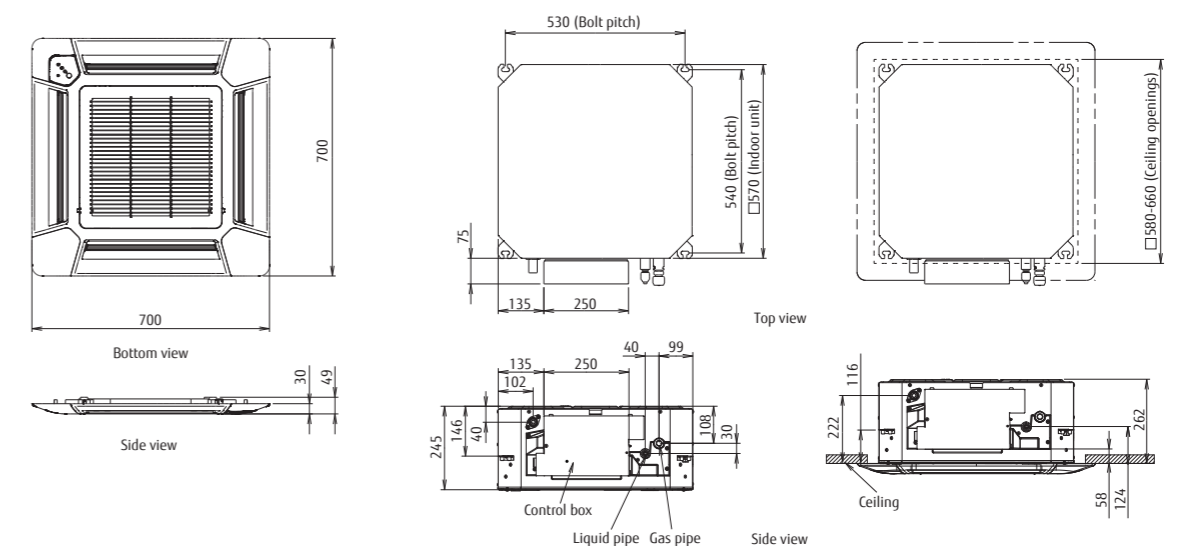Heating : Indoor temperature of 20°CDB (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

## Dimensions (Unit: mm)

IR receiver

620

620

Bottom view

530 (Bolt pitch)

540 (Bolt pitch)
□570 (Indoor unit)

75

135   250

□580–610 (Indoor unit)

Top view

Side view

30   49

135   250   40   99
102

245   146   40

□108   30

Control box
Liquid pipe   Gas pipe
Side view

222

116

262

30   58   124

Ceiling

INDOOR UNITS

# 4-way Flow Compact Cassette (Standard type)

**Models**
AUXB007GLEH / AUXB009GLEH / AUXB012GLEH
AUXB014GLEH / AUXB018GLEH / AUXB024GLEH
AUXB09GATH / AUXB12GATH / AUXB14GATH
AUXB18GATH / AUXB24GATH

**DC FAN**

## Features

### 2-stage turbo fan

**High efficiency design through 2-stage structure**

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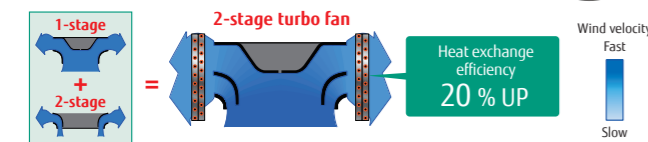
**Previous turbo fan**
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.

### Quiet operation

Optimisation 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

A
B
C
D
❶
❷ Grille cover
❸
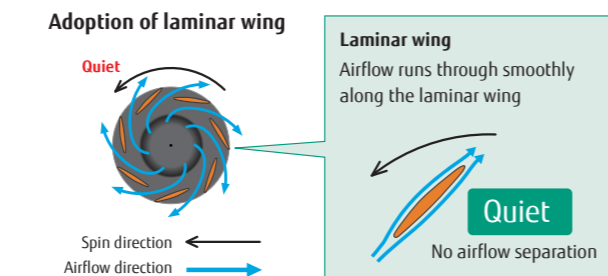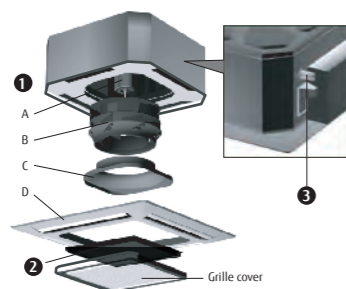
**❶ Maintenance of fan motor and fan**
Maintenance of the fan motor and fan can be done easily after taking off the panel as the bell mouth of the fan can be removed easily.

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 |
| 7 | 2.7 | – |
| 9 | 2.7 | – |
| 12 | 2.7 | 3.0 |
| 14 | 2.7 | 3.0 |
| 18 | 2.7 | 3.0 |
| 24 | 2.7 | 3.0 |

## Compact design

The worlds first 24,000Btu model in the compact cassette category.
(Easy installed 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
Fresh air intake kit:             UTZ-VXAA
Casette Grille:                   UTG-UFYC-W
External Power Supply Unit:       UTZ-GXXC (AUXB***GLEH)

## Specifications

| Model name | | | AUXB007GLEH | AUXB009GLEH AUXB09GATH | AUXB012GLEH AUXB12GATH | AUXB014GLEH AUXB14GATH | AUXB018GLEH AUXB18GATH | AUXB024GLEH AUXB24GATH |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Power source | | | Single phase, ~230V, 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 | 540 | 550 | 600 | 680 | 710 | 1,030 |
| | Med-High*1 | | 500 | 520 | 560 | 620 | 660 | 910 |
| | Med | | 460 | 480 | 520 | 560 | 590 | 790 |
| | Med-Low*1 | | 420 | 440 | 480 | 500 | 520 | 680 |
| | Low | | 390 | 400 | 430 | 440 | 460 | 560 |
| | Quiet*1 | | 350 | 350 | 390 | 390 | 400 | 450 |
| Sound pressure level | High | dB (A) | 34 | 35 | 37 | 38 | 41 | 50 |
| | Med-High*1 | | 32 | 33 | 34 | 37 | 39 | 46 |
| | Med | | 30 | 31 | 33 | 34 | 36 | 43 |
| | Med-Low*1 | | 28 | 29 | 31 | 32 | 33 | 39 |
| | Low | | 27 | 27 | 29 | 30 | 30 | 35 |
| | Quiet*1 | | 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 | 15 | 15 | 15 | 15 | 17 | 17 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 / 9.52*2 | 9.52 |
| | Gas (Flare) | | 9.52 / 12.70*2 | 9.52 / 12.70*2 | 12.70 | 12.70 | 12.70 / 15.88*2 | 15.88 |
| Drain hose diameter (I.D./O.D.) | | | 25 / 32 | | | | | |
| Cassette Grille | Model name | | UTG-UFYE-W / UTG-UFYC-W | | | | | |
| | Dimensions (H×W×D) | mm | 49 × 620 × 620 / 49 × 700 × 700 | | | | | |
| | Weight | kg | 2.3 / 2.6 | | | | | |

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].

*1: AUXB***GLEH only
*2: GLEH / GATH

## Dimensions (Unit: mm)

700
700
Bottom view
30
49
Side view

530 (Bolt pitch)
540 (Bolt pitch)
□570 (Indoor unit)
75
135
250
Top view

□580-660 (Ceiling openings)

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

116
222
Ceiling
58
124
262

# 4-way Flow Cassette (Slim type)

## Models
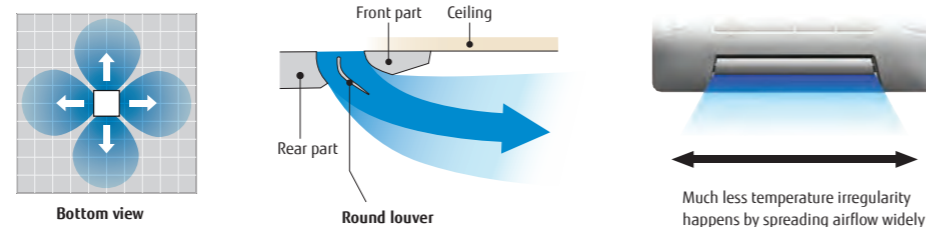**AUXD18GALH / AUXD24GALH**

**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.
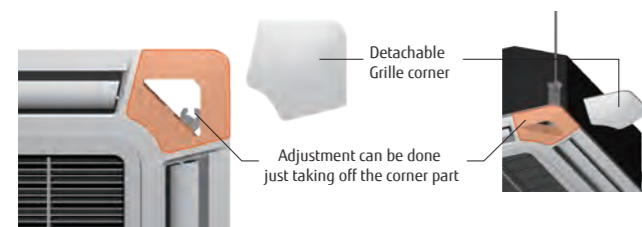
**500 mm**

3-dimensional blade

**Quiet**

No airflow separation

Wind velocity
Fast

Slow

Heat exchanger
< Motor side >

**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 airflow 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
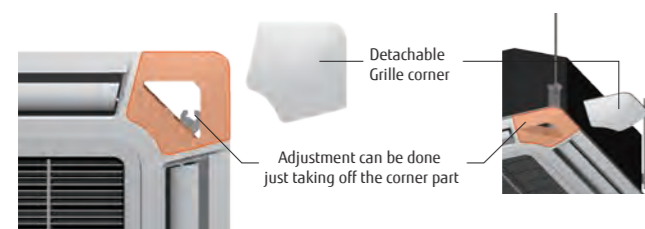
### High ceiling mode

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
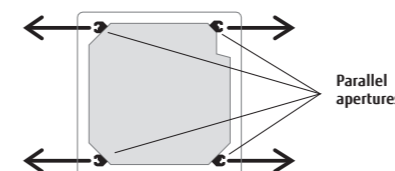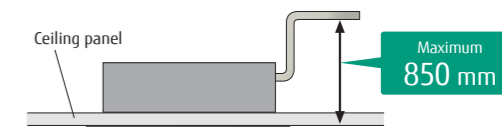
Parallel apertures

## High lift drain pump

Ceiling panel

Maximum
**850 mm**

## Optional parts

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

## Specifications

| Model name | | | AUXD18GALH | AUXD24GALH |
|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | |
| Capacity | Cooling | kW | 5.6 | 7.1 |
| | Heating | | 6.3 | 8.0 |
| Input power | | W | 39 | 46 |
| Airflow rate | High | m³/h | 1,150 | 1,280 |
| | Med | | 940 | 1,040 |
| | Low | | 870 | 870 |
| 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 | 22 | 22 |
| 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-UGYA-W | |
| | Dimensions (H+W+D) | mm | 50 × 950 × 950 | |
| | Weight | kg | 5.5 | |

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

## Dimensions (Unit : mm)

IR receiver (Option)
950
950
(Control) Box

796
Hanging bolt position
□ 840 : Indoor unit
607
420
□ bolt position
□ 860 to 910 Ceiling opening
Hanging bolt position
358
Drain hose

358   278   60
40
200
256
10
142   Ceiling   142
Liquid pipe   Gas pipe
140
44
Wire hole

INDOOR UNITS

# 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

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    ·◦●◎ : 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 airflow 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 |
| 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
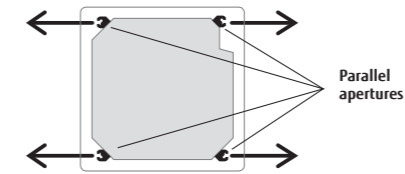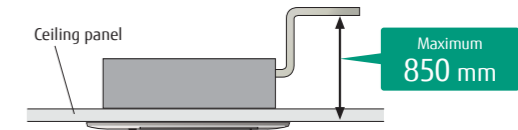
Parallel apertures

## High lift drain pump

Ceiling panel

Maximum 850 mm

### Optional parts

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

## Specifications

| Model name | | | AUXA18GALH | AUXA24GALH | AUXA30GALH | AUXA34GALH | AUXA36GALH | AUXA45GALH | AUXA54GALH |
|---|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 1,420 | 1,420 | 1,600 | 1,750 | 1,800 | 1,900 | 2,000 |
| | Med | | 1,230 | 1,230 | 1,300 | 1,300 | 1,300 | 1,370 | 1,370 |
| | Low | | 1,100 / 1,000* | 1,100 / 1,000* | 1,100 | 1,100 | 1,100 | 1,100 | 1,100 |
| Sound pressure level | High | dB (A) | 40 | 40 | 40 | 43 | 44 | 46 | 47 |
| | Med | | 36 | 36 | 38 | 38 | 38 | 39 | 39 |
| | Low | | 33 / 31* | 33 / 31* | 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 | 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| 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-UGYA-W | | | | | | |
| | Dimensions (H×W×D) | mm | 50 × 950 × 950 | | | | | | |
| | Weight | kg | 5.5 | | | | | | |

Note : Specifications are based on the following conditions.    *: 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
□ 860 to 910 Ceiling opening
Hanging bolt position
358
Drain hose

142    Ceiling    142

358    278    60
40
200    289
10
44    140
Liquid pipe    Gas pipe
Wire hole

**INDOOR UNITS**

# Circular Flow Cassette

**Models** (Slim type)
AUXM018GLEH / AUXM024GLEH / AUXM030GLEH
AUXM018GTAH / AUXM024GTAH

**Models** (Large type)
AUXK018GLEH / AUXK024GLEH / AUXK030GLEH
AUXK034GLEH / AUXK036GLEH / AUXK045GLEH
AUXK054GLEH
AUXK030GTAH / AUXK036GTAH / AUXK045GTAH
AUXK054GTAH

Black panel

(Slim type)                    (Slim type)

(Large type)                   (Large type)
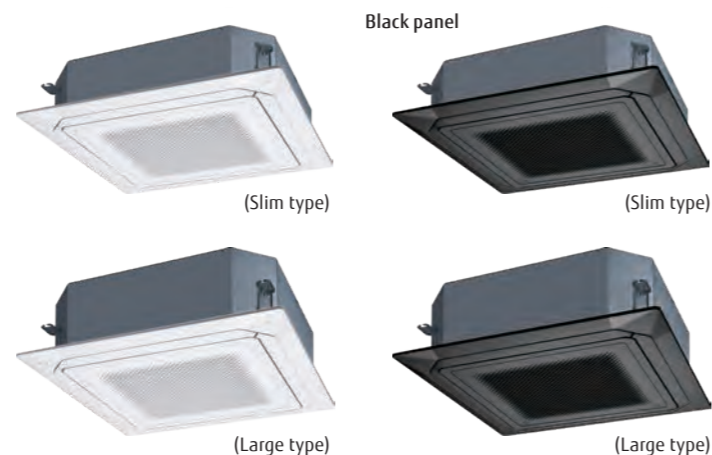
DC FAN

## Feature

### Unique Circular Flow design

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

Ø7 mm high density heat exchanger
New DC fan motor
High efficient turbo fan
Seamless airflow louver
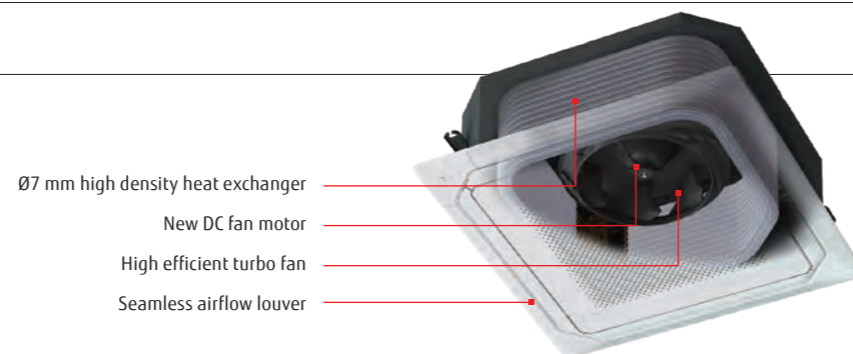
### Uniform temperature air conditioning

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

Comfortable!
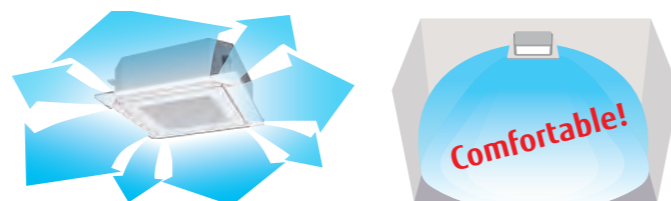
### Individual louver control

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-RNRYZ5) and Central Remote Controller(UTY-DCGYZ2) only
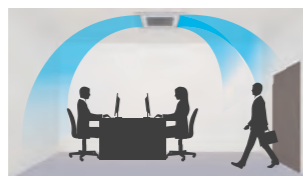
Comfortable air conditioning by preventing direct blowing of cold air and by providing swinging air flow simultaneously.
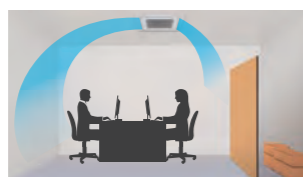
Efficient air conditioning based on the room layout

### Occupancy sensor increases more energy saving

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

* Touch Panel Wired RC (UTY-RNRYZ5) and Central Remote Controller(UTY-DCGYZ2) only

Occupancy 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

Occupancy Sensor Kit:              UTY-SHZXC
Wide Panel:                        UTG-AKXA-W
Panel Spacer:                      UTG-BKXA-W
Fresh Air Intake Kit:              UTZ-VXRA
Air Outlet Shutter Plate:          UTR-YDZK
Insulation Kit for High Humidity:  UTZ-KXRA
Casette Grille:                    UTG-UKYC-W, UTG-UKYA-B (Black)
External Power Supply Unit:        UTZ-GXXC (AUXM***GLEH, AUXK***GLEH)
IR Receiver unit:                  UTY-LBHXD

INDOOR UNITS

## Specifications

| Model name | | | AUXM018GLEH AUXM018GTAH | AUXM024GLEH AUXM024GTAH | AUXM030GLEH | AUXK018GLEH | AUXK024GLEH | AUXK030GLEH AUXK030GTAH | AUXK034GLEH | AUXK036GLEH AUXK036GTAH | AUXK045GLEH AUXK045GTAH | AUXK054GLEH AUXK054GTAH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | | | | | | | |
| Capacity | Cooling | kW | 5.6 | 7.1 | 9.0 | 5.6 | 7.1 | 9.0 | 10.0 | 11.2 | 12.5 | 14.0 |
| | Heating | | 6.3 | 8.0 | 10.0 | 6.3 | 8.0 | 10.0 | 11.2 | 12.5 | 14.0 | 16.0 |
| Input power | | W | 20 | 25 | 49 | 40 | 40 | 47 | 47 | 61 | 89 | 116 |
| Airflow rate | High | m³/h | 1,050 | 1,120 | 1,470 | 1,420 | 1,420 | 1,440 | 1,440 | 1,620 | 1,820 | 2,040 |
| | Med-High | | 930 | 1,050 | 1,160 | 1,360 | 1,360 | 1,400 | 1,400 | 1,500 | 1,590 | 1,800 |
| | Med | | 900 | 930 | 1,070 | 1,300 | 1,300 | 1,340 | 1,340 | 1,400 | 1,500 | 1,590 |
| | Med-Low | | 870 | 900 | 930 | 1,270 | 1,270 | 1,300 | 1,300 | 1,340 | 1,400 | 1,440 |
| | Low | | 810 | 870 | 900 | 1,200 | 1,200 | 1,280 | 1,280 | 1,280 | 1,300 | 1,300 |
| | Quiet | | 780 | 780 | 780 | 1,150 | 1,150 | 1,150 | 1,150 | 1,150 | 1,150 | 1,150 |
| Sound pressure level | High | dB (A) | 33 | 35 | 40 | 38 | 38 | 39 | 39 | 41 | 44 | 47 |
| | Med-High | | 32 | 33 | 36 | 37 | 37 | 38 | 38 | 40 | 42 | 45 |
| | Med | | 31 | 32 | 34 | 36 | 36 | 37 | 37 | 38 | 40 | 42 |
| | Med-Low | | 30 | 31 | 32 | 35 | 35 | 36 | 36 | 37 | 38 | 39 |
| | Low | | 29 | 30 | 31 | 34 | 34 | 35 | 35 | 35 | 36 | 36 |
| | Quiet | | 28 | 28 | 28 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
| Dimensions (H × W × D) | | mm | 246×840×840 | 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 | 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 | 9.52 | 6.35 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 |
| | Gas (Flare) | | 12.70 | 15.88 | 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-UKYC-W /UTG-UKYA-B (Black) | | | | | | | | | |
| | 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].

## Dimensions (Unit: mm)

Models: AUXM018 / AUXM024 / AUXM030

IR receiver (option)
Human sensor (option)
Hanging bolt position
(Control) box
950
950
768
Hanging bolt position
Drain hose
□840: Indoor unit
796
200-205
256
39
Ceiling   Liquid pipe   Gas pipe
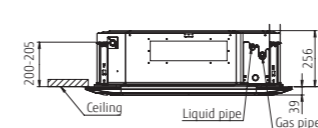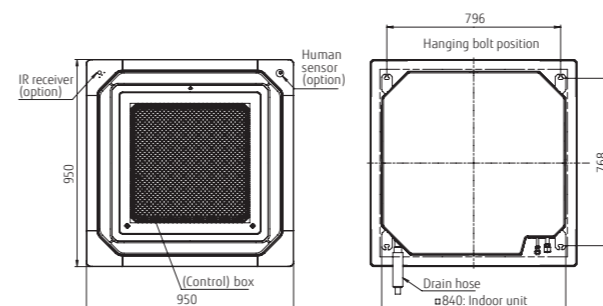
Models: AUXK018 / AUXK024 / AUXK030 / AUXK034 / AUXK036 / AUXK045 / AUXK054

IR receiver (option)
Human sensor (option)
Hanging bolt position
(Control) box
950
950
768
Hanging bolt position
Drain hose
□840: Indoor unit
796
200
298
39
Ceiling   Liquid pipe   Wire hole   Gas pipe
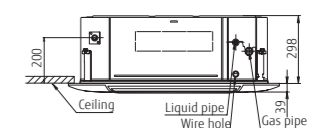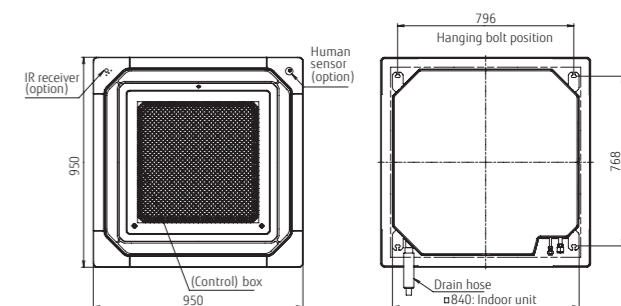
# Mini Duct

**Models** (With drain pump)
**ARXK007GLGH / ARXK009GLGH / ARXK012GLGH**
**ARXK014GLGH / ARXK018GLGH / ARXK024GLGH**

ARXK007 ARXK009 ARXK012 ARXK014    ARXK018

ARXK024

**DC FAN**

## Feature

## Large living space available

- Installation space can be reduced down to minimum depth 450 mm height 198 mm and compact design
- Minimum size: Depth 450 mm, Height 198 mm Volume 30 % down compared with current model
- Lightweight: 16 kg  10 % down

(Unit: mm)

**450**

**198**  225*

600*

*: Minimum installation dimension
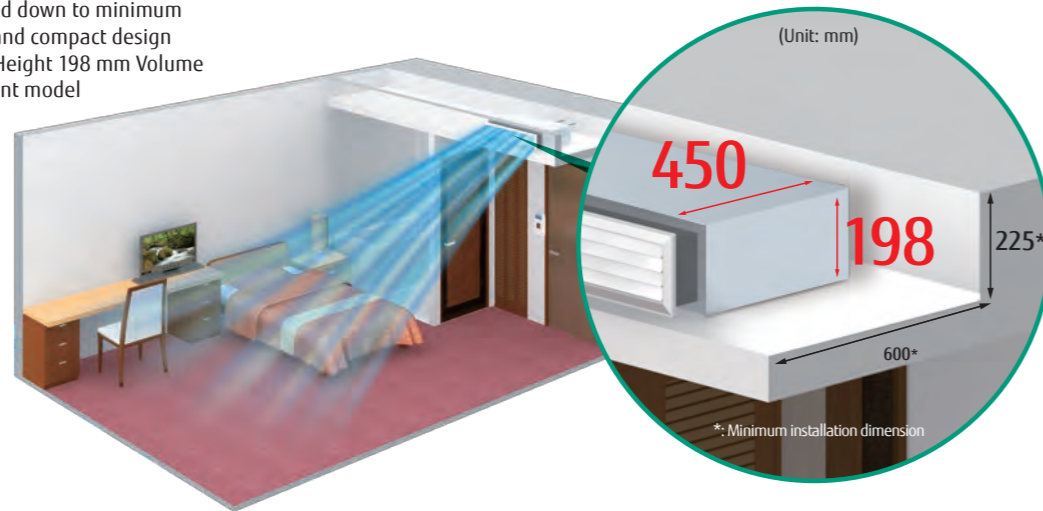
## Optimum airflow path and low noise operation

Low noise is realized drastically by stabilized airflow design

Air Stabilizer

**High efficient DC fan motor**
Lower power consumption

**V-shape heat exchanger**
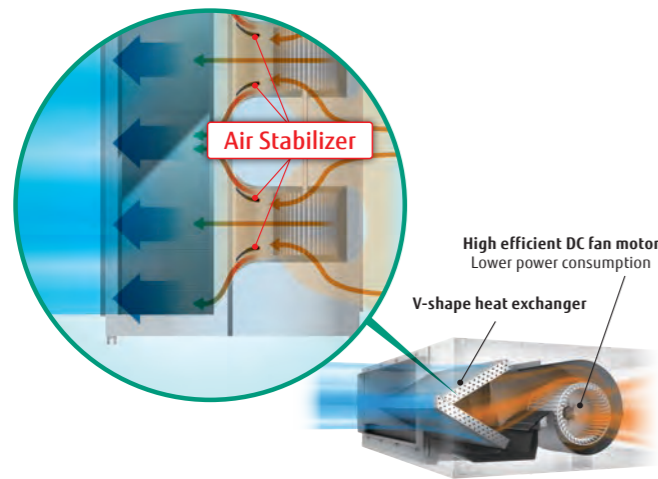
## Easy design and maintenance for drain

By using the DC fan motor, it is possible to change the static pressure range from 0 to 50 Pa*.
The change of static pressure range is possible by remote controller.
*: 0 to 30 Pa. (12)

**Built-in drain pump as standard :**
Maintenance is easy
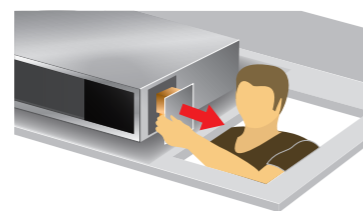
Parts can be replaced from the side of the body where maintenance is easier

## 6-speed control*

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

**Low noise**
**21 dB(A)**
at 7/9 models

**6-Step Speed**

| High |
| Med-High |
| Med |
| Med-Low |
| Low |
| Quiet |

* Compatible Remote Controller is as follows:
UTY-RNRYZ5 / UTY-RLRY / UTY-RSRY / UTY-RHRY / UTY-DCGYZ2 / UTY-ALGXZ1 / UTY-APGXZ1

## Auto Louver Grille Kit (Option)

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

### Optional parts

| | |
|---|---|
| Remote Sensor Unit : | UTY-XSZXZ1 |
| IR Receiver Unit : | UTY-TRHX |
| Auto Louver Grille Kit : | UTD-GXTA-W (for 7/9/12/14 models) |
| | UTD-GXTB-W (for 18 model) |
| | UTD-GXTC-W (for 24 model) |
| External power supply unit : | UTZ-GXXC |

## Specifications

| Model name | | | ARXK007GLGH | ARXK009GLGH | ARXK012GLGH | ARXK014GLGH | ARXK018GLGH | ARXK024GLGH |
|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 28 | 28 | 35 | 66 | 73 | 80 |
| Airflow rate | High | m³/h | 460 | 460 | 550 | 760 | 930 | 1,160 |
| | Med-High | | 440 | 440 | 520 | 660 | 840 | 1,060 |
| | Med | | 420 | 420 | 480 | 560 | 740 | 960 |
| | Med-Low | | 400 | 400 | 450 | 490 | 640 | 860 |
| | Low | | 370 | 370 | 410 | 410 | 540 | 750 |
| | Quiet | | 340 | 340 | 340 | 340 | 470 | 610 |
| 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* | | kg | 15.5 / 15.0 | 15.5 / 15.0 | 16.0/ 15.5 | 16.0 / 15.5 | 19.0 / 18.5 | 22.5 / 22.0 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 | 9.52 |
| | Gas (Flare) | | 9.52 | 9.52 | 12.70 | 12.70 | 12.70 | 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)

| | ARXK07-14 | ARXK18 | ARXK24 |
|---|---|---|---|
| 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 |

View A

Rear view

Top view

Front view

Side view

Drain port

(Drain hose)

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

INDOOR UNITS

# Low Static Pressure Duct / Concealed Floor

**Models**
ARXB07GALH / ARXB09GALH / ARXB12GALH
ARXB14GALH / ARXB18GALH

ARXB07  ARXB09

ARXB12   ARXB14  ARXB18

Concealed Floor

DC
FAN
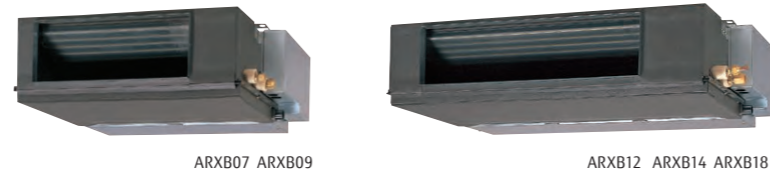
## Feature

### Low noise level

A low noise level has been achieved for each capacity
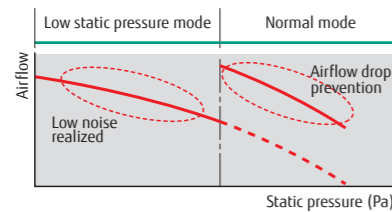
| Model | | 7 | 9 | 12 | 14 | 18 |
|---|---|---|---|---|---|---|
| Static pressure range | Pa | 0 to 50 | | | | |
| Noise level (Low speed) | dB(A) | 24 | 27 | 25 | 30 | 30 |

### Compact design

Ultra-slim duct air conditioner for easy installation

**Height 217 mm**
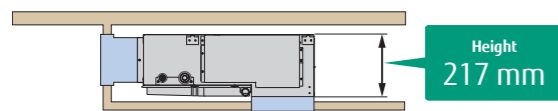
Slim size (217 mm) allows installation even where the space above the ceiling is narrow.

### Two-direction drain piping
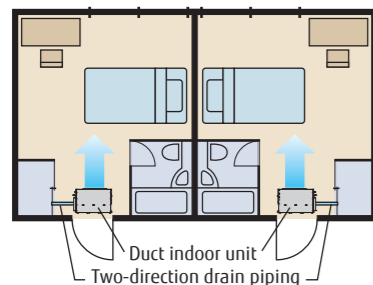
Duct indoor unit
Two-direction drain piping

### Air-intake

Air intake direction can be selected to match the installation site.
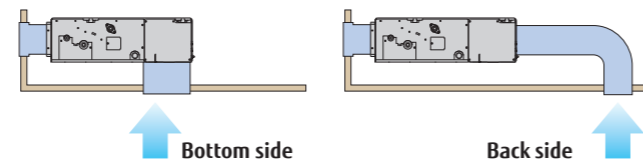
**Bottom side**          **Back side**

### Flexible installation

Ceiling concealed

Floor concealed

### Filter (Accessory)

ARXB07/09       (2 pcs.)

ARXB12/14/18       (3 pcs.)
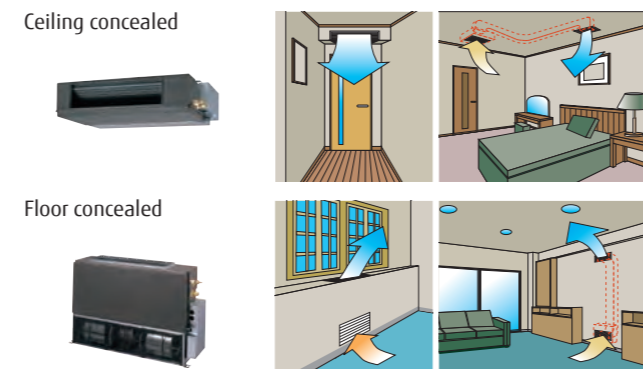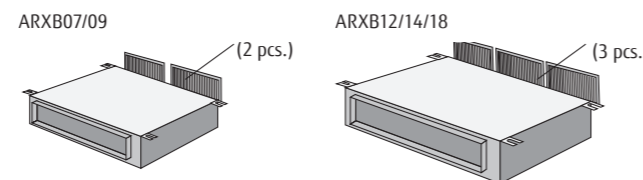
### Optional parts

Remote Sensor Unit : UTY-XSZXZ1
IR Receiver Unit :     UTB-YWC
Drain Pump Unit :     UTZ-PX1BBA

## Specifications

| Model name | | | ARXB07GALH | ARXB09GALH | ARXB12GALH | ARXB14GALH | ARXB18GALH |
|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | | |
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 | 5.6 |
| | Heating | | 2.8 | 3.2 | 4.0 | 5.0 | 6.3 |
| Input power | | W | 46 | 55 | 63 | 90 | 96 |
| Airflow rate | High | m³/h | 370 | 440 | 590 | 800 | 890 |
| | Med | | 310 | 370 | 500 | 750 | 810 |
| | Low | | 280 | 340 | 450 | 700 | 730 |
| Static pressure range | | Pa | 0 to 50 | 0 to 50 | 0 to 50 | 0 to 50 | 0 to 50 |
| Standard static pressure | | | 25 | 25 | 25 | 25 | 25 |
| Sound pressure level | High | dB (A) | 29 | 31 | 30 | 33 | 36 |
| | Med | | 26 | 29 | 28 | 32 | 34 |
| | Low | | 24 | 27 | 25 | 30 | 30 |
| Dimensions (H × W × D) | | mm | 217 × 663 × 595 | 217 × 663 × 595 | 217 × 663 × 595 | 217 × 953 × 595 | 217 × 953 × 595 |
| Weight | | kg | 15 | 15 | 22 | 22 | 23 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 9.52 |
| | Gas (Flare) | | 12.70 | 12.70 | 12.70 | 12.70 | 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) (   ): AR07/AR09

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

886 (596)
170

886 (596) (Bolt pitch)
Control box
595
390 (Bolt pitch)
166
20   24
850 (560)
47
85

217
194
587
①  ③
②
364
65 75
150

953 (663)
94 (50)   600 (400)
217
150
10

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

INDOOR UNITS
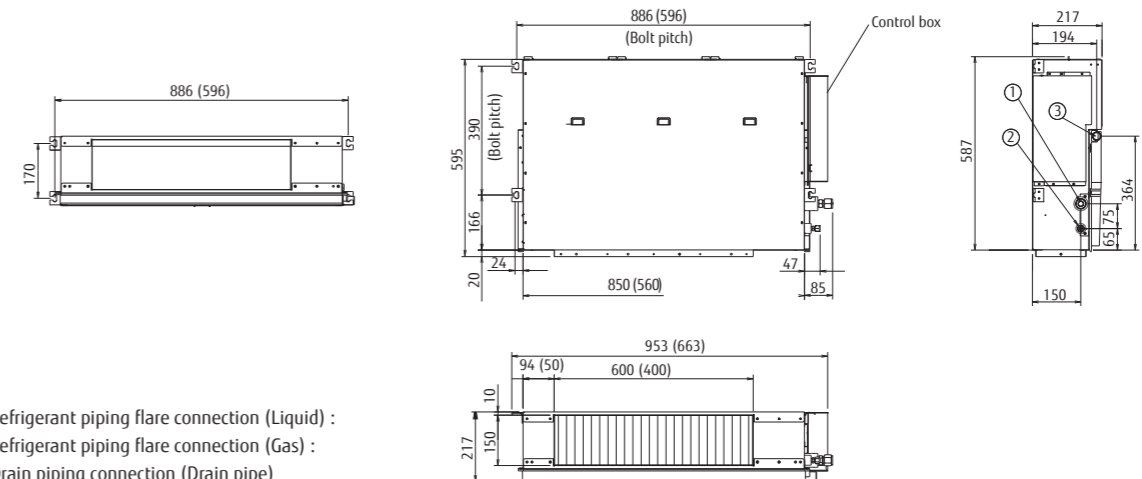
# Slim Duct / Slim Concealed Floor

**Models** (With drain pump)
ARXD007GLEH / ARXD009GLEH / ARXD012GLEH
ARXD014GLEH / ARXD018GLEH / ARXD024GLEH
ARXD07GATH / ARXD09GATH / ARXD12GATH
ARXD14GATH / ARXD18GATH / ARXD24GATH

ARXD007 ARXD009 ARXD012 ARXD014
ARXD07 ARXD09 ARXD12 ARXD14

ARXD018 ARXD18

ARXD024 ARXD24

Slim Concealed Floor

**DC FAN**

## Feature

### Slim design

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

Drain port

Height
**198 mm**

Drain pump

**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
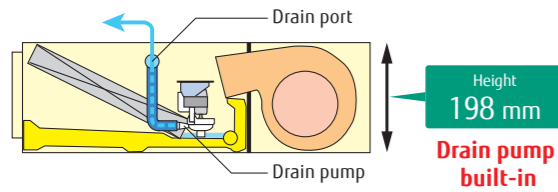
### Selectable with a wide range of static pressure

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**
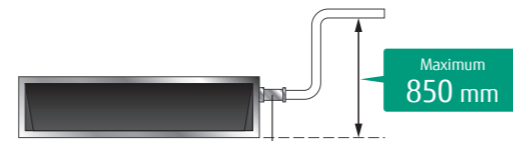
Drain hose is standard accessory

### Filter (Accessory)

7/9/12/14/18 models          (2 pcs.)

24 model          (3 pcs.)
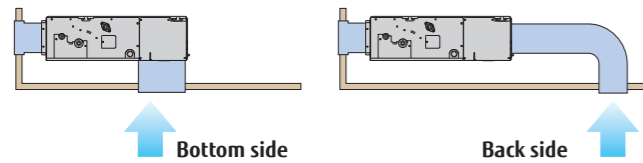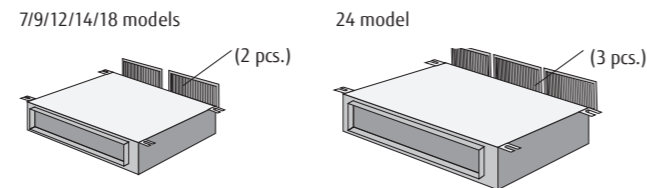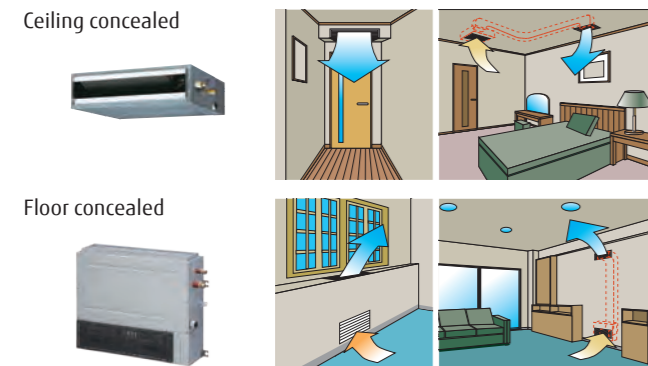
## Auto Louver Grille Kit (Option)

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

Slim Duct          Auto Louver Grille

Wired Remote Controller          Wireless Remote Controller
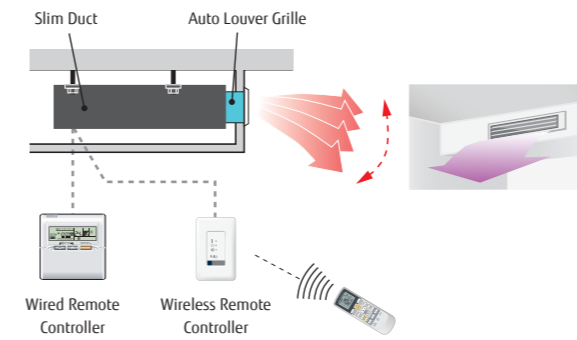
## Optional parts

| | |
|---|---|
| Remote Sensor Unit : | UTY-XSZXZ1 |
| IR Receiver Unit : | UTB-YWC (For ARXD∗∗GATH) |
| | UTY-TRHX (For ARXD∗∗∗GLEH) |
| Auto Louver Grille Kit: | UTD-GXTA-W (for 7/9/12/14 models) |
| | UTD-GXTB-W (for 18 model) |
| | UTD-GXTC-W (for 24 model) |
| External Power Supply Unit : | UTZ-GXXC (ARXD∗∗∗GLEH) |

## Specifications

| Model name | | | ARXD007GLEH ARXD07GATH | ARXD009GLEH ARXD09GATH | ARXD012GLEH ARXD12GATH | ARXD014GLEH ARXD14GATH | ARXD018GLEH ARXD18GATH | ARXD024GLEH ARXD24GATH |
|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, | | | | | |
| 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 | 550 | 600 | 600 | 800 | 940 | 1,330 |
| | Med-High*¹ | | 520 | 510 | 530 | 680 | 820 | 1,140 |
| | Med | | 480 | 460 | 490 | 600 | 730 | 1,020 |
| | Med-Low*¹ | | 410 | 420 | 450 | 520 | 630 | 900 |
| | Low | | 370 | 370 | 410 | 440 | 540 | 780 |
| | Quiet*¹ | | 320 | 320 | 340 | 340 | 470 | 610 |
| 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-High*¹ | | 26 | 27 | 28 | 32 | 31 | 31 |
| | Med | | 25 | 25 | 27 | 30 | 29 | 29 |
| | Med-Low*¹ | | 24 | 24 | 26 | 28 | 27 | 27 |
| | Low | | 22 | 22 | 24 | 25 | 25 | 24 |
| | Quiet*¹ | | 21 | 21 | 22 | 22 | 23 | 21 |
| 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 | 17 | 17 | 18 | 18 | 22 | 26 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 | 6.35 / 9.52*² | 9.52 |
| | Gas (Flare) | | 9.52/12.70*² | 9.52/12.70*² | 12.70 | 12.70 | 12.70 / 15.88*² | 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.

*1: ARXD∗∗∗GLEH only
*2: GLEH / GATH

## Dimensions (Unit: mm)

*Service accessibility must be allowed for when installing the product.
 Please consult the installation manual for the necessary service access size.
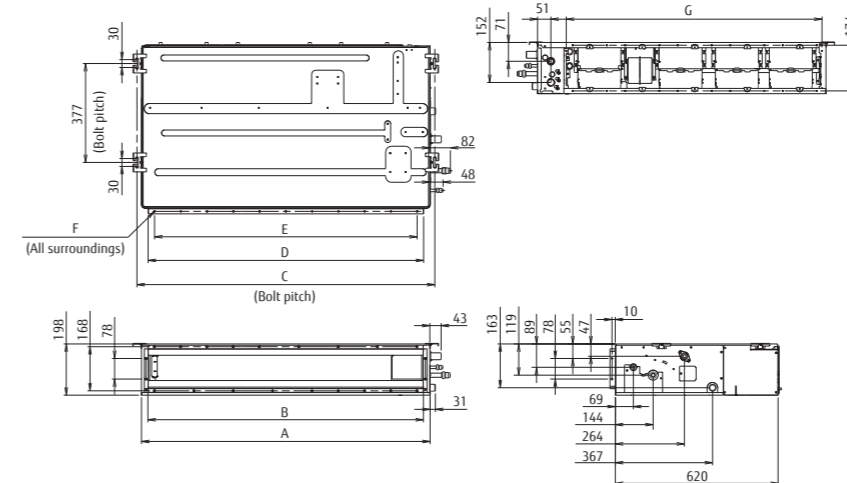
| | ARXD07-14 | ARXD18 | ARXD24 |
|---|---|---|---|
| A | 700 | 900 | 1,100 |
| B | 650 | 850 | 1,050 |
| C | 734 | 934 | 1,134 |
| D | 650 | 850 | 1,050 |
| E | P100x6=600 | P100x8=800 | P100x10=1,000 |
| F | 18xØ5 | 22xØ5 | 26xØ5 |
| G | 574 | 774 | 974 |

INDOOR UNITS

# Low / Medium Static Pressure Duct

**Models** (Low Static Pressure Duct)
ARXB24GALH / ARXB30GALH
ARXB36GALH / ARXB45GALH

**Models** (Medium Static Pressure Duct)
ARXA024GLEH / ARXA030GLEH
ARXA036GLEH / ARXA045GLEH

ARXA24GBTH / ARXA30GBTH
ARXA36GBTH / 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.
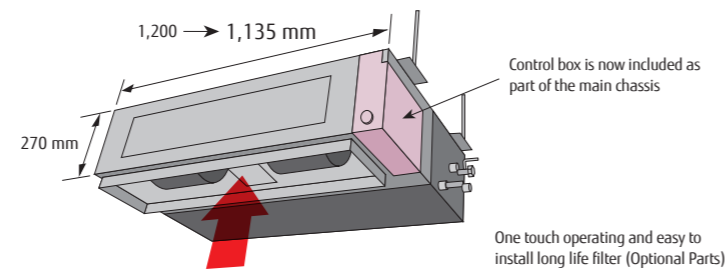
1,200 → 1,135 mm
270 mm

Control box is now included as part of the main chassis

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

## Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.

24 model     30 / 36 / 45 model
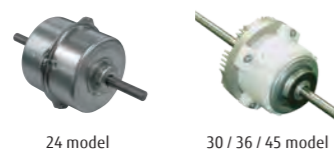
## Can be installed for various location

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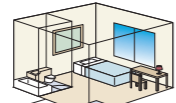
It can also be installed in wide spade when high static pressure is required, such as for offices.

## Easy maintenance

See below for the case of rear suction type

Previous model          **New model**

Large bottom panel: 1 piece          Bottom panel: 2 pieces

1.Control box   2.Fan casing   3.Fan   4.Motor
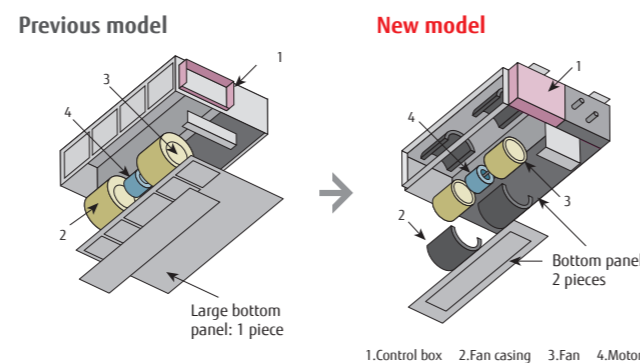
Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.

## 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**

## 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**
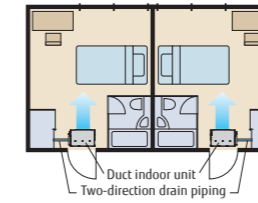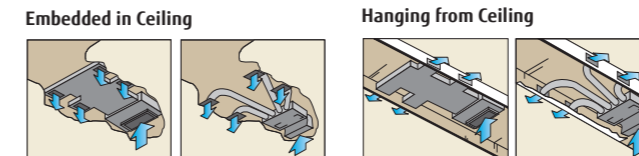
## Optional parts

Remote Sensor Unit : UTY-XSZXZ1
Long Life Filter : UTD-LF25NA (For ARXA**GLEH, ARXB**GBTH)
Flange (Square) : UTD-SF045T (For ARXA**GLEH, ARXB**GBTH)
Flange (Round) : UTD-RF204 (For ARXA**GLEH, ARXB**GBTH)
IR Receiver Unit : UTB-YWC (For ARXB**GALH, ARXA**GBTH)
UTY-TRHX (For ARXA**GLEH)
Drain Pump Unit : UTZ-PX1NBA
External Power Supply Unit: UTZ-GXXC (ARXA***GLEH)

## Specifications

| Model name | | | ARXB24GALH | ARXB30GALH | ARXB36GALH | ARXB45GALH | ARXA024GLEH ARXA24GBTH | ARXA030GLEH ARXA30GBTH | ARXA036GLEH ARXA36GBTH | ARXA045GLEH ARXA45GBTH |
|---|---|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | | | | | |
| Capacity | Cooling | kW | 7.1 | 9.0 | 11.2 | 12.5 | 7.1 | 9.0 | 11.2 | 12.5 |
| | Heating | | 8.0 | 10.0 | 12.5 | 14.0 | 8.0 | 10.0 | 12.5 | 14.0 |
| Input power | | W | 145 | 198 | 253 | 338 | 94 | 108 | 194 | 240 |
| Airflow rate | High | m³/h | 1,100 | 1,410 | 1,710 | 1,970 | 1,280 | 1,410 | 1,840 | 1,970 |
| | Med-High*1 | | - | - | - | - | 1,180 | 1,350 | 1,750 | 1,910 |
| | Med | | 920 | 1,280 | 1,600 | 1,790 | 1,090 | 1,280 | 1,660 | 1,860 |
| | Med-Low*1 | | - | - | - | - | 1,000 | 1,240 | 1,600 | 1,780 |
| | Low | | 810 | 1,150 | 1,470 | 1,670 | 920 | 1,190 | 1,530 | 1,710 |
| | Quiet*1 | | - | - | - | - | 840 | 1,150 | 1,470 | 1,640 |
| Static pressure range | | Pa | 0 to 80 | 0 to 80 | 0 to 80 | 0 to 80 | 0 to 150 | 0 to 150 | 0 to 150 | 0 to 150 |
| Standard static pressure | | | 40 | 50 | 50 | 60 | 40 | 50 | 50 | 60 |
| Sound pressure level | High | dB (A) | 31 | 34 | 37 | 41 | 31 | 34 | 37 | 41 |
| | Med-High*1 | | - | - | - | - | 29 | 33 | 36 | 40 |
| | Med | | 27 | 32 | 35 | 38 | 27 | 32 | 35 | 38 |
| | Med-Low*1 | | - | - | - | - | 26 | 31 | 35 | 38 |
| | Low | | 25 | 29 | 33 | 36 | 24 | 30 | 34 | 37 |
| | Quiet*1 | | - | - | - | - | 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 | 270 × 1,135 × 700 | 270 × 1,135 × 700 | 270 × 1,135 × 700 | 270 × 1,135 × 700 |
| Weight | | kg | 39 | 42 | 42 | 42 | 36 | 40 | 40 | 40 |
| Connection pipe diameter | Liquid (Flare) | mm | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 | 9.52 |
| | Gas (Flare) | | 15.88 | 15.88 | 19.05 | 19.05 | 15.88 | 15.88 | 15.88 / 19.05*2 | 15.88 / 19.05*2 |
| 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.

*1: ARXA***GLEH only
*2: GLEH / GBTH

## 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)

**INDOOR UNITS**
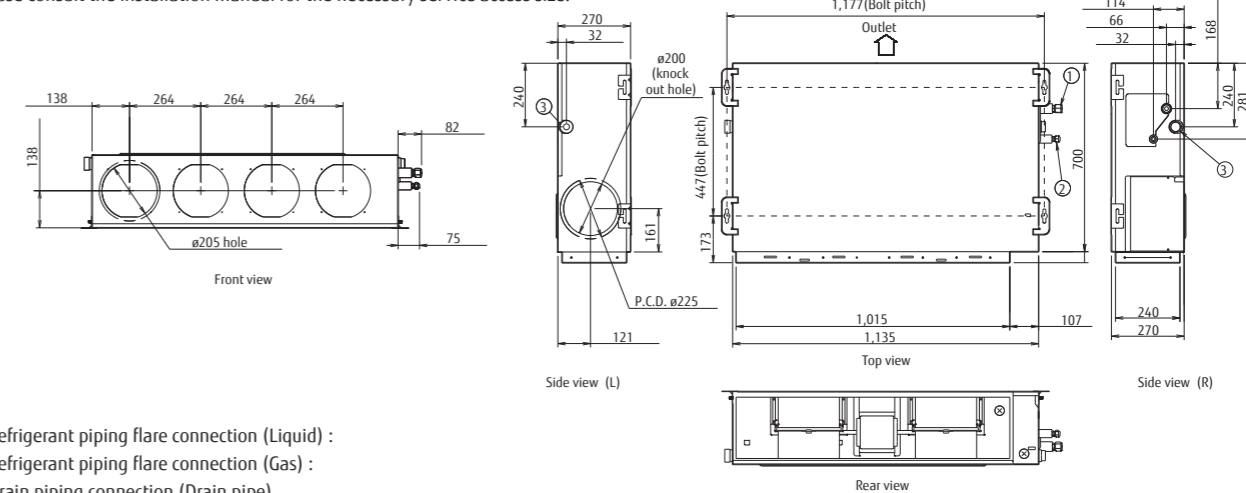
# High Static Pressure Duct

**Models**
ARXC036GTEH / ARXC045GTEH / ARXC060GTEH

**Models**
ARXC072GTEH / ARXC090GTEH

**Models**
ARXC096GTEH

ARXC036  ARXC045  ARXC060

ARXC072  ARXC090

ARXC096

## Features

### Static pressure selection

By using DC fan motor, it is possible to change the static pressure range from
0 to 200Pa (036GTEH ) / 250Pa (045 / 060GTEH) / 300Pa (072 / 090 / 096GTEH).

[Pa]
200 or 300

0

Air flow rate

[m³/h]

Maximum
**250**Pa
(045 / 060GTEH)

Maximum
**300**Pa
(072 / 090GTEH)

Maximum
**300**Pa
(096GTEH)

Maximum
**200**Pa
(036GTEH)
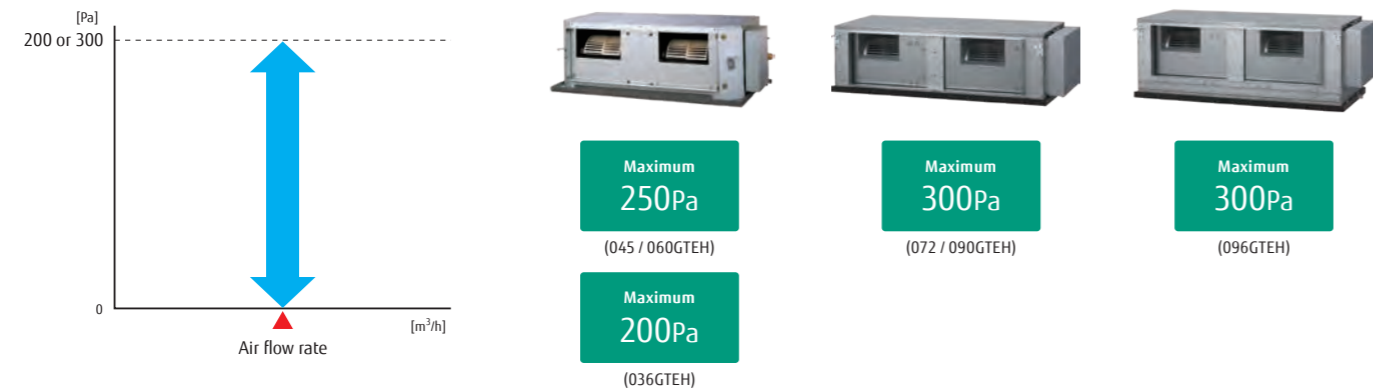
## Low noise

### 036 / 045 / 060 models

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.
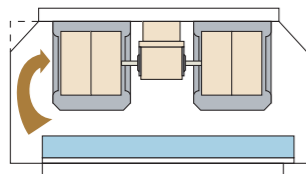
### 036 model : Plastic fan [42dB(A)]

* Model : Material
(At 100 Pa : Actual noise
measurement value)
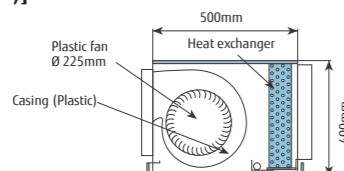
500mm
Heat exchanger
Plastic fan
Ø 225mm
Casing (Plastic)
400mm

## Low energy consumption by high efficiency DC fan motor

Improved motor efficiency
from previous model.

(036 / 045 / 060 models)       (072 / 090 / 096 models)
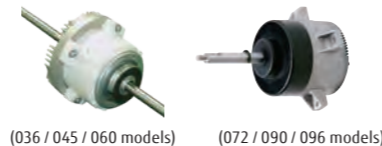
## Easy installation (Compact size & Lightweight)

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

(Unit:mm)

(036 / 045 / 060 models)
400
1,050    500

(072 / 090 models)
450
1,587    700

(096 model)
550
1,587    700
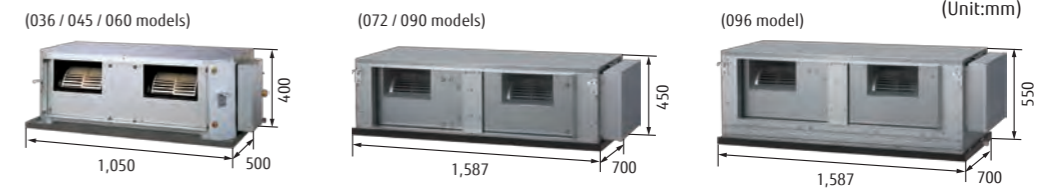
### Optional parts

Long-Life Filter :        UTD-LF60KA (For 036 / 045 / 060 models)
IR Receiver Unit :        UTY-TRHX
Remote Sensor Unit :      UTY-XSZXZ1
External Power Supply Unit: UTZ-GXXC

## Specifications

| Model name | | | ARXC036GTEH | ARXC045GTEH | ARXC060GTEH* | ARXC072GTEH* | ARXC090GTEH* | ARXC096GTEH* |
|---|---|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | | | |
| Capacity | Cooling | kW | 11.2 | 12.5 | 18.0 | 22.4 | 25.0 | 28.0 |
| | Heating | | 12.5 | 14.0 | 20.0 | 25.0 | 28.0 | 31.5 |
| Input power | | W | 207 | 715 | 730 | 681 | 819 | 838 |
| Airflow rate | High | m³/h | 1,990 | 3,500 | 3,500 | 3,900 | 4,300 | 4,850 |
| | Med | | 1,680 | 3,000 | 3,000 | 3,300 | 4,000 | 4,250 |
| | Low | | 1,330 | 2,460 | 2,460 | 3,000 | 3,500 | 3,600 |
| Static pressure range | | Pa | 0 to 200 | 100 to 250 | 100 to 250 | 0 to 300 | 0 to 300 | 0 to 300 |
| Standard static pressure | | | 100 | 100 | 100 | 150 | 150 | 150 |
| Sound pressure level | High | dB (A) | 42 | 49 | 49 | 47 | 48 | 48 |
| | Med | | 36 | 45 | 45 | 43 | 46 | 45 |
| | Low | | 32 | 42 | 42 | 40 | 44 | 42 |
| Dimensions (H × W × D) | | mm | 400 × 1,050 × 500 | 400 × 1,050 × 500 | 400 × 1,050 × 500 | 450 × 1,587 × 700 | 450 × 1,587 × 700 | 550 × 1,587 × 700 |
| Weight | | kg | 40 | 46 (101) | 46 (101) | 84 | 84 | 105 |
| Connection pipe diameter | Liquid | mm | 9.52 (Flare) | 9.52 (Flare) | 9.52 (Flare) | 9.52 (Flare) | 9.52(Flare) | 9.52 (Brazing) |
| | Gas | | 15.88 (Flare) | 15.88 (Flare) | 15.88 (Flare) | 19.05(Flare) | 19.05(Flare) | 22.22 (Brazing) |
| Drain hose diameter (I.D./O.D.) | | | 25 / 32 | | | | | |

Note : Specifications are based on the following conditions.                         * 060 / 072 / 090 / 096 models cannot be connected to J-III / J-IIS Series.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.

## Dimensions (Unit: mm)

Models: ARXC036, ARXC045, ARXC060
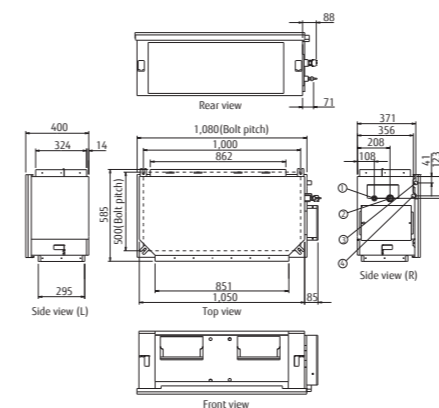
Models: ARXC072, ARXC090
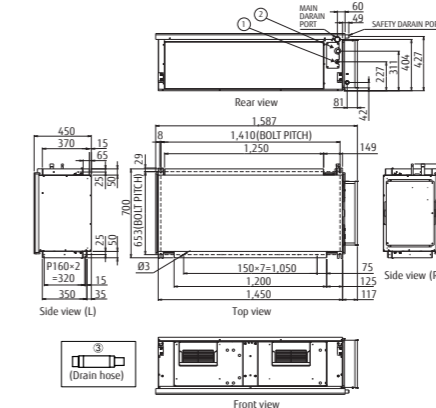
Models: ARXC096
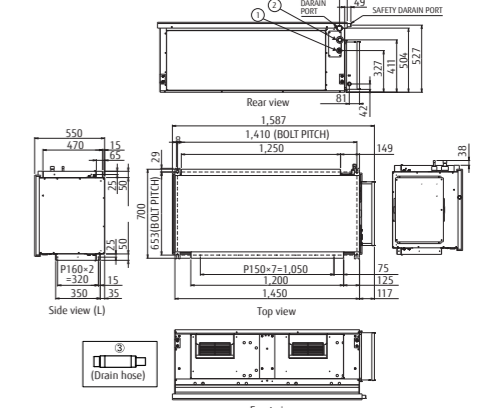
① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

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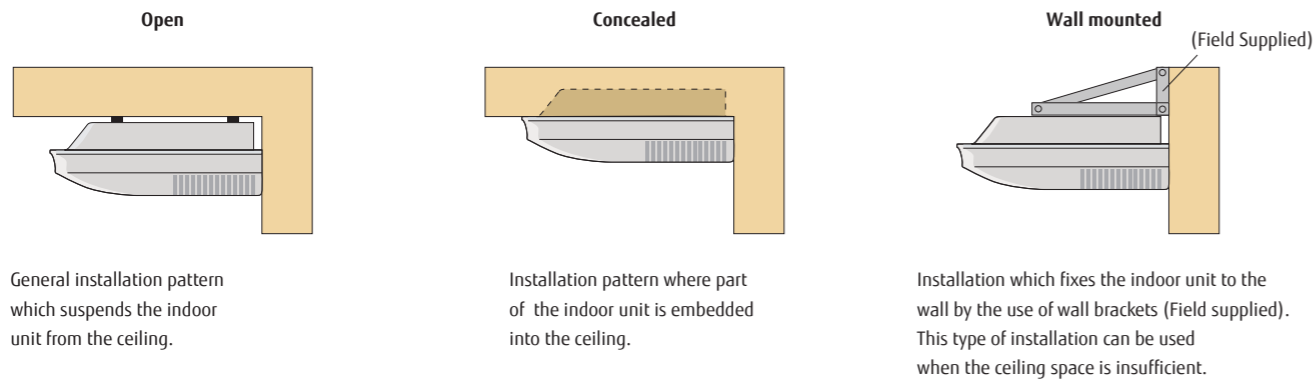② Refrigerant pipe flare connection (Gas)
③ Drain hose

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

INDOOR UNITS

# Floor (Compact)

**Models** (EEV internal)
**AGYA007GCGH / AGYA009GCGH**
**AGYA012GCGH / AGYA014GCGH**

**DC FAN**

## Feature

### 2-Fan & Wide airflow

Individual vertical airflow by 2-fan can control the whole room comfortably.

**Cooling**

Prevents cold air from falling

at operation start

at stable operation

**Heating**

Window

Prevents cold draft from window

at stable operation

### Quiet operation

Quiet operation is realized by 6 fan speed control.
(via 2 wire controller)

**Low noise**
**22 dB(A)**
at 7/9 models
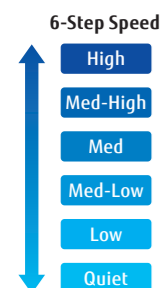
**6-Step Speed**

High
Med-High
Med
Med-Low
Low
Quiet

\* Compatible Remote Controller is as follows:
UTY-RNRYZ5 / UTY-RLRY / UTY-RSRY / UTY-RHRY / UTY-DCGYZ2 / UTY-ALGXZ1 / UTY-APGXZ1

### Flexible & easy installation

Due to compact and whole surface suction method model, floor, concealed, half concealed, or wall mounted installation can be available to match the room layout.

**Beneath standard window**
(unit:mm)
600
700
740
200

**Standard concave portion**
Minimum 900
Minimum 700
(unit:mm)

**Wall**
(unit:mm)
Maximum 150

**Half concealed**
(Optional parts necessary)
(unit:mm)
Minimum 590
Minimum 730
Maximum 80

### Flexible piping connection
### 6 direction of drain & piping

Drain horse and piping can be drawn flexibly in the right, left, side, and down directions

Back view

1  6
2  5
3  4
Drain hose  Piping
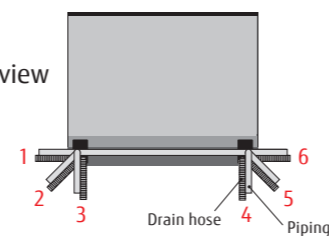
### Optional parts

Half concealed kit:                UTR-STA
External Power Supply Unit: UTZ-GXXC

## Specifications

| Model name | | | AGYA007GCGH | AGYA009GCGH | AGYA012GCGH | AGYA014GCGH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | |
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.0 |
| | Heating | | 2.8 | 3.2 | 4.0 | 4.5 |
| Input power | | W | 16 | 17 | 22 | 29 |
| Airflow rate | High | m³/h | 470 | 500 | 590 | 670 |
| | Med-High | | 420 | 450 | 520 | 590 |
| | Med | | 390 | 400 | 470 | 520 |
| | Med-Low | | 360 | 360 | 420 | 450 |
| | Low | | 330 | 330 | 390 | 390 |
| | Quiet | | 270 | 270 | 340 | 340 |
| Sound pressure level | High | dB (A) | 37 | 38 | 42 | 46 |
| | Med-High | | 35 | 36 | 39 | 42 |
| | Med | | 33 | 34 | 37 | 39 |
| | Med-Low | | 31 | 31 | 35 | 36 |
| | Low | | 29 | 29 | 33 | 33 |
| | Quiet | | 22 | 22 | 30 | 30 |
| Dimensions (H × W × D) | | mm | 600 × 740 × 200 | 600 × 740 × 200 | 600 × 740 × 200 | 600 × 740 × 200 |
| Weight | | kg | 15 | 15 | 15 | 15 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 |
| | Gas (Flare) | | 9.52 | 9.52 | 12.70 | 12.70 |
| Drain hose diameter (I.D./O.D.) | | | 13.8 / 15.8 to 16.7 | | | |

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

When AGYA007GCGH and AGYA009GCGH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø12.70.

## Dimensions (Unit: mm)

200
600
740
Front view
Side view

**INDOOR UNITS**
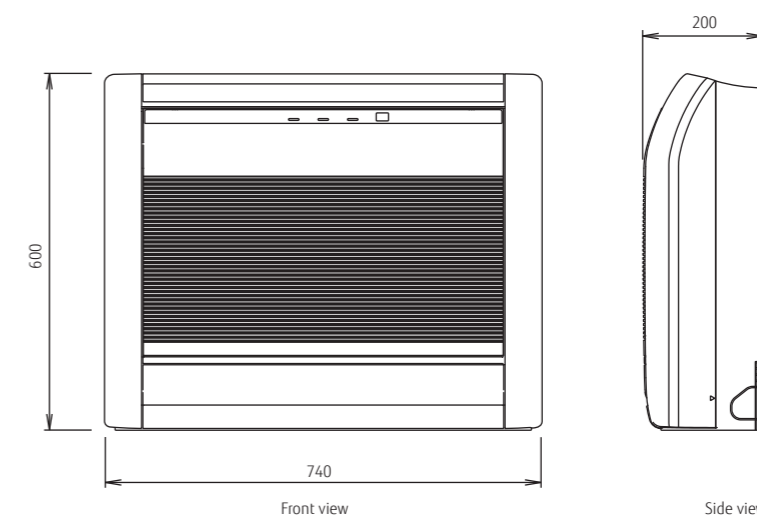
# Floor / Ceiling

**Models**
ABYA012GTEH / ABYA014GTEH
ABYA018GTEH / ABYA024GTEH

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

1 2 3 4 5

UP and DOWN SWING

1 2 3 4
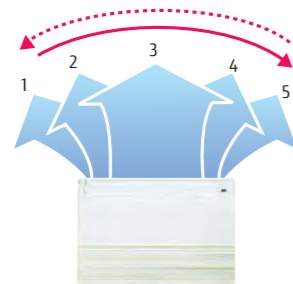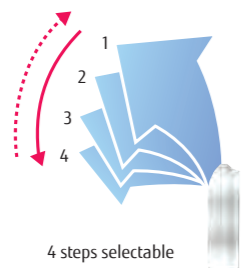
4 steps selectable

## 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.

### Optional parts

External Power Supply Unit : UTZ-GXXC

## Specifications

| Model name | | | ABYA012GTEH | ABYA014GTEH | ABYA018GTEH | ABYA024GTEH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 660 | 780 | 1,000 | 1,000 |
| | Med-High | | 620 | 740 | 910 | 930 |
| | Med | | 580 | 690 | 830 | 870 |
| | Med-Low | | 550 | 640 | 750 | 800 |
| | Low | | 520 | 600 | 660 | 740 |
| | Quiet | | 490 | 550 | 580 | 680 |
| Sound pressure level | High | dB (A) | 36 | 40 | 46 | 47 |
| | Med-High | | 34 | 39 | 44 | 45 |
| | Med | | 33 | 38 | 42 | 43 |
| | Med-Low | | 31 | 36 | 40 | 41 |
| | Low | | 29 | 35 | 37 | 39 |
| | Quiet | | 28 | 34 | 35 | 37 |
| Dimensions (H × W × D) | | mm | 199 × 990 × 655 | 199 × 990 × 655 | 199 × 990 × 655 | 199 × 990 × 655 |
| Weight | | kg | 25 | 26 | 26 | 27 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 9.52 |
| | Gas (Flare) | | 12.70 | 12.70 | 12.70 | 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

INDOOR UNITS

# Ceiling

**Models**
ABYA030GTEH / ABYA036GTEH
ABYA045GTEH / ABYA054GTEH

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**

4 steps selectable
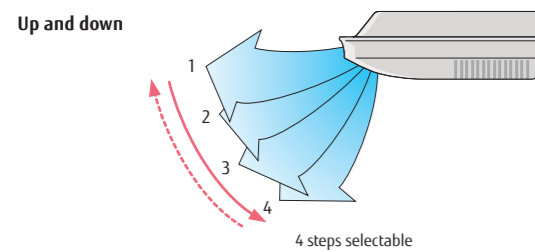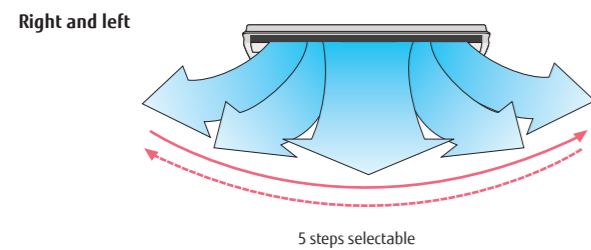
## Long airflow

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

Long distance air-flow
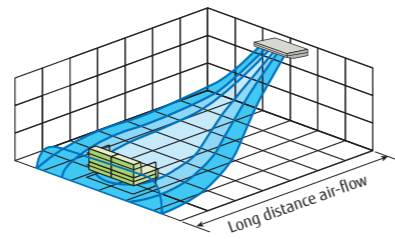
## High power DC fan motor

• High power    • Wide rotation range    • High efficiency

## Fresh air intake

Indoor    Outdoor    Fresh air
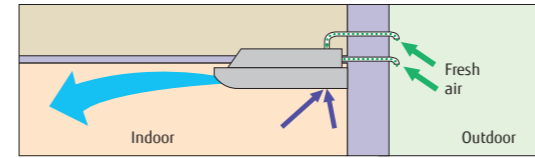
## Slim & Compact design

Hight
**240** mm
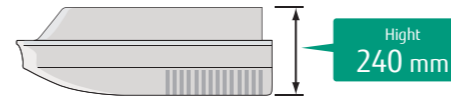
## High lift drain pump

Optional drain pump unit allows flexible installation design.

Maximum
**500** mm
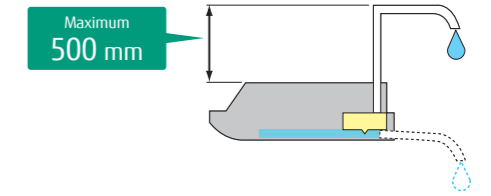
### Optional parts

Drain Pump Unit :            UTR-DPB24T
Flange :                         UTD-RF204
External Power Supply Unit : UTZ-GXXC

## Specifications

| Model name | | | ABYA030GTEH | ABYA036GTEH | ABYA045GTEH | ABYA054GTEH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 1,630 | 1,690 | 2,010 | 2,270 |
| | Med-High | | 1,520 | 1,560 | 1,840 | 2,070 |
| | Med | | 1,420 | 1,450 | 1,690 | 1,860 |
| | Med-Low | | 1,320 | 1,360 | 1,530 | 1,660 |
| | Low | | 1,220 | 1,270 | 1,380 | 1,470 |
| | Quiet | | 1,140 | 1,170 | 1,230 | 1,280 |
| Sound pressure level | High | dB (A) | 42 | 45 | 48 | 51 |
| | Med-High | | 40 | 41 | 46 | 49 |
| | Med | | 39 | 39 | 45 | 46 |
| | Med-Low | | 37 | 38 | 41 | 43 |
| | Low | | 35 | 36 | 38 | 40 |
| | Quiet | | 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 | 46 | 48 | 48 | 48 |
| Connection pipe diameter | Liquid (Flare) | mm | 9.52 | 9.52 | 9.52 | 9.52 |
| | Gas (Flare) | | 15.88 | 15.88 | 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

INDOOR UNITS

104

105

# Wall Mounted

**Models** (EEV internal)
**ASYA07GATH / ASYA09GATH**
**ASYA12GATH / ASYA14GATH**

## 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**
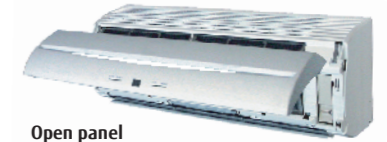
## Symmetrical design

Symmetrical, clean design that suits all interiors.

**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)
160 120 80 40 0
0 30 60 120 (min)
With no filter
New filter

**Trimethylamine**

(ppm)
160 120 80 40 0
0 30 60 120 (min)
With no filter
New filter

**Hydrogen sulfate**

(ppm)
160 120 80 40 0
0 30 60 120 (min)
With no filter
New filter
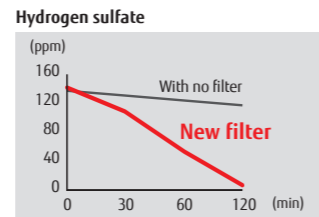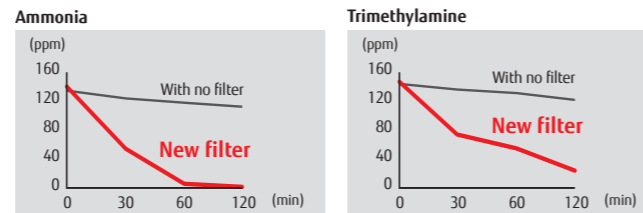
High performance filters have been thoroughly tested by the Environmental Sanitary Inspection Center using an advanced Deodorization Test.

## 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
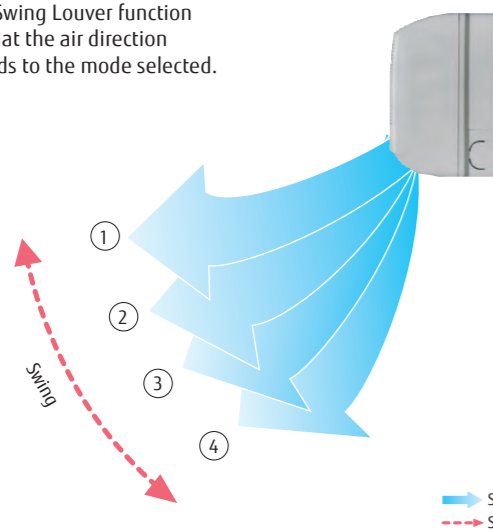
## Compact size

### 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
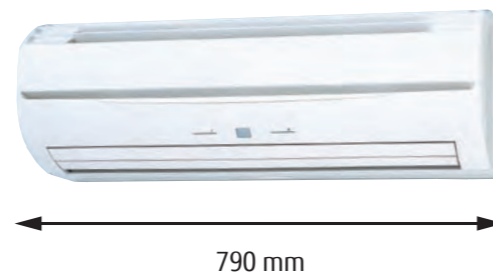
## Specifications

| Model name | | | ASYA07GATH | ASYA09GATH | ASYA12GATH | ASYA14GATH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | |
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.5 |
| | Heating | | 2.8 | 3.2 | 4.1 | 5.0 |
| Input power | | W | 17 | 18 | 22 | 34 |
| Airflow rate | High | m³/h | 490 | 500 | 560 | 670 |
| | Med | | 450 | 450 | 480 | 490 |
| | Low | | 370/420* | 370/420* | 420 | 420 |
| Sound pressure level | High | dB (A) | 35 | 36 | 39 | 44 |
| | Med | | 33 | 33 | 35 | 37 |
| | Low | | 27/31* | 27/31* | 31 | 32 |
| Dimensions (H × W × D) | | mm | 275 × 790 × 215 | 275 × 790 × 215 | 275 × 790 × 215 | 275 × 790 × 215 |
| Weight | | kg | 9 | 9 | 9 | 9 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 |
| | Gas (Flare) | | 12.70 | 12.70 | 12.70 | 12.70 |
| Drain hose diameter (I.D./O.D.) | | | 13.8 / 15.8 to 16.7 | | | |

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

*: This value is under cooling operation.

## Dimensions (Unit:  mm)
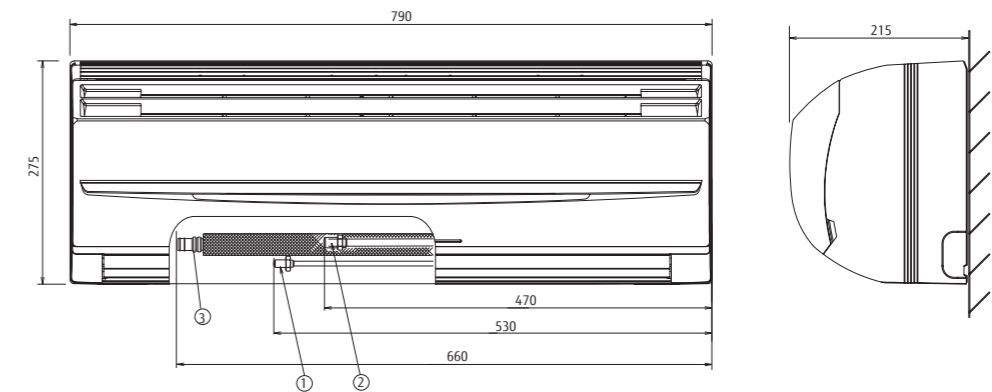
790
215
275
470
530
660

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

INDOOR UNITS

# Wall Mounted

**Models** (EEV internal)
**ASYA007GTEH / ASYA009GTEH**



DC FAN

## Feature

### High efficient compact design

Ø5mm high density heat exchanger is mounted for the first time in the industry.



**High density heat exchanger**

φ5
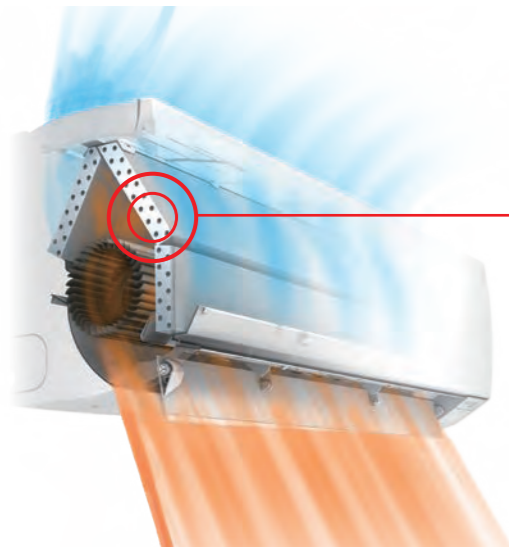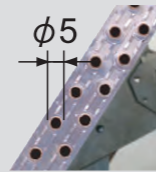
**Making the tube thin:**

**7 mm → 5 mm**

Increase of heat exchanger volume by high density and adopting sub heat exchanger

### 6 Fan Speed Control

Multistep airflow control is possible to suit the environment.

| Fan speed | Low noise |
|---|---|
| Quiet | 22 dB(A) |

**6-Step Speed**

High
Med-H
Med
Med-L
Low
Quiet

\* Compatible Remote Controller is as follows:
UTY-RNRYZ5 / UTY-RLRY / UTY-RSRY / UTY-RHRY / UTY-DCGYZ2 / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

### Easy installation

Communication wiring can be installed easily by only opening the front panel and wire cover.
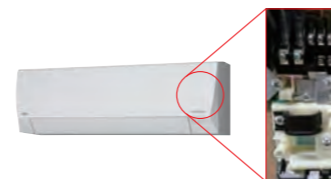


### Optimized design matches to a small room

Efficient operation and refrigerant saving are realized by optimum heat exchanger design suited for small rooms.

### Optional parts

External Power Supply Unit: UTZ-GXXC

INDOOR UNITS

## Specifications

| Model name | | | ASYA007GTEH | ASYA009GTEH |
|---|---|---|---|---|
| Power source | | | Single - phase, ~230V, | |
| Capacity | Cooling | kW | 2.2 | 2.8 |
| | Heating | | 2.8 | 3.2 |
| Input power | | W | 19 | 34 |
| Airflow rate | High | m³/h | 550 | 720 |
| | Med-H | | 460 | 570 |
| | Med | | 420 | 500 |
| | Med-L | | 390 | 410 |
| | Low | | 360 | 360 |
| | Quiet | | 330 | 330 |
| Sound pressure level | High | dB (A) | 35 | 43 |
| | Med-H | | 32 | 38 |
| | Med | | 30 | 34 |
| | Med-L | | 27 | 29 |
| | Low | | 24 | 24 |
| | Quiet | | 22 | 22 |
| Dimensions (H × W × D) | | mm | 262×820×206 | 262×820×206 |
| Weight | | kg | 7.5 | 7.5 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 |
| | Gas (Flare) | | 9.52 | 9.52 |
| Drain hose diameter (I.D./O.D.) | | | 13.8 / 15.8 to 16.7 | |

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

When ASYA007GTEH, ASYA009GTEH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø12.70.

## Dimensions (Unit: mm)



820
206
262

# Wall Mounted

**Models** (EEV internal)
**ASYA007GCGH / ASYA009GCGH**
**ASYA012GCGH / ASYA014GCGH**

**DC FAN**

## Feature

### High efficient and compact design

The 007-014 model has a common design.
High efficient compact design is realised by mounting a high density and large heat exchanger.
The compact body makes it possible to install discreetly even in a meeting room or office where comfortable air conditioning is provided.

**High density heat exchanger**

φ5
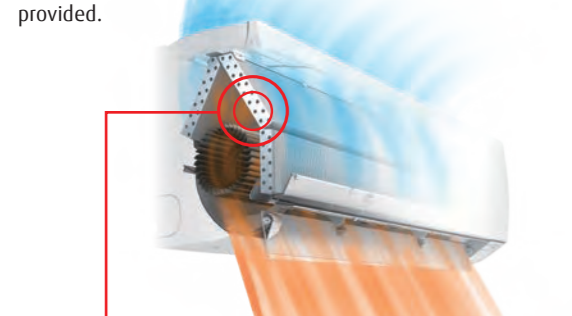
Making the tube thin: **5 mm**
Increase of heat exchanger volume by high density and adopting sub heat exchanger

### Human sensor increases energy saving operation

Energy saving operation starts automatically by detecting the motion of a person in the space. There are 2 modes available, an energy saving mode or a auto off mode available.

Human sensor

People go out.
AUTO SAVE
AUTO OFF

People come back.
AUTO RESET
OFF

### More comfort airflow

Comfortable air conditioning is provided by mounting our unique power diffuser.

**Heating**
Vertical airflow provides powerful floor level heating

Power diffuser

**Cooling**
Horizontal airflow does not blow cool air directly at the occupants in the room.

Power diffuser

### Quiet operation & 6 Fan speed control

Drastic low noise is realized by new airflow structure. In addition, multistep quiet operation is available by 6-step sound level settings.

**-14 %**
(009 model : Hi)

43 dB(A)
37 dB(A)

Current model    New model

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

\* Compatible Remote Controller is as follows:
UTY-RNRYZ5
UTY-RLRY
UTY-RSRY
UTY-RHRY
UTY-DCGYZ2
UTY-ALGXZ1
UTY-APGXZ1

## Optional parts

External Power Supply Unit: UTZ-GXXC

**INDOOR UNITS**
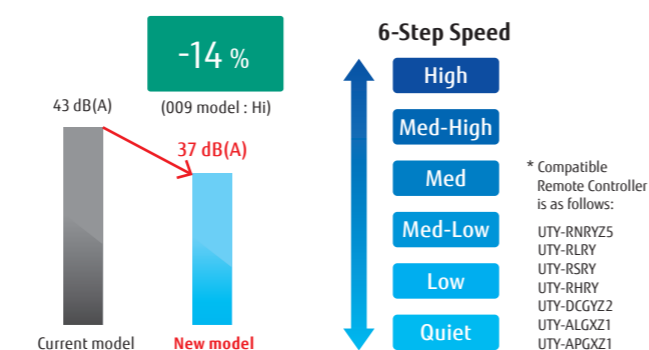
## Specifications

| Model name | | | ASYA007GCGH | ASYA009GCGH | ASYA012GCGH | ASYA014GCGH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | |
| Capacity | Cooling | kW | 2.2 | 2.8 | 3.6 | 4.0 |
| | Heating | | 2.8 | 3.2 | 4.0 | 4.5 |
| Input power | | W | 16 | 20 | 25 | 36 |
| Airflow rate | High | m³/h | 550 | 610 | 690 | 800 |
| | Med-High | | 510 | 560 | 610 | 740 |
| | Med | | 470 | 510 | 560 | 680 |
| | Med-Low | | 410 | 440 | 530 | 610 |
| | Low | | 360 | 360 | 470 | 550 |
| | Quiet | | 310 | 310 | 330 | 330 |
| Sound pressure level | High | dB (A) | 34 | 37 | 40 | 44 |
| | Med-High | | 32 | 35 | 37 | 42 |
| | Med | | 30 | 32 | 35 | 40 |
| | Med-Low | | 28 | 29 | 33 | 37 |
| | Low | | 26 | 26 | 30 | 34 |
| | Quiet | | 22 | 22 | 24 | 24 |
| Dimensions (H × W × D) | | mm | 268 × 840 × 203 | 268 × 840 × 203 | 268 × 840 × 203 | 268 × 840 × 203 |
| Weight | | kg | 8.5 | 8.5 | 8.5 | 8.5 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 6.35 | 6.35 | 6.35 |
| | Gas (Flare) | | 9.52 | 9.52 | 12.70 | 12.70 |
| Drain hose diameter (I.D./O.D.) | | | 13.8 / 15.8 to 16.7 | | | |

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

When ASYA007GCGH and ASYA009GCGH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø12.70.

## Dimensions (Unit: mm)

840
203
268
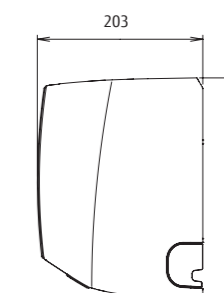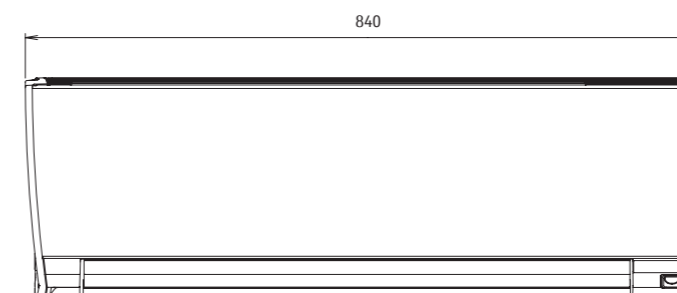
# Wall Mounted

**Models**
ASYA18GACH / ASYA24GACH / ASYA30GACH
ASYA18GATH / ASYA24GATH / ASYA30GATH

**DC FAN**

## Feature

## More comfort airflow by adopting power diffuser

**"Vertical airflow"**
**provides powerful floor level heating**
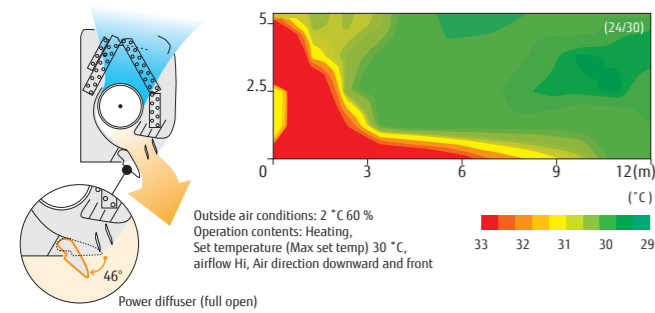


Outside air conditions: 2 ˚C 60 %
Operation contents: Heating,
Set temperature (Max set temp) 30 ˚C,
airflow Hi, Air direction downward and front

Power diffuser (full open)

33  32  31  30  29

**"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
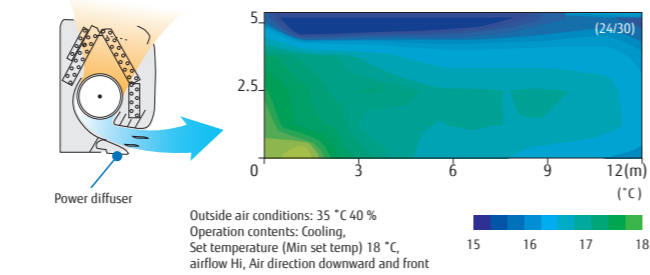
## Double auto swing

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
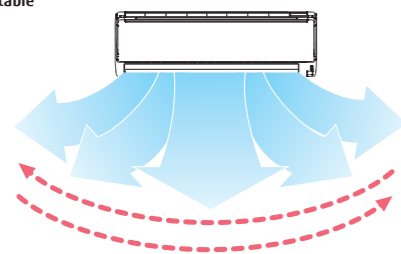
→ Step
--→ Swing
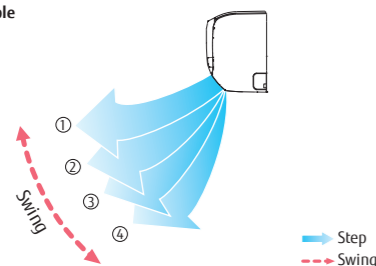
## Air conditioner filter features



Ion Deodorization Filter

Organic coating fin used heat exchanger

Apple-catechin Filter

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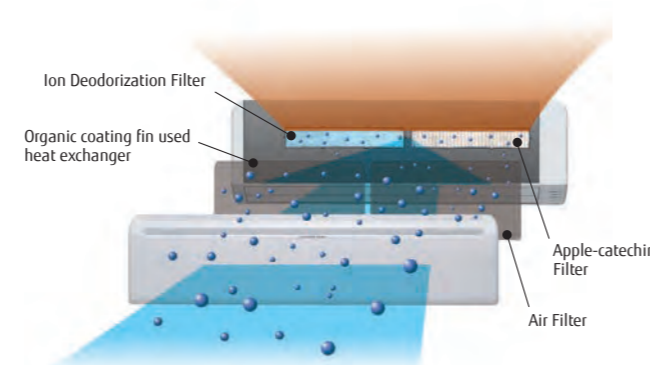
High quality air conditioning by incorporation of high performance filter.

**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.

## Compact & Slim design

By using DC fan motor, compact design is realized.



**Width**
**998 mm**

DC fan motor

## Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

## Specifications

| Model name | | | ASYA18GACH ASYA18GATH | ASYA24GACH ASYA24GATH | ASYA30GACH ASYA30GATH |
|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 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 | 840 | 1,100 | 1,240 |
| | Med | | 770 | 910 | 980 |
| | Low | | 690 | 730 | 770 |
| 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 | 15 | 15 | 15 |
| 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

INDOOR UNITS
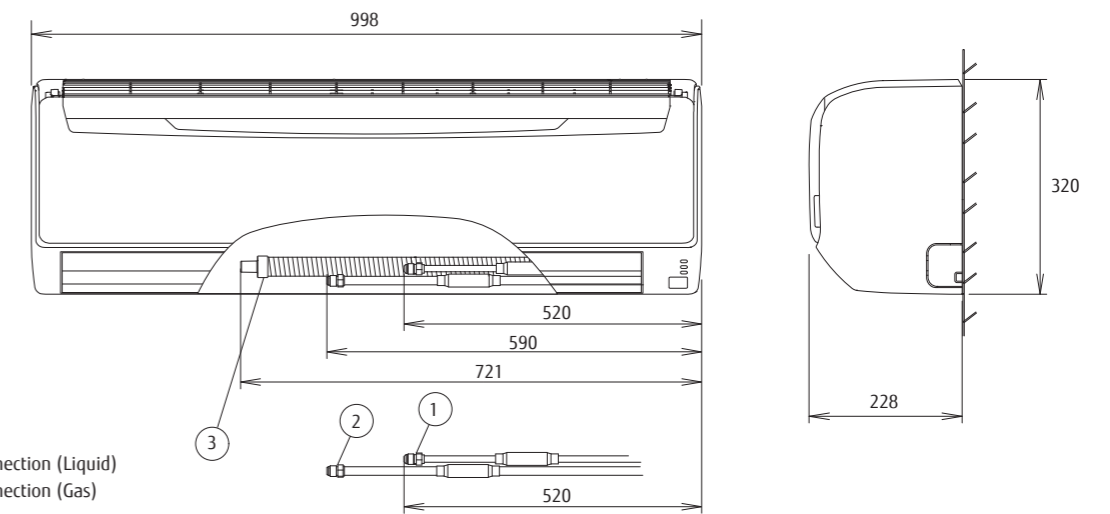
# Wall Mounted

**Models**
ASYA18GBCH / ASYA24GBCH

**Models**
ASYA030GTEH / ASYA034GTEH

ASYA18  ASYA24

ASYA030  ASYA034

**DC FAN**

## Feature

### Powerful & Comfort airflow

**Powerful Airflow**
(30 model)

Airflow
**20% up!**
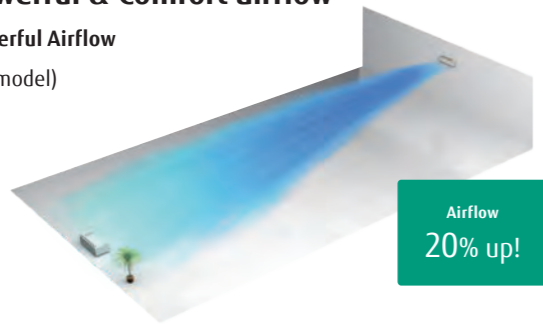
**Power diffuser**
(18/24 models)

Vertical airflow (24)

33  32  31  30  29(°C)

Horizontal airflow (24)

15  16  17  18(°C)
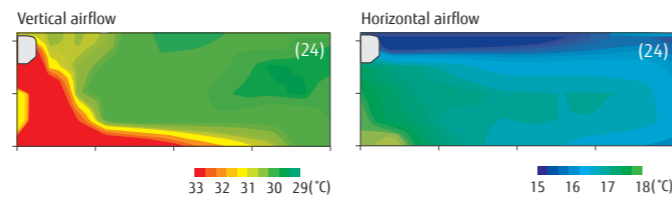
### Human sensor (30/34 models only)

A human sensor senses the movement of humans to reduce operation when one is in the room. the wasteful consumption of energy is reduced automatically to keep down electricity bills.
(Available to wired remote controller as UTY-RNRYZ5 and UTY-DCGYZ2)
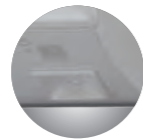
Human sensor

SAVE ▶ AUTO RESET

### Quiet operation & 6 Fan speed control

Drastic low noise is realized by new airflow structure. In addition, multistep quiet operation is available by 6-step sound level settings.

**-2 dB(A)**

35 dB(A)

33 dB(A)

Current model  New model
(30/34 models)
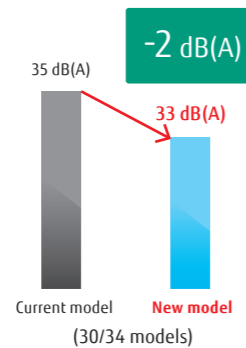
**6-Step Speed**
- High
- Med-High
- Med
- Med-Low
- Low
- Quiet

* Compatible Remote Controller is as follows:
UTY-RNRYZ5 / UTY-RLRY / UTY-RSRY / UTY-RHRY / UTY-DCGYZ2 / UTY-ALGXZ1 / UTY-APGXZ1

### Optional parts

External Power Supply Unit: UTZ-GXXC (ASYA***GTEH)
Silver ion filter II:        UTR-FA16-8 (030/034GTEH)

## Specifications

| Model name | | | ASYA18GBCH | ASYA24GBCH | ASYA030GTEH | ASYA030GTEH |
|---|---|---|---|---|---|---|
| Power source | | | Single phase, ~230V, 50Hz | | | |
| Capacity | Cooling | kW | 5.6 | 7.1 | 9.0 | 10.0 |
| | Heating | | 6.3 | 8.0 | 10.0 | 11.2 |
| Input power | | W | 32 | 60 | 74 | 103 |
| Airflow rate | High | m³/h | 840 | 1,100 | 1,440 | 1,620 / 1,520 |
| | Med-High | | - | - | 1,200 | 1,300 |
| | Med | | 770 | 910 | 1,050 | 1,120 |
| | Med-Low | | - | - | 940 | 980 |
| | Low | | 690 | 730 | 890 | 890 |
| | Quiet | | - | - | 700 | 700 |
| Sound pressure level | High | dB (A) | 41 | 48 | 53 | 55 / 54 |
| | Med-High | | - | - | 49 | 51 |
| | Med | | 39 | 43 | 45 | 47 |
| | Med-Low | | - | - | 42 | 43 |
| | Low | | 35 | 35 | 39 | 39 |
| | Quiet | | - | - | 33 | 33 |
| Dimensions (H × W × D) | | mm | 320 × 998 × 238 | 320 × 998 × 238 | 340 x 1,150 x 280 | 340 x 1,150 x 280 |
| Weight | | kg | 15 | 15 | 18 | 18 |
| Connection pipe diameter | Liquid (Flare) | mm | 6.35 | 9.52 | 9.52 | 9.52 |
| | Gas (Flare) | | 12.70 | 15.88 | 15.88 | 15.88 |
| Drain hose diameter (I.D./O.D.) | | | 12 / 16 | | 13.8 / 15.8 to 16.7 | |

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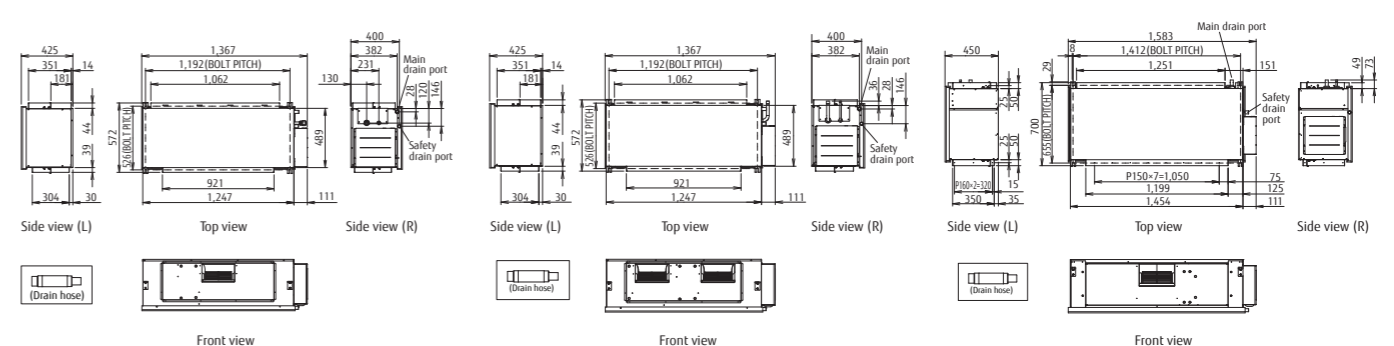Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m. Voltage : 230 [V].

When ASYA18GBCH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/Ø15.88 (Liq/Gas).

## Dimensions (Unit: mm)

Models: ASYA18 / ASYA24
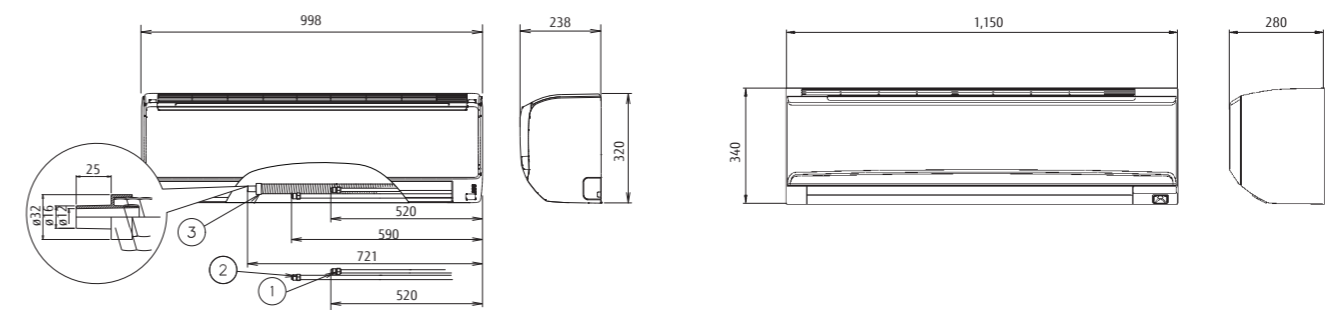
998
238
320
25
ø32
3
2
1
520
590
721
520

Models: ASYA030 / ASYA034

1,150
280
340

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

INDOOR UNITS

# 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 Processing Unit
## DX Kit for airhandling applications

### Outdoor-air Processing Unit Range

| Airflow rate (m³/h) | 1080 | 1680 | 2100 |
|---|---|---|---|
| Model code | 054 | 072 | 096 |
| **Outdoor-air Processing Unit** | ARXH054GTAH | ARXH072GTAH | ARXH096GTAH |

# Outdoor-air Processing Unit   `Production by order`

## Models
ARXH054GTAH
ARXH072GTAH
ARXH096GTAH

ARXH054

ARXH072

ARXH096

## Feature

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

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

*1. Connectable VRF Series: J-IIS

Outdoor-air Processing Unit

VRF system

Duct

Indoor unit

Indoor unit

Fan

Heat
Exchanger

Outdoor-air
Processing
Unit

Fresh Air

Fresh Air

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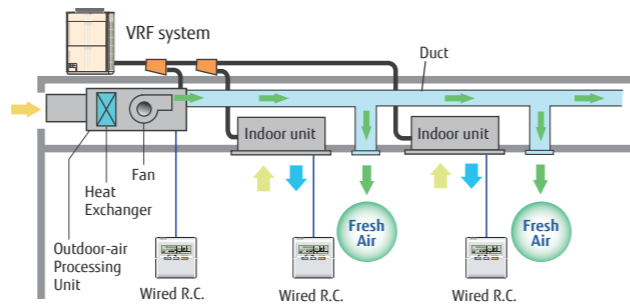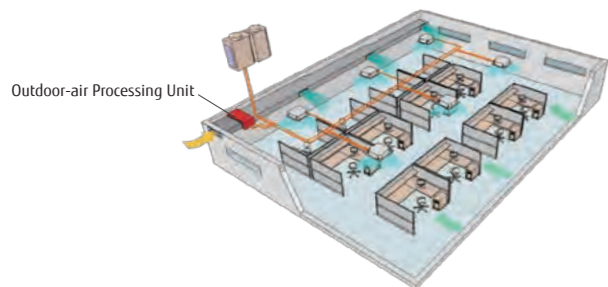
* Make sure the connected capacity is within the range of 50 % to 100 % of the Outdoor-air Processing Unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30 % or less of the Outdoor-air Processing Unit capacity.

### 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
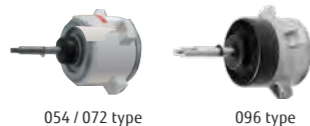
• Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.

• 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)
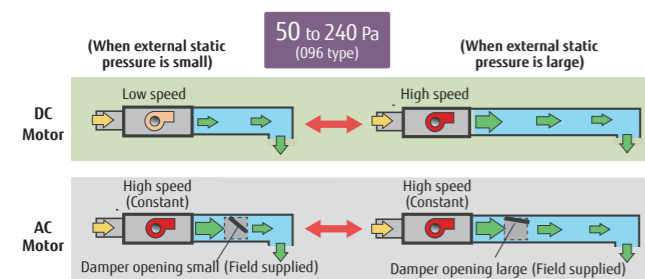
### Top class compact design

• 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)
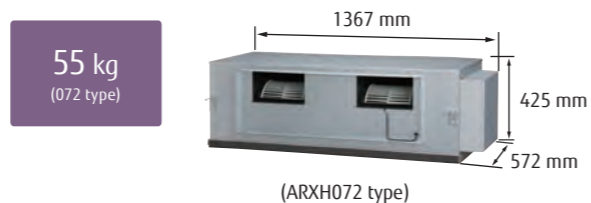
## Various Controller

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

Central Remote Controller

Touch Panel Controller

System Controller System Controller Lite (Software)
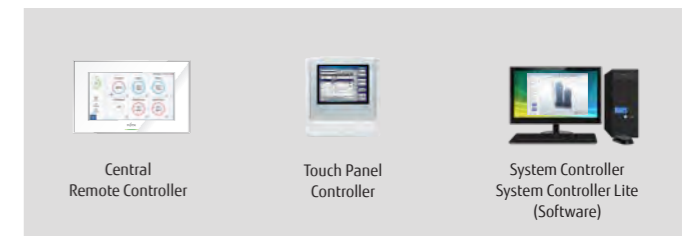
* The temperature setting is discharged air temperature setting.   The air volume is set to a constant speed.

## Specifications

| Rated flow rate | | | 1,000 m$^3$/h | 1,500 m$^3$/h | 2,000 m$^3$/h |
|---|---|---|---|---|---|
| Model name | | | ARXH054GTAH | ARXH072GTAH | ARXH096GTAH |
| Power source | | V/Ø/Hz | 230/1/50 | | |
| 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 | | m$^3$/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 (Flare) | 12.70 (Brazing) | 12.70 (Brazing) |
| | Large | | 19.05 (Flare) | 22.22 (Brazing) | 22.22 (Brazing) |
| 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

VENTILATION

# DX Kit for air handling applications

## Models

**Control unit**
UTY-VDGX

**EEV unit**
UTP-VX30A
UTP-VX60A
UTP-VX90A

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

Control unit
UTY-VDGX

EEV unit
UTP-VX30A

EEV unit
UTP-VX60A

EEV unit
UTP-VX90A
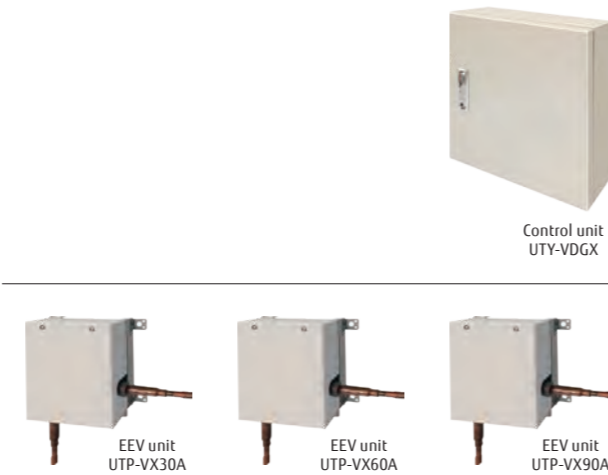
## Feature

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

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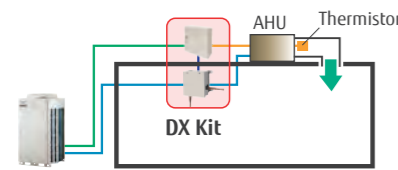
When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

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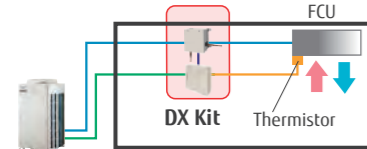
When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.

**Arrangement as part of a VRF system**

Transmission line
Indoor unit
VRF system
Air Handling Unit
Control unit
EEV unit
**DX Kit**
Thermistor
Wired R.C.
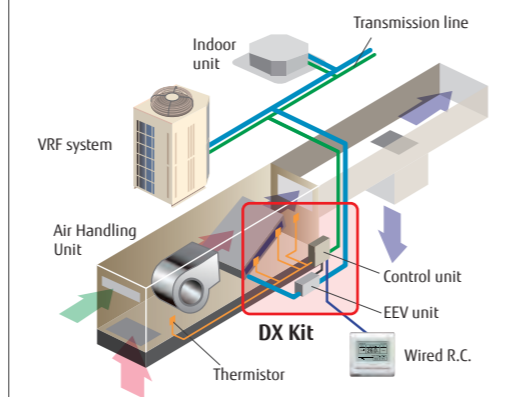
### Supports a wide range of capacity classes

• 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
Wiring
Control unit
AHU or FCU
(40 – 50 kW class)
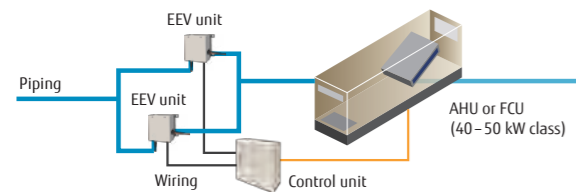
### A variety of controls to match the application

• Central control using our VRF controllers or central management controllers

Transmission line
External I/O
Thermistor
Interface (Option)
**DX Kit**
VRF Controller
Modbus network
AHU or FCU
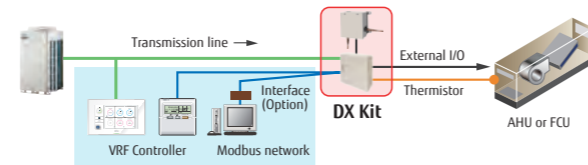
• Central control from external controllers
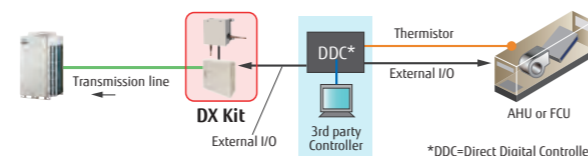
Thermistor
DDC*
External I/O
Transmission line
**DX Kit**
External I/O
3rd party Controller
AHU or FCU
*DDC=Direct Digital Controller

## 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 indoor units : 30 % or less of the outdoor unit capacity
• Max. wiring length from control unit : 10 m
• Max. piping length between EEV unit and indoor unit : 5 m
• Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.

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

**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
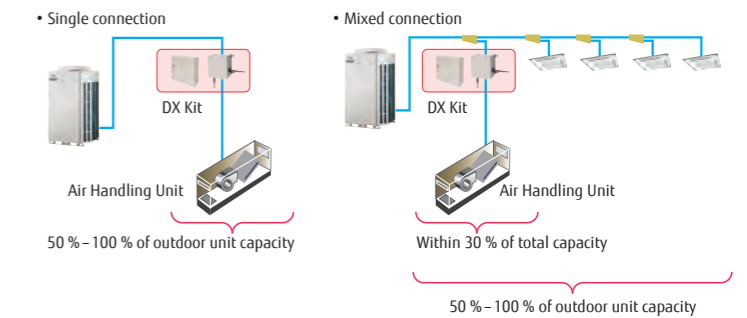
**Piping and wiring length**

Air Handling Unit
EEV unit
Control unit
Max. piping length 5 m
Max. wiring length 10 m
Max. wiring length 15 m
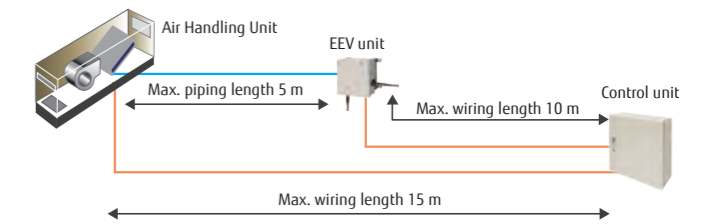
## Specifications

| 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) | 8.0 (7.2-9.0) | 10.0 (9.1-11.1) | 12.5 (11.2-13.2) | 14.0 (13.3-18.0) | 22.4 (18.1-23.7) | 25.0 (23.8-28.0) | 40.0 (28.1-44.7) | 50.4 (44.8-50.4) |
| | Heating | | 6.3 (5.7-6.7) | 7.1 (6.8-8.0) | 9.0 (8.1-10.0) | 11.2 (10.1-12.4) | 14.0 (12.5-15.0) | 16.0 (15.1-20.0) | 25.0 (20.1-26.5) | 28.0 (26.6-31.5) | 45.0 (31.6-49.9) | 56.5 (50.0-56.5) |
| Airflow Rate(Reference value) | 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].

VENTILATION

**User friendly control system
provides individual control to centralized control**

The VRF control system can perform air conditioning control of individual room, centralized control by floor or by building, or centralized energy saving air conditioning control for large buildings.
A variety of air conditioning management schemes are available to match the application, such as linking with the building control system, linking with a single split models, and using various interfaces.

# CONTROL SYSTEMS

BEST CONTROL SOLUTION FOR EACH PROPERTY

CONTROL SYSTEM OVERVIEW

COMPARISON TABLE OF CONTROLLERS

INDIVIDUAL CONTROLLER

CENTRALIZED CONTROLLER

CONVERTER / ADAPTER

# 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 | Touch Panel Controller | System Controller | Network Converter for LonWorks™ | MODBUS™ Converter | KNX™ Convertor |
| | UTY-RNRYZ5,UTY-RLRY UTY-RCRYZ1 | UTY-DCGYZ2 | UTY-DTGYZ1 | UTY-APGXZ1, UTY-ALGXZ1 | UTY-VLGX | UTY-VMGX | UTY-VKGX |
| Automatic control of A/C (Schedule timer, Weekly timer etc.) | ● | ● | ● | ● | | | |
| Limited control for staff (RC Prohibition, Room temp set point limitation etc.) | | ● | ● | ● | ● | ● | ● |
| Group Control | | ● | ● | ● | | | |
| Advanced Energy Saving (Peak cut, indoor unit lead lag operation etc.) | | | | ● | | | |
| Remote Management | | | ● | ● | | | |
| Manage multiple sites | | | ● | ● | | | |
| Monitor energy consumption | | | | ● | | | |
| Control third party products | | | | ● | | | |
| Integrate FGL A/C into BMS | | | | | ● | ● | ● |

## HOTEL

| Type | Individual Control | | | Centralized Control | | | Integrating Control (Interface) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wired Remote Controller | Simple Remote Controller | Wireless Remote Controller | Central Remote Controller | Touch Panel Controller | System Controller | BACnet™ Gateway | Network Converter for LonWorks™ | MODBUS™ Converter | KNX™ Convertor | External Switch Controller |
| | UTY-RNRYZ5,UTY-RLRY UTY-RCRYZ1 | UTY-RSRY, UTY-RHRY | UTY-LNHY | UTY-DCGYZ2 | UTY-DTGYZ1 | UTY-APGXZ1, UTY-ALGXZ1 | UTY-ABGXZ1, UTY-VBGX | UTY-VLGX | UTY-VMGX | UTY-VKGX | UTY-TERX |
| Local control for hotel guest | ● | ● | ● | | | | | | | | |
| Centralized A/C control for common space | | | | ● | ● | ● | ● | ● | ● | ● | |
| Limited control for hotel guests | | | | ● | ● | ● | ● | ● | ● | ● | |
| Remote Management | | | | | ● | ● | | | | | |
| Advanced Energy Saving (Peak cut, indoor unit lead lag operation etc.) | | | | | | ● | ● | | | | |
| Monitor energy consumption | | | | | | ● | | | | | |
| Control third party products | | | | | | ● | | | | | |
| Integrate FGL A/C into BMS | | | | | | | ● | ● | ● | ● | |
| Interlock with window contact | | | | | | | | | | | ● |
| Interlock with key-card | | | | | | | | | | | ● |

## OFFICE

| Type | Individual Control | | | Centralized Control | | | Integrating Control (Interface) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Wired Remote Controller | Simple Remote Controller | Wireless Remote Controller | Central Remote Controller | Touch Panel Controller | System Controller | BACnet™ Gateway | Network Converter for LonWorks™ | MODBUS™ Converter | KNX™ Convertor | External Switch Controller |
| | UTY-RNRYZ5,UTY-RLRY UTY-RCRYZ1 | UTY-RSRY, UTY-RHRY | UTY-LNHY | UTY-DCGYZ2 | UTY-DTGYZ1 | UTY-APGXZ1, UTY-ALGXZ1 | UTY-ABGXZ1, UTY-VBGX | UTY-VLGX | UTY-VMGX | UTY-VKGX | UTY-TERX |
| Local control for office staff | ● | | ● | ● | | | | | | | |
| Automatic control of A/C (Schedule timer, Weekly timer etc.) | ● | | ● | ● | ● | ● | | | | | |
| Centralized A/C control for management | | | | ● | ● | ● | ● | ● | ● | ● | |
| Limited control for office staff (RC Prohibition, Room temp set point limitation etc.) | | | | ● | ● | ● | ● | ● | ● | ● | |
| Advanced Energy Saving (Peak cut, indoor unit lead lag operation etc.) | | | | | | ● | ● | | | | |
| Remote Management | | | | ● | ● | ● | | | | | |
| Energy Charge Apportionment | | | | ● | ● | ● | | | | | |
| Monitor energy consumption | | | | | | ● | | | | | |
| Control third party products | | | | | | ● | | | | | |
| Integrate FGL A/C into BMS | | | | | | | ● | ● | ● | ● | |
| Interlock with door contact | | | | | | | | | | | ● |
| Interlock with human sensor for meeting room | | | ● | | | | | | | | ● |

CONTROL SYSTEMS

# CONTROL SYSTEM OVERVIEW

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

## Converter / Adaptor
### For external device

**BACnet™ Gateway**
UTY-ABGXZ1 ( Software )

**BACnet™ Gateway**
VTY-VBGX ( Hardware )

**Network Converter** For LONWORKS™
UTY-VLGX

**MODBUS™ Converter** For VRF
UTY-VMGX

**MODBUS™ Converter** For Indoor unit
UTY-VMSX

**KNX™ Convertor** For VRF
UTY-VKGX

**KNX™ Convertor** For Indoor unit
UTY-VKSX

**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

**Wireless LAN Adapter**
FJ-RC-WIFI-1 / UTY-TFSXZ2

**External Switch Controller**
UTY-TERX

Card-key
(Field supplied)

Internet device

## Converter / Adaptor
### For system expansion

**Signal Amplifier**
UTY-VSGXZ1

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### Air Conditioning
## Individual Control

**Wired Remote Controller**
(Touch panel)
UTY-RNRYZ5

**Wired Remote Controller**
UTY-RLRY

**Compact
Wired Remote Controller**
UTY-RCRYZ1

**Simple Remote Controller**
UTY-RSRY
UTY-RHRY  Without operation mode

**Wireless Remote Controller**
UTY-LNHY

**IR Receiver Unit**
UTB-YWC
For Duct type

For Duct | For 3D Flow Cassette / Duct

UTY-TRHX
For 3D Flow Cassette / Duct

UTY-LRHYB1
For Cassette type

UTY-LBHXD
For Circular Flow Cassette

For Cassette | For Circular Flow Cassette

---

### Air Conditioning
## Centralised Control

Internet or Public Telephone Line

USB adapter *1
(Field supplied)

Remote / monitoring side

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

Maximum controllable
**1600***
indoor units

* Lite edition is maximum controllable 400 indoor units

Internet or LAN

Remote / monitoring side

**Touch Panel Controller**
UTY-DTGYZ1

Maximum controllable
**400**
indoor units

**Central Remote Controller**
UTY-DCGYZ2

Maximum controllable
**100**
indoor units

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CONTROL SYSTEMS

# COMPARISON TABLE OF CONTROLLERS

| Item | Wired Remote Controller (Touch panel) | Wired Remote Controller | Compact Wired Remote Controller | Simple Remote Controller | Simple Remote Controller*1 | Wireless Remote Controller | Central Remote Controller | Touch Panel Controller | System Controller Lite (Software) | System Controller (Software) |
|---|---|---|---|---|---|---|---|---|---|---|
| Model name | UTY-RNRYZ5 | UTY-RLRY | UTY-RCRYZ1 | UTY-RSRY | UTY-RHRY | UTY-LNHY | UTY-DCGYZ2 | UTY-DTGYZ1 | UTY-ALGXZ1 | UTY-APGXZ1 |
| Max. controllable remote controller groups | 1 | 1 | 1 | 1 | 1 | 1 | 100 | 400 | 400 | 1600 |
| Max. controllable indoor units | 16 | 16 | 1 | 16 | 16 | 16 | 100 | 400 | 400 | 1600 |
| Max. controllable groups | – | – | – | – | – | – | 50 | 400 | 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 | ● | – | ● | – | – | – | ●*3 | ● | – | – |
| 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 | ● | – | ● | ● | ● | – | ●*4 | ●*4 | ●*4 | ●*4 |
| 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 | Year |
| Schedule timer — On/off, Temp, Mode, Times per day | 8 | 4 | – | – | – | – | 20 | 20 | 144 | 144 |
| On/off timer | ● | ● | ●(OFF only) | – | – | ● | – | – | – | – |
| Sleep timer | – | – | – | – | – | ● | – | – | – | – |
| Program timer | – | – | – | – | – | ● | – | – | – | – |
| Auto off timer | ● | ● | – | – | – | – | ● | ● | – | – |
| Day off | ● | ● | – | – | – | – | ● | ● | ● | ● |
| Min. unit of timer setting (Minutes) | 10 • 30 | 30 | – | – | – | 5 | 10 | 10 | 10 | 10 |
| **Control** | | | | | | | | | | |
| Status monitoring system | – | – | – | – | – | – | ● | ● | ● | ● |
| Electricity charge apportionment | – | – | – | – | – | – | – | ○ | ○ | ● |
| Error history | ● | ● | – | – | – | – | ● | ● | ● | ● |
| Emergency stop | – | – | – | – | – | – | ●*2 | ●*2 | – | – |
| Remote management | – | – | – | – | – | – | ● | ● | ○ | ● |
| Energy saving management | – | – | – | – | – | – | – | – | ○ | ○ |
| E-mail notification for malfunction | – | – | – | – | – | – | ● | ● | ● | ● |
| Key lock | ● Child lock | ● Child lock | – | – | – | – | ● Password setting | ● 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 Only individual airflow group reset is mounted.     *4 This function is available only when using wired remote controller.
●: Supported     ○: Optional function     – : Not supported yet

CONTROL SYSTEMS

# Wired Remote Controller (Touch Panel)

## UTY-RNRYZ5

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
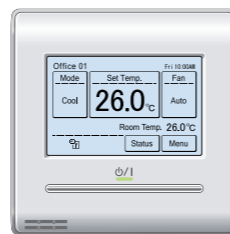
## Functions

### 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.
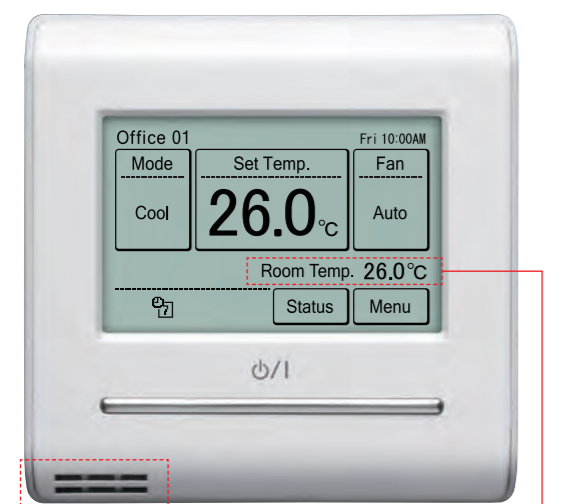
Room temperature sensor

Room temperature display

### 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
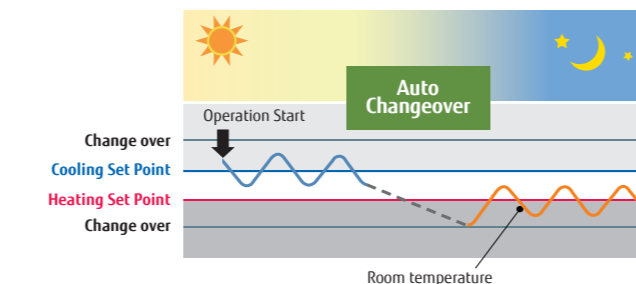
**Auto OFF timer**

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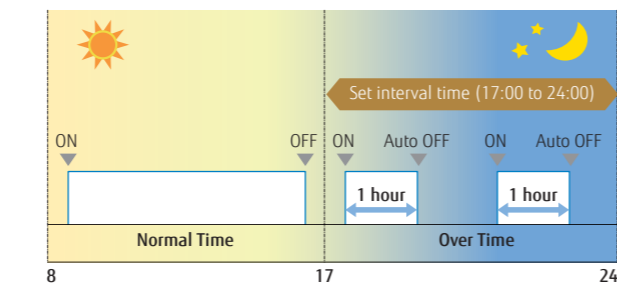
Ex.) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off
Set off time : 1 hour

**2 schedules Weekly Timer**
**Set Temperature Auto Return**
**Set Temperature Upper and Lower Limit Setting**

## Specifications

| Model name | | UTY-RNRYZ5 |
|---|---|---|
| Power Supply | | DC 12V |
| Dimensions (H x W x D) | mm | 120 × 120 × 20.4 |
| Weight | g | 220 |

DC12V is supplied by indoor unit.

130

---

# Wired Remote Controller

## UTY-RLRY

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

## Functions

### High performance and compact size

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

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

### 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.

### Auto-off timer

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

Operation status

Auto OFF          Auto OFF

ON

OFF

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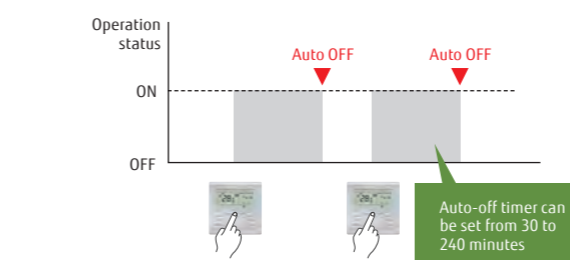
### Weekly timer function

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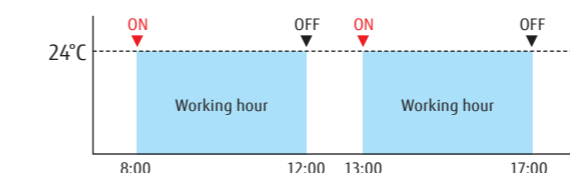
4 types (ON, OFF, ON, OFF) can be set on every day of the week in a week.

### 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
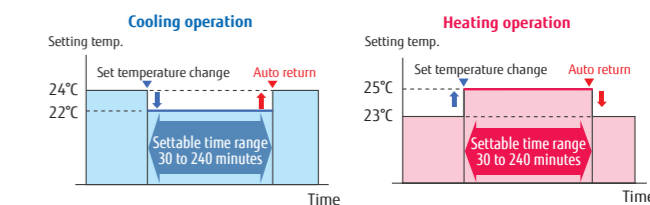
### Set temperature upper and lower limit setting

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

DC12V is supplied by indoor unit.

CONTROL SYSTEMS

131
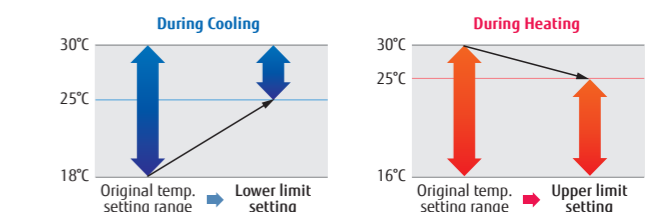
# Compact Wired Remote Controller

Maximum controllable
**1**
indoor units

## UTY-RCRYZ1

• 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
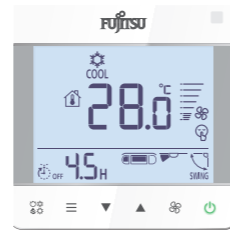
## Functions

### 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)
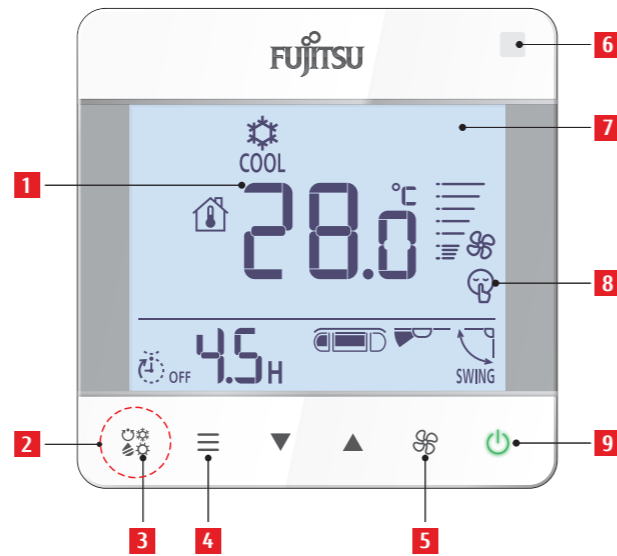
### System overview

**• 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

Non-polar and 2-wire system

Compact Wired Remote Controller
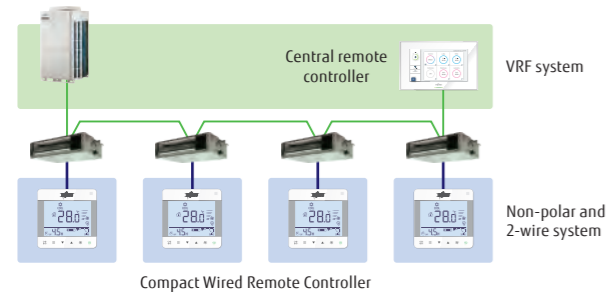
**• RAC (Room air conditioner) connection**

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

RAC system

Non-polar and 2-wire system

Compact Wired Remote Controller
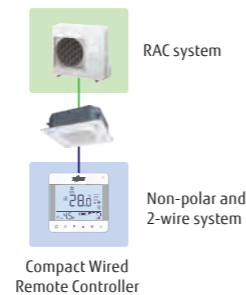
## Specifications

| Model name | | UTY-RCRYZ1 |
|---|---|---|
| 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-RSRY
## UTY-RHRY (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
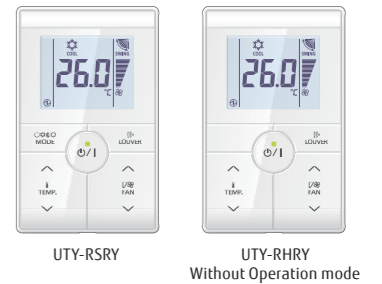
## Functions

### Corresponding to various applications

**• Vertical louver control:**

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

**• Room temperature set point limitation:**

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

During Cooling

30℃
25℃
18℃

During Heating

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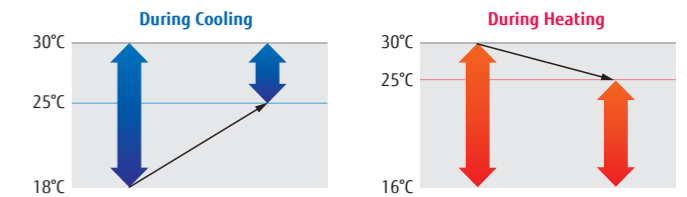
**• Built in room temperature sensor:**

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

Room temperature sensor
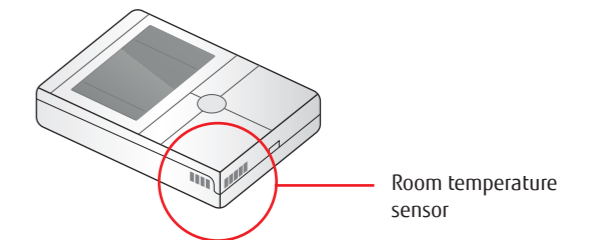
## Specifications

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

**CONTROL SYSTEMS**

# Wireless Remote Controller

| Maximum controllable | Selectable |
|:---:|:---:|
| **16** | **4** |
| indoor units | daily timers |

## UTY-LNHY

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 Maximum 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.)

Confusion

**Code change**

A   B   C   D
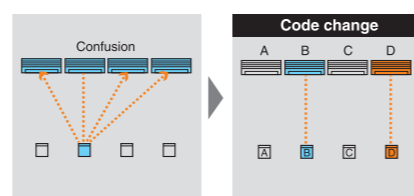
Wide and precise
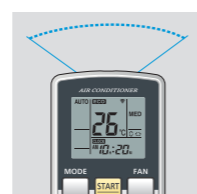
### Address setting

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-LNHY |
|---|---|---|
| Power Supply | | 1.5V (R03 / LR03 / AAA) × 2 |
| Dimensions (H x W x D) | mm | 170 × 56 × 19 |
| Weight | g | 85 |
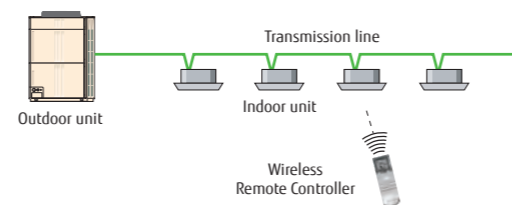
# IR Receiver Unit for Duct

## UTB-YWC, UTY-TRHX

Duct type indoor units can be controlled with Wireless Remote Controller

• 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.
* The wireless remote controller (Model: UTY-LNHY) is necessary separately

## Functions

### Wiring connection

IR Receiver Unit
UTB-YWC
Wireless Remote Controller
Duct type indoor unit

IR Receiver Unit
UTY-TRHX
Wireless Remote Controller
Duct type indoor unit

## Specifications

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

# IR Receiver Unit for Cassette

## UTY-LRHYB1, UTY-LBHXD, UTY-TRHX

Cassette type indoor unit can be controlled
with Wireless Remote Controller

* The wireless remote controller (Model: UTY-LNHY) is necessary separately

UTY-LRHYB1        UTY-LBHXD        UTY-TRHX

## Functions

### Wiring connection

IR Receiver Unit
UTY-LRHYB1
Wireless Remote Controller

IR Receiver Unit
UTY-LBHXD
Wireless Remote Controller

IR Receiver Unit
UTY-TRHX
Wireless Remote Controller

## Specifications

| Model name | | UTY-LRHYB1 | UTY-LBHXD | UTY-TRHX |
|---|---|---|---|---|
| Power Supply | | DC 5V | DC 5V | DC 5V |
| Dimensions (H x W x D) | mm | 193.9 × 193.9 × 31.2 | 193.9 × 193.9 × 31.2 | 145 × 90 × 30 |
| Weight | g | 140 | 140 | 150 |

CONTROL SYSTEMS

# Central Remote Controller

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

## UTY-DCGYZ2

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
- Room temperature display by indoor unit sensor & remote controller sensor
- 50 Remote Controller Groups Display & remote controller group rename
- Supports 12 different languages
  (English, Spanish, German, French, Italian, Russian,Portuguese, Turkish, Polish, Greek, Dutch, Chinese)

---

## Functions

### Easy Management

#### Air conditioning management by detecting room temperatures of each room

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

**Not** connected wired remote controller

: Indoor Unit Sensor

Thermistor

**Connected wired remote controller**

: Remote Controller Sensor / other sensors

Thermistor

#### 50 Remote Controller Groups Display

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

Group Display

**One-tap** to switch

Manage & Monitor by each Groups

50 Remote Controller Groups Display

Manage & Monitor by 50 Remote Controller Groups

#### Remote Controller Groups Rename

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

The remote controller group name can be changed.

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

Monitoring screen

Individual setting

**Added individual wind direction control**

Individual wind direction control has been added.
Circular Flow cassette / 3D Flow cassette

Circular flow cassette

**Human Sensor Compatible**

Human sensor setting

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

## Remote Management

### Remote monitoring / Remote operation

New central remote controller can control your tenant's air conditioner anytime and anywhere.
When the central remote controller manages the indoor units of some tenants, air conditioning of each tenants can be managed separately online.

Increased the Number of Accounts

Maximum **30** accounts

Administrator (Building owner)  +  Online users (Tenant owner)

### Trouble support function

**Display error details**
Display descriptive explanation when an error occurs

All indoor unit groups display

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

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

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

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

### Specifications

| Model name | | UTY-DCGYZ2 |
|---|---|---|
| Power supply | | 100-240 V  50 / 60 Hz |
| Dimensions (H x W x D) | mm | 134.6 × 216.2 × 37.9 |
| Weight | g | 800 |

CONTROL SYSTEMS

# Touch Panel Controller

| Maximum controllable | Maximum controllable | Maximum controllable |
|---|---|---|
| **400** indoor units | **100** outdoor units | **400** groups |

## UTY-DTGYZ1

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

## Functions

### Easy operation

• Wide range of simple-to-understand icons
• Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon.
• Back colour identifies current control operation: blue for monitoring; green for operational control.
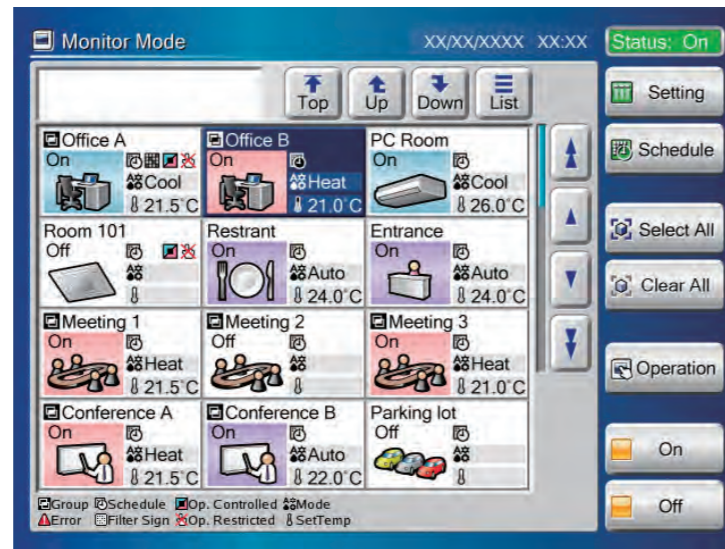
### Easy maintenance

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

### Easy installation

• The touch panel controller is easily mounted to the wall
• The flat back surface allows the controller to be installed wherever required
• No additional components are required for installation

### Up to 400 indoor units can be controlled

Group A          Group B

It allows multiple indoor unit grouping ability

Emergency stop control
Air conditioner can be turned off through the external input control

Emergency stop function
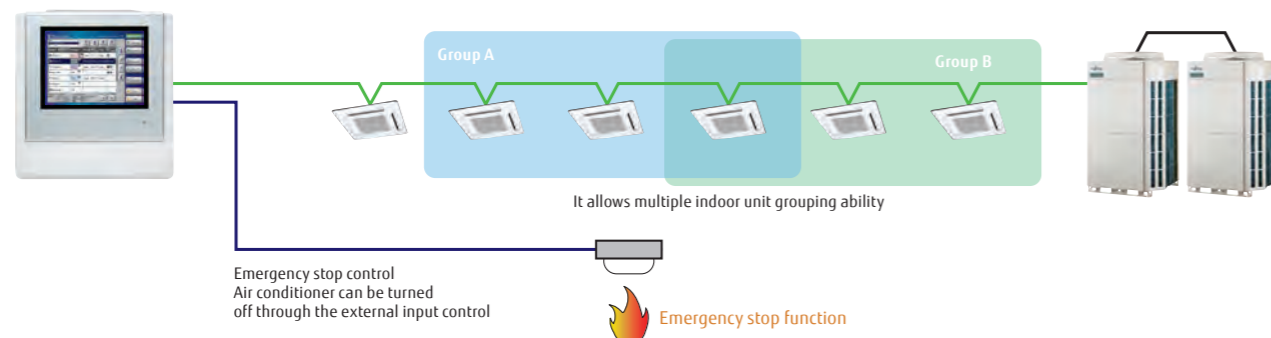
## Control and monitoring

• Control and monitor Fujitsu air conditioners via LAN or Internet
• Allow the user or tenant to manage only assigned equipment by their PC or tablet from anywhere
• Error messages can be notified automatically by email upon an error occurrence to enable the issue to be handled promptly

Operation status monitoring

Tablet

Error notification by email

LAN or Internet

PC

Operation mode setting

VRF network system

Not only operations but also detailed settings such as schedule or group settings can be operated from remote locations.
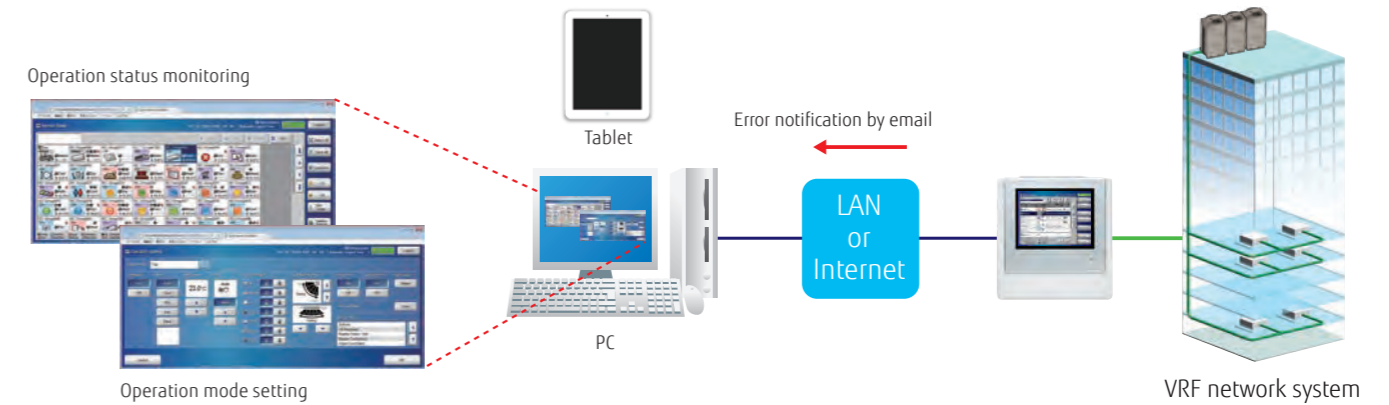
Individual control          Flexible grouping          Schedule control          Indoor units operation monitoring

### Smart phone

| Model name | Browser |
|---|---|
| Nexus 6P (Android 7.1.1) | Google Chrome 5.5 |
| iPhone 7 (iOS 10.1) | Safari 10 |

### Tablet

| Model name | Browser |
|---|---|
| iPad Pro 9.7inch (iOS 10.2.1) | Safari 10 |

## Flexible access permission with individual user levels

The administrator can register multiple users to permit which indoor unit(s) and which functions can be accessed.

🔒 ON / OFF prohibition

Operation ON

Operation ON

**Monitoring from website**

Administrator

Staff / employee
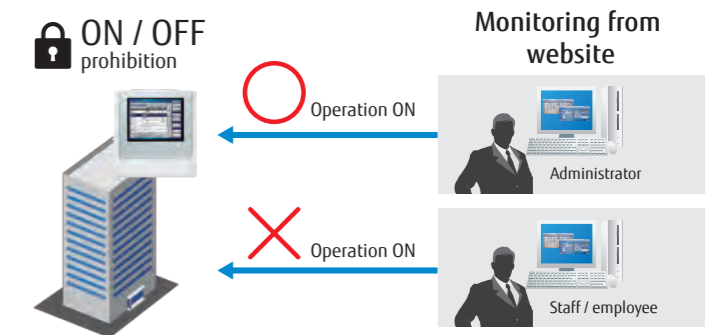
## Additional language functionality

Available in 7 different languages- English, Chinese, French, German, Spanish, Russian and Polish as standard.
Additional languages can be integrated on a remote device by creating a language database.
Additional languages are displayed only on the remote device.
The touch panel controller cannot be configured to display these additional languages.

**Monitoring from website**

Write

7 Languages

Language data

7 Languages + Other languages

CONTROL SYSTEMS
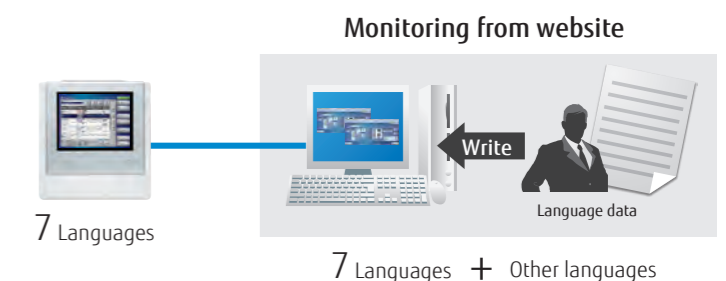
## Functions

### Electricity charge apportionment

• Electricity charge apportionment can be utilised to easily attribute power usage to each tenant based on their usage

• Apportionment charge / bill calculation
• Tenant (block) setting
• Common facilities apportionment setting
• Rated power consumption allotment setting
• Individual calculation for both cooling and heating
• Electricity meter supported

VRF network system

Electricity meter

Electric power company

Electricity charges

Block (tenant) A

Signal line*

Block (tenant) B

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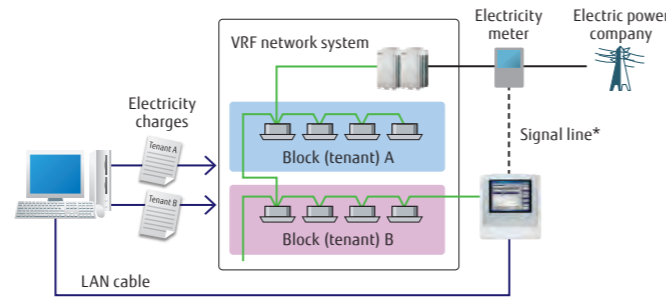
* Electricity meter (1 unit) can be connected to external input connector of the TPC unit. In this case, electricity meter cannot be connected to outdoor unit simultaneously.

### Automatic summer time setting

**Function overview**

1) This function enables a schedule to be set within the system to adjust the timer to summer time at the appropriate time to ensure the time matches the time zone.

**Automatic clock adjustment**

2) The time setting of each controller can be set from the one location.

10:00

26.0

26.0

26.0
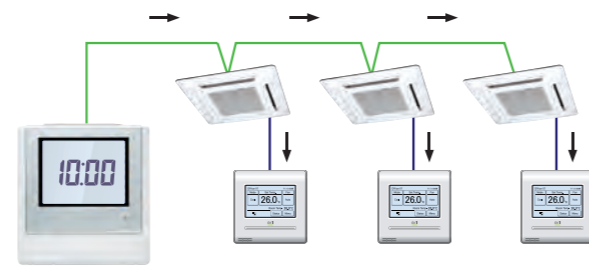
### Outdoor low noise operation

Users can choose from 4 low noise levels, depending on the installation environment.
The operation time can be set using the timer.
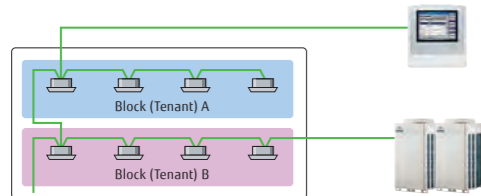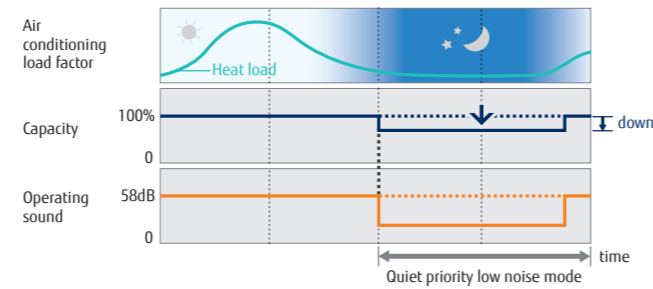
Block (Tenant) A

Block (Tenant) B

**Quiet priority setting**

Air conditioning load factor

Heat load

Capacity

100%

0

down

Operating sound

58dB

0

time

Quiet priority low noise mode

### 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℃

Operation Start

Auto changeover

Changeover

Cooling set point

Heating set point

Changeover

Room temperature

---
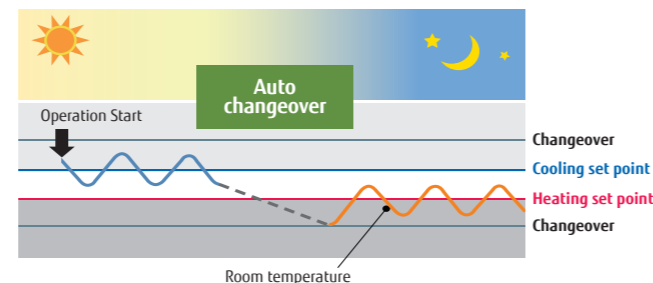
## FUNCTIONS SUMMARY

| | UTY-DTGYZ1 | Monitoring side |
|---|---|---|
| **Air conditioning control function** | | |
| On / Off | ● | ● |
| Operation mode setting | ● | ● |
| Fan speed setting | ● | ● |
| Room temp. setting | ● | ● |
| Room temp. set point limitation | ● | ● |
| Test operation | ● | ● |
| Up / down air direction flap setting | ● | ● |
| Right / left air direction flap setting | ● | ● |
| Individual louvre control | ●*1 | ● |
| Group setting | ● | ● |
| RC prohibition | ● | ● |
| Anti freeze setting | ● | ● |
| Set temp. auto return | – | ● |
| Various energy saving controls | – | ● |
| Economy mode setting | ● | ● |
| Human sensor control | – | ● |
| Custom Auto setting | ● | ● |
| **Display** | | |
| Error | ● | ● |
| Defrosting | ● | ● |
| Current time | ● | ● |
| Day of week | ● | ● |
| R.C. prohibition | ● | ● |
| Cooling / heating priority | ● | ● |
| Address display | ● | ● |
| Room temp | ●*3 | ●*3 |
| Multi language | ● | ● |
| Summer time | ● | ● |
| Time zone setting | ● | ● |
| Name registration | ● | ● |
| Backlight | ● | ● |
| Language setting | 7 | 7+other |

| | | UTY-DTGYZ1 | Monitoring side |
|---|---|---|---|
| **Timer** | | | |
| Schedule timer | Period | Year | Year |
| | On / Off, temp, mode, times per day | 20 | 20 |
| On / Off timer | | – | – |
| Sleep timer | | – | – |
| Program timer | | – | – |
| Auto off timer | | – | ● |
| Day off | | ● | ● |
| Min. unit of timer setting (minutes) | | 10 | 10 |
| **Control** | | | |
| Status monitoring system | | ● | ● |
| Electricity charge apportionment | | ○ | ○ |
| Error history | | ● | ● |
| Emergency stop | | ●*2 | ●*2 |
| Remote management | | – | ● |
| Energy saving management | | – | – |
| Email notification for malfunction | | – | ● |
| Key lock | | ● Password setting | – |
| Low noise mode | | ● | ● |

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

*1 Only setting cancellation can be operated.
*2 This function is available only through external input control.
*3 This function is available only when using wired remote controller.

### Specifications

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

CONTROL SYSTEMS

# 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.

**Site view**

Click & Operate any specified unit(s)!

Custom  Auto operation display

Set Temp. [Custom Auto] (°C)

| | Cool | Heat |
|---|---|---|
| | 27.0 | 23.0 |
| | 25.5 | 23.0 |

Batched control of freely defined groups

Batched control of freely selected units

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

Click & Operate the whole floor !

Batched control of freely selected units

**Building view**

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

**Floor view**

Click & Operate the unit !

---

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

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.

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

Supported Modbus communication (Field supply)

Remote I/O

System Controller (System Controller Lite)

Electricity meter

VRF Network

Signal Line

Electric power company

Lighting facilities

Energy recovery ventilator system

Outdoor-air processing unit system

Supply & Exhaust fan
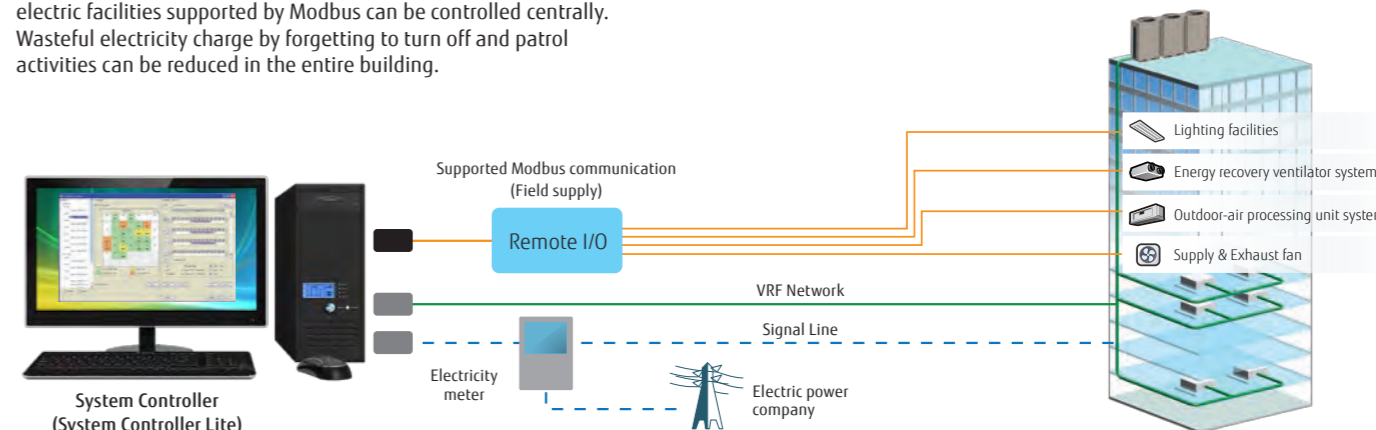
## Diverse operation management & Data management

### 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.
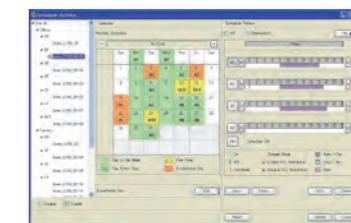
### Diverse control of indoor unit

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

### 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.

### Remote controller prohibition

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

### Data base import/export

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

### Automatic clock adjustment

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

### Operating & control record

Displays the history of operation status and control.

## Electricity charge apportionment

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

Standard for System Controller
Option for System Controller Lite UTY-PLGXA1

**System Configuration Example**

Electric power company

Electricity charges (air conditioning)

Signal transmission line

Power distribution board

System Controller

| 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

Outdoor unit

3Ø, 4 wire 400V, 50Hz

1Ø, 2wire 230V, 50Hz

CONTROL SYSTEMS

## Remote management

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

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

### Remote central control
1 VRF Controller can be monitored from any number of VRF Explorers (Up to 5 connections simultaneously).
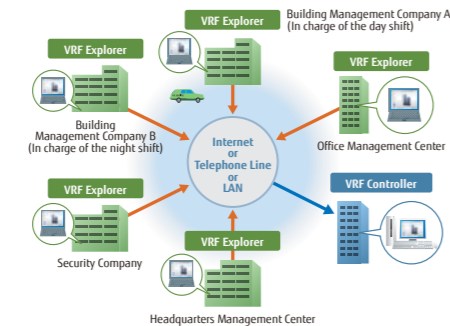
1 VRF Explorer can control or monitor up to 10 sites.
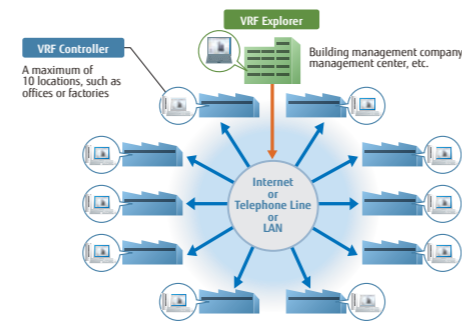
## Web Operation

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)
Wireless LAN
LAN (Intranet)
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.

## Energy saving management

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

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

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.

Energy Saving Management Main Screen

### Indoor unit lead lag 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.

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

### Outdoor unit capacity limit

Outdoor unit capacity limit 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 upper limit
Power consumption
Time

Outdoor unit capacity control screen

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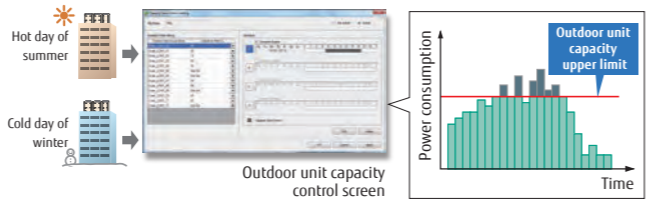
## FUNCTIONS SUMMARY

| Function | Type | System controller | | System controller lite | | | | |
|---|---|---|---|---|---|---|---|---|
| | | UTY-APGXZ1 | UTY-PEGXZ1 (Option) | UTY-ALGXZ1 | UTY-PLGXR2 (Option) | UTY-PLGXA2 (Option) | UTY-PLGXE2 (Option) | UTY-PLGXX2 (Option) |
| 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 view | ● | — | ● | — | — | — | — |
| | 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 | ● | — | ● | — | — | — | — |
| | Exception 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 | ● | — | ● | — | — | — | — |
| Remote management | Web Operation | ● | — | ● | — | — | — | — |
| | Remote monitoring | ● | — | — | ● | — | — | — |
| | Remote operation control | ● | — | — | ● | — | — | — |
| | Remote function setting | ● | — | — | ● | — | — | — |
| Electricity charge apportionment | Apportionment charge/bill calculation | ● | — | — | — | ● | — | — |
| | Tenant (block) setting | ● | — | — | — | ● | — | — |
| | Common facilities apportionment setting | ● | — | — | — | ● | — | — |
| | Rated power consumption allotment setting | ● | — | — | — | ● | — | — |
| | Individual calculation at cooling and heating | — | ●* | — | — | ● | — | — |
| | Electricity meter supported | — | ● | — | — | ● | — | — |
| Energy saving management | Indoor unit lead lag | — | ● | — | — | — | ● | — |
| | Peak cut control | — | ● | — | — | — | ● | — |
| | Outdoor unit capacity limit | — | ● | — | — | — | ● | — |
| | 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<br>• Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)<br>• Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)<br>[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)<br>•USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller)<br>- Maximum of 2 USB ports are required for WHITE-USB-KEY/WibuKey connection<br>- Maximum of 4 USB ports are required for Echelon™ U10 USB Network Interface<br>* 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)<br>•USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller)<br>- Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connection<br>- 1 USB port is required for Echelon™ U10 USB Network Interface<br>* 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 | Energy manager (Option) | System Controller Lite | Remote access | Electricity charge apportionment | Energy saving | Central Control |
| | | | | | | (Option) | |
| 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.

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**WHITE-USB-KEY**
**(Software Protection Key)**

## Functions

## Installation example

**VRF network system 1**

Indoor unit   Outdoor unit

USB adaptor*1 (Field supplied)

**VRF network system 2**

Indoor unit   Outdoor unit

USB adaptor (Field supplied)

USB adaptor (Field supplied)

**Max. 4 VRF network systems**

USB adaptor (Field supplied)

**BACnet™**

**BACnet™ Operator Workstation (B-OWS)**

Lighting facilities

Security system

Automatic fire alarm interface

Ventilation system

**BACnet™ Gateway**
(UTY-ABGXZ1)

**WHITE-USB-KEY**
**Software Protection Key**

— = 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<br>• Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)<br>• Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)<br>[Supported languages]<br>  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])<br>• 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)<br>• USB ports (Maximum of 5 ports)<br>- 1 USB port is required for WHITE-USB-KEY/WibuKey connection<br>- Maximum of 4 USB ports are required for Echelon™ U10 USB Network Interface<br>* 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. |

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# 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.

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## 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
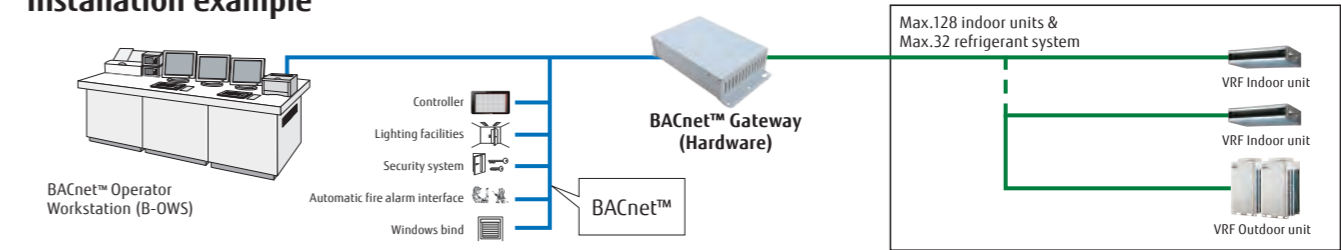
## Specifications

| 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 Converter 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 Converter for LONWORKS™

## Functions

## Installation example

**General-purpose building control computer (LONWORKS™ device)**

Controller

Lighting facilities

Security system

Automatic fire alarm interface

Windows bind

**Network Converter for LONWORKS™**

**LONWORKS™ Network**

Max.128 indoor units & Max.100 outdoor units

VRF Indoor unit

VRF Indoor unit

VRF Outdoor unit
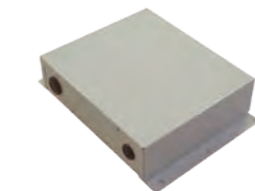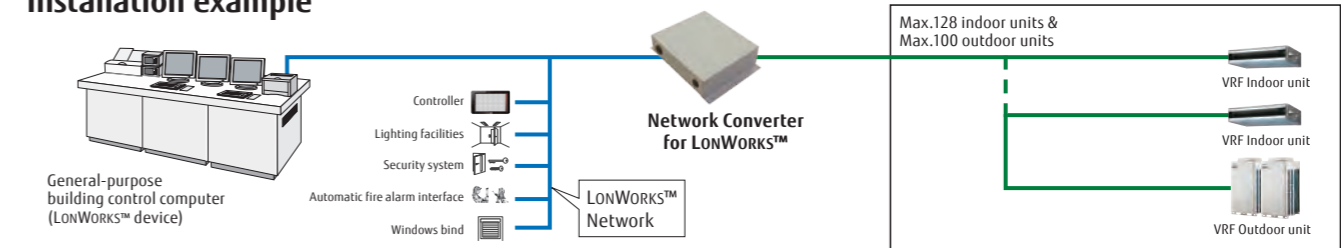
## Specifications

| 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.) |

CONTROL SYSTEMS

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# MODBUS™ Converter (for VRF)

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

## UTY-VMGX

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

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

### Functions

Modbus Network

VRF System (Lon Network)

Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

BMS/Central Controller

MODBUS Converter for VRF

VRF Indoor unit    VRF Indoor unit

VRF Outdoor unit

\* BMS : Bulding Management System
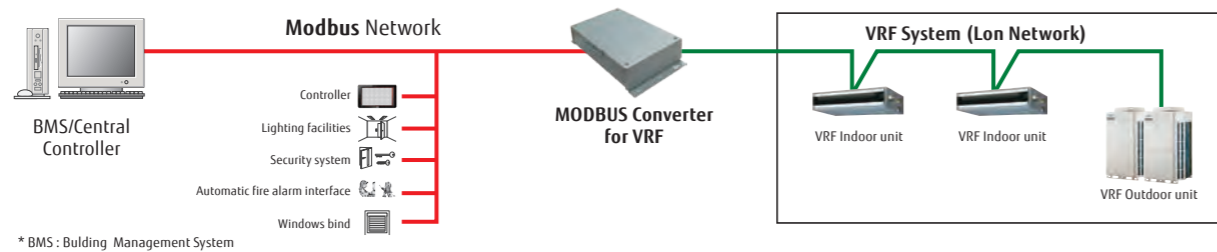
### Specifications

| 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 |

# 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
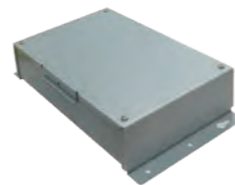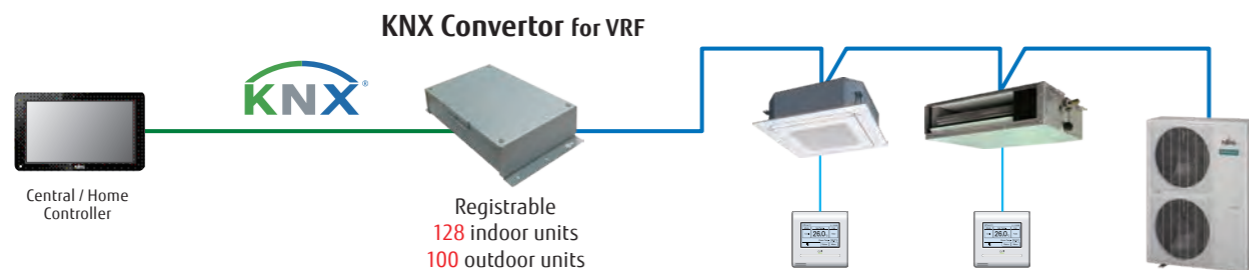
### Specifications

| 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 |

# MODBUS™ Converter (for Indoor unit)

| Maximum controllable |
|---|
| **1** Single indoor unit |

## UTY-VMSX

The MODOBUS Converter 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 Converter must be connected one by one in the indoor unit.
• The MODBUS Controller permits central monitoring and control of air conditioners from BMS/Central/Home Controller.

### Functions

MODBUS Network

BMS/Central/ Home Controller

Lighting facilities
Security system
Automatic fire alarm interface
Windows bind

MODBUS Converter
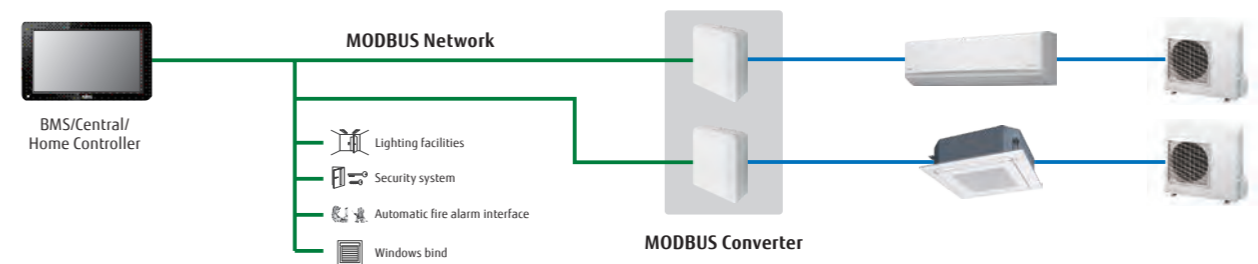
### Specifications

| Model name | | UTY-VMSX |
|---|---|---|
| Power Supply | | DC12V |
| Input Power | W | Max. 1.2 |
| Dimensions (H x W x D) | mm | 140 × 117 × 43 |
| Weight | g | 200 |

| Temperature | Operating / Packaged | °C | 0~46 / -10~60 |
|---|---|---|---|
| Humidity | Operating / Packaged | % | 0~95 / 0~95 |
| Maximum Connectable indoor unit number per 1 MODBUS Converter | | | 1 |

# KNX™ Convertor (for Indoor unit)

| Maximum controllable |
|---|
| **1** Single indoor unit |

## UTY-VKSX

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 indoor unit.
• Compact and light weight design

### Functions

Single split indoor unit

Central / Home Controller

KNX Convertor for indoor unit
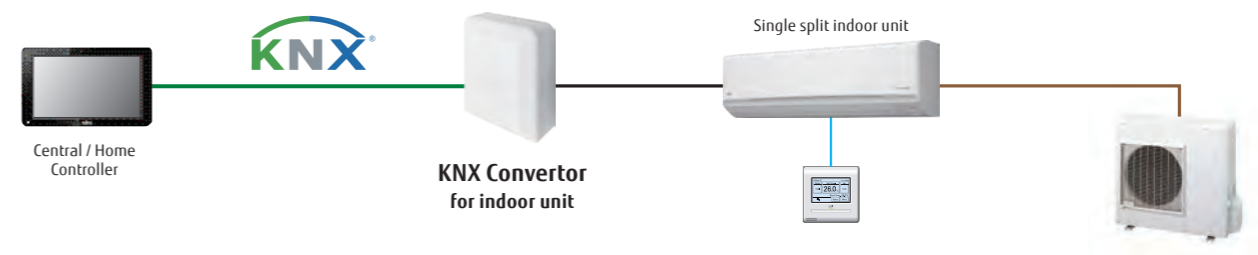
### Specifications

| Model name | | UTY-VKSX |
|---|---|---|
| Power Supply | | (DC12V) |
| Input power | W | 0.6 |
| Dimensions (H x W x D) | mm | 140 × 117 × 43 |
| Weight | g | 250 |

CONTROL SYSTEMS

# Wireless LAN Adapter

Maximum controllable
**1**
Single indoor unit

## UTY-TFSXZ2

• It is the most advanced solution to remotely manage an Air Conditioning system using all sort of mobile devices such as Smartphones, and tablets.
• No separate external power supply required
• Can be used for single indoor units and multi-split system indoor units
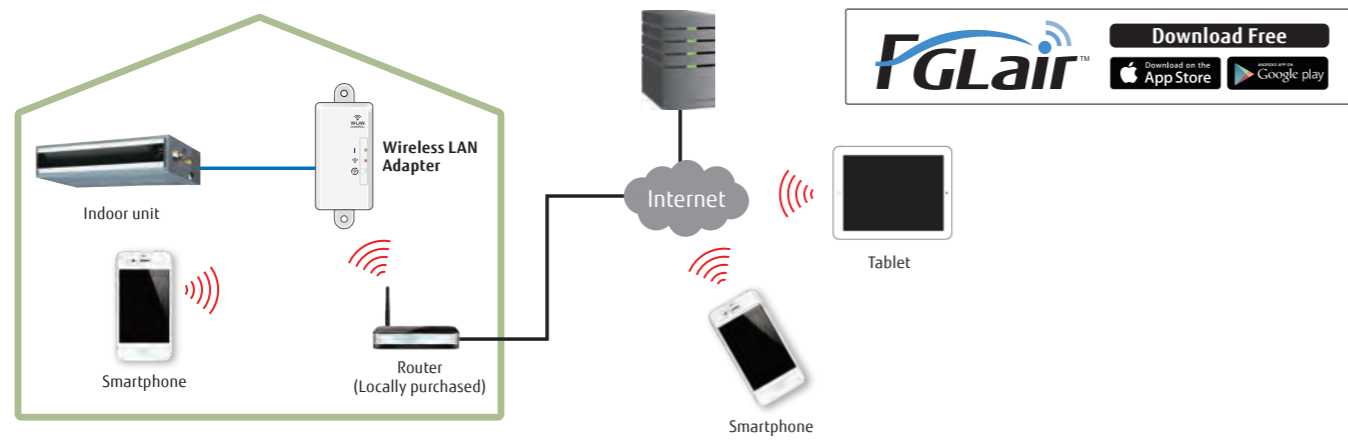
### Functions

Wireless LAN Adapter
Indoor unit
Smartphone
Router (Locally purchased)
Internet
Tablet
Smartphone

**Download Free**
FGLair™
App Store
Google play

### Basic control

• Turning the units on and off
• Mode control (Heat, Cool, Dry, Auto, Fan)
• Fan speed setting
• Louver position (Airflow direction setting)
• Timer operation setting (Weekly timer)
• Economy mode setting

**Multi system**

Indoor unit
Indoor unit
Indoor unit
Router (Locally purchased)
Internet
Outdoor unit
Smartphone

### Error display & E-mail notification

• Alerts e-mail notification
• Air conditioning malfunction display
• It enables rapid service response when error occurs.

Indoor unit
Internet
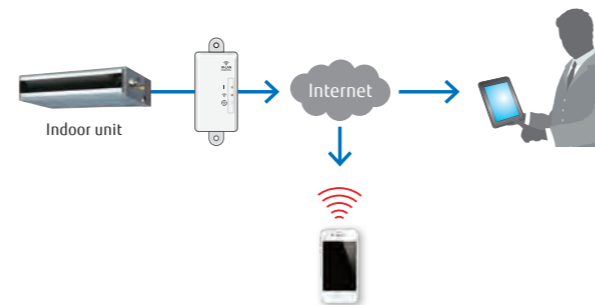
### Multiple air conditioning management

• Multiple air conditioning management at difference locations.
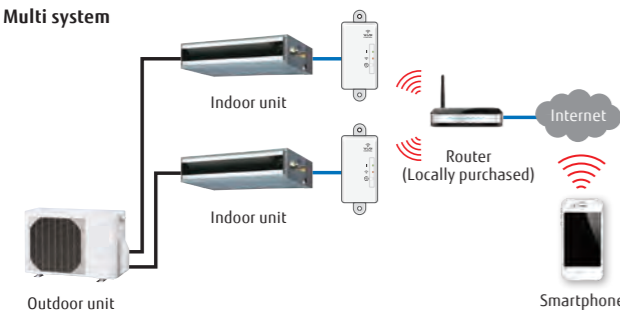
### Specifications

| Model name | | UTY-TFSXZ2 |
|---|---|---|
| Dimensions (H x W x D) | mm | 71 × 38 × 15 |
| Weight | g | 35 |

# Wireless LAN Adapter IntesisHome®

Maximum controllable
**1**
Single indoor unit

## FJ-RC-WIFI-1

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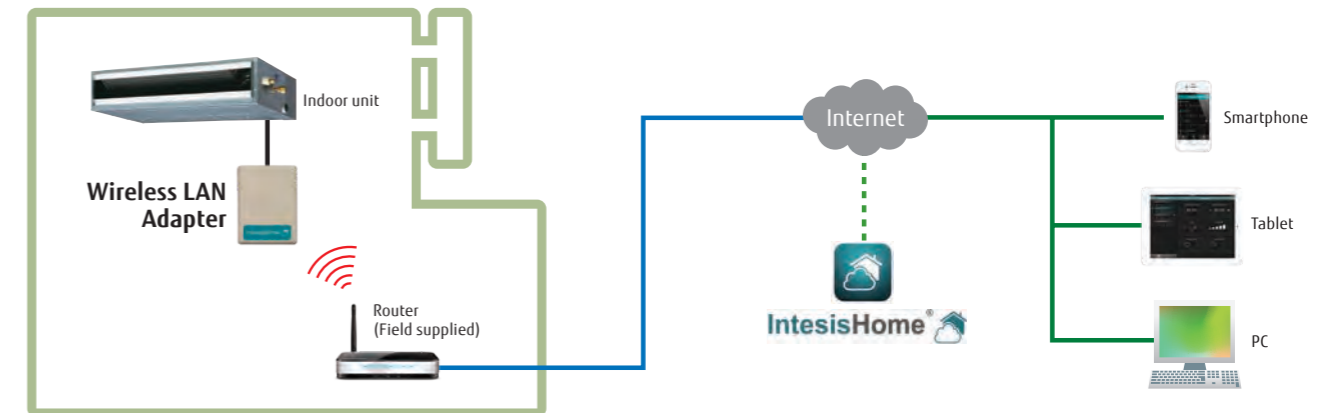
### Functions

Indoor unit
Wireless LAN Adapter
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

(Application screen image)

### 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 |

CONTROL SYSTEMS

# 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.
• 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.

**Cooling/Dry** +2°C *Max. 30℃

Set temp.

**Heating**

Set temp. −4°C *Max. 16℃

SAVE！ AUTO RESTART

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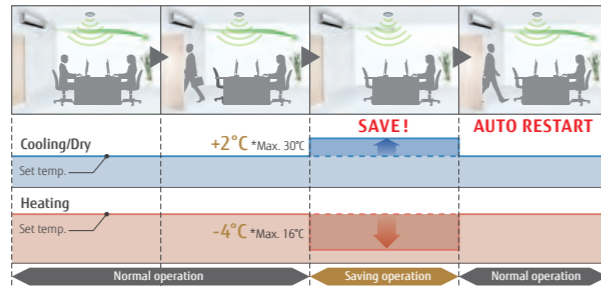
Human sensor equipment needs to be purchased locally. The above example indicated that a signal is sent to this External Switch Controller if human sensor does not detect for 20 minutes. Human sensor is not mounted on the External Switch Controller.

## 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

A

B

C

D

Signal Amplifier

AB+BD+BC < 500m
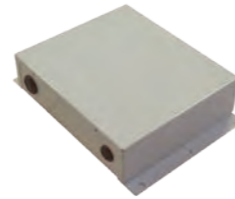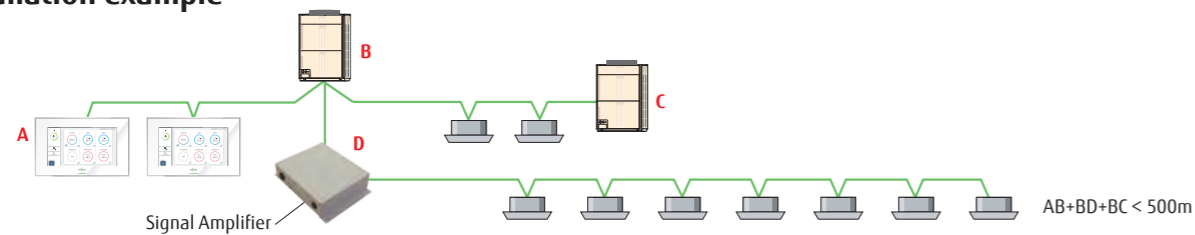
## Specifications

| 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 |

CONTROL SYSTEMS

# OPTION

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

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

External Power Supply Unit

Auto Louver Grille Kit

CONTROL SYSTEM LIST

OPTIONAL PARTS LIST

OPTIONAL PARTS

FUNCTION LIST

SEPARATION TUBE etc.

OPTION

# External Power Supply Unit

**Models**
**UTZ-GXXC**

The External power supply unit protects the increment in the system even if the power supply for some of the indoor units is shut down.

Connects to the External power supply unit to supply power to the indoor unit from the auxiliary power supply. This allows for continuous operation without system errors.
Built-in relays reduce installation time and cost.
The UTY-GXXC has a built-in relay, which reduces installation time and cost.

## Feature

### High reliability

- A: Interruption of the main power supply is detected by the power cut-off detection part.
- B: Supplies power for driving the expansion valve of the indoor unit. (12 V or 5 V DC)
- C: Gives notification of the power supply from the External power supply unit.
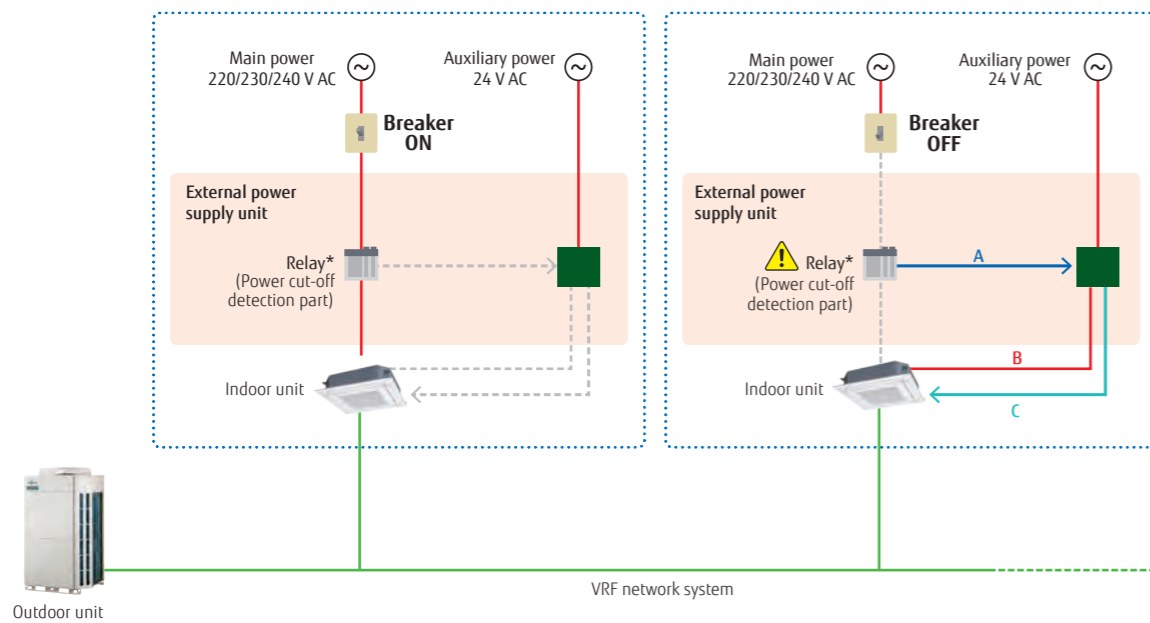


| Note | • When changing the power supply voltage to 24 V AC, use a power transformer with an insulated structure that complies with the regulations* of the installation region.<br>• A powered-off indoor unit driven by the External power supply unit is treated in the same way as an operation-off unit in the electricity charge appointment function. If standby power is generated, the result of the electricity charge appointment may not be zero.<br>* UL Class II or IEC 61558 Class III, for example. |
|---|---|

### Specifications

| Model name | UTZ-GXXC |
|---|---|
| Power Supply | | 24 V AC 50/60 Hz |
| Dimensions (H × W × D) | mm | 97 × 200 × 178 |
| Weight | g | 800 |

---

# Auto Louver Grille Kit

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

Closed louver    Opened louver
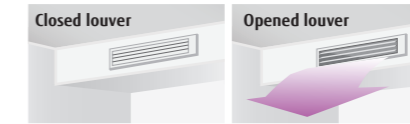


## Feature

### 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.
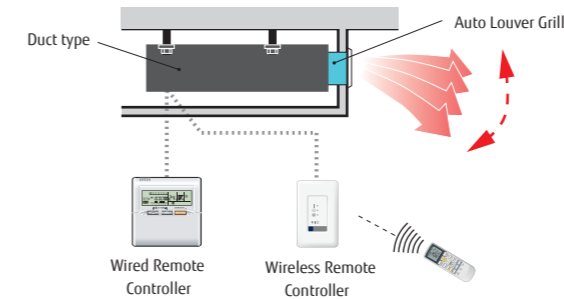


## Dimensions
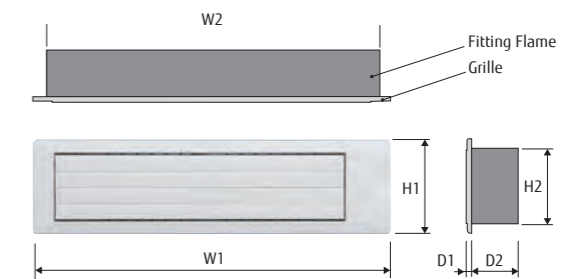


Unit: mm

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

## Specifications

| Model name | | | UTD-GXTA-W | UTD-GXTB-W | UTD-GXTC-W |
|---|---|---|---|---|---|
| Applicable Indoor Unit | | | ARXD007/009/012/014GLEH<br>ARXD07/09/12/14GATH<br>ARXK007/009/012/014GLGH<br>ARXK007/009/012/014GLFH | ARXD018GLEH<br>ARXD18GATH<br>ARXK018GLGH<br>ARXK018GLFH | ARXD024GLEH<br>ARXD24GATH<br>ARXK024GLGH<br>ARXK024GLFH |
| 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 | | |

OPTION

# CONTROL SYSTEM LIST

## Controllers / Interface

| Type | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Indoor unit** | | | | | | | | | | | | **Indoor unit** | | | | | |
| | Cassette | | | | | | Duct | | Duct | | | | Floor | Ceiling / Floor | Ceiling | Wall Mounted | | |
| | 1-way Flow | 3D Flow | 4-way Flow Compact Grid type/Standard type | 4-way Flow Slim type/Large type | Circular Flow Slim type | Circular Flow Large type | Mini (With drain pump) | Low Static Pressure | Slim (With drain pump) | Medium Static Pressure | High Static Pressure | | | | | | | |
| | AUXV 007/009/012/014/018/024 GLEH | AUXS 018/024GLEH | AUXB 007/009/012/014/018/024 GLEH, AUXB 09/12/14/18/24 GATH | AUXD 18/24GALH, AUXA 18/24/30/34/36/45/54 GALH | AUXM 018/024/030 GLEH, AUXM 018/024GTAH | AUXK 018/024/030/034/036/045/054 GLEH, AUXK 030/036/045/054 GTAH | ARXK 007/009/012/014/018/024 GLGH | ARXB 07/09/12/14/18/24/30/36/45 GALH | ARXD 007/009/012/014/018/024 GLEH, ARXD 07/09/12/14/18/24 GATH | ARXA 024/030/036/045 GLEH, ARXA 24/30/36/45 GBTH | ARXC 036/045/060 GTEH | ARXC 072/090/096 GTEH | AGYA 007/009/012/014 GCGH | ABYA 012/014/018/024 GTEH | ABYA 030/036/045/054 GTEH | ASYA 07/09/12/14 GATH | ASYA 007/009 012/014 GCGH | ASYA 18/24GBCH, ASYA 18/24GACH | ASYA 007/009/030/034 GTEH |

### Controllers

| | | Indoor unit (left) | Indoor unit (right) |
|---|---|---|---|
| Wired Remote Controller | | UTY-RNRYZ5 | UTY-RNRYZ5 |
| | | UTY-RLRY | UTY-RLRY |
| | | UTY-RCRYZ1 | UTY-RCRYZ1 |
| Simple Remote Controller | | UTY-RSRY, UTY-RHRY | UTY-RSRY, UTY-RHRY |
| Wireless Remote Controller | | UTY-LNHY | UTY-LNHY |
| Central Remote Controller | | UTY-DCGYZ2 | UTY-DCGYZ2 |
| Touch Panel Controller | | UTY-DTGYZ1 | UTY-DTGYZ1 |
| System Controller, System Controller Lite | | UTY-APGXZ1, UTY-ALGXZ1 | UTY-APGXZ1, UTY-ALGXZ1 |

### Interface

| | Detail |
|---|---|
| BACnet Gateway | UTY-ABGXZ1, UTY-VBGX (both sides) |
| Network Converter for LonWorks | UTY-VLGX (both sides) |
| MODBUS Converter for Indoor unit | UTY-VMSX; UTY-VMSX (GLEH); UTY-VMSX; UTY-VMSX (GLEH); UTY-VMSX; UTY-VMSX (GTEH); UTY-VMSX; UTY-VMSX |
| MODBUS Converter for VRF | UTY-VMGX (both sides) |
| KNX Convertor for Indoor unit | UTY-VKSX; UTY-VKSX (GLEH); UTY-VKSX; UTY-VKSX (GLEH); UTY-VKSX; UTY-VKSX (GTEH); UTY-VKSX; UTY-VKSX |
| KNX Convertor for VRF | UTY-VKGX (both sides) |
| Wireless LAN Adapter | UTY-TFSXZ2; UTY-TFSXZ2 (GLEH); UTY-TFSXZ2; UTY-TFSXZ2 (GLEH); UTY-TFSXZ2; UTY-TFSXZ2; UTY-TFSXZ2 |
| | FJ-RC-WIFI-1 (GATH); FJ-RC-WIFI-1; FJ-RC-WIFI-1; FJ-RC-WIFI-1 (GATH); FJ-RC-WIFI-1 (GBTH); FJ-RC-WIFI-1; FJ-RC-WIFI-1 |
| External Switch Controller | UTY-TERX (both sides) |

# OPTIONAL PARTS LIST

## Others

| | Cassette 1-way Flow (AUXV 007/009/012/014/018/024 GLEH) | Cassette 3D Flow (AUXS 018/024GLEH) | Cassette 4-way Flow Compact (AUXB 007/009/012/014/018/024 GLEH, AUXB 09/12/14/18/24 GATH) | Cassette 4-way Flow (AUXD 18/24GALH, AUXA 18/24/30/34/36/45/54 GALH) | Cassette Circular Flow Slim (AUXM 018/024/030 GLEH, AUXM 018/024GTAH) | Cassette Circular Flow Large (AUXK 018/024/030/034/036/045/054 GLEH, AUXK 030/036/045/054 GTAH) | Duct Mini (ARXK 007/009/012/014/018/024 GLGH) | Duct Low Static Pressure (ARXB 07/09/12/14/18/24/30/36/45 GALH) | Duct Slim (ARXD 007/009/012/014/018/024 GLEH, ARXD 07/09/12/14/18/24 GATH) | Duct Medium Static Pressure (ARXA 024/030/036/045 GLEH, ARXA 24/30/36/45 GBTH) | High Static Pressure (ARXC 036/045/060 GTEH) | High Static Pressure (ARXC 072/090/096 GTEH) | Floor (AGYA 007/009/012/014 GCGH) | Ceiling / Floor (ABYA 012/014/018/024 GTEH) | Ceiling (ABYA 030/036/045/054 GTEH) | Wall Mounted (ASYA 07/09/12/14 GATH) | Wall Mounted (ASYA 007/009 012/014 GCGH) | Wall Mounted (ASYA 18/24GBCH, ASYA 18/24GACH) | Wall Mounted (ASYA 007/009/030/034 GTEH) | V-III (AJY 072/090/108/126/144/162 LALBH) | V-III Tropical (AJY 072/090/108/126/144/162 LNTCH) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IR Receiver Unit | UTY-TRHX | UTY-TRHX | UTY-TRHX | UTY-LRHYB1 | UTY-LBHXD | UTY-LBHXD | UTY-TRHX | UTB-YWC | UTY-TRHX (GLEH) / UTB-YWC (GATH/GBTH) | UTY-TRHX (GLEH) / UTB-YWC (GATH/GBTH) | UTY-TRHX | UTY-TRHX | | | | | | | | | |
| Occupancy Sensor Kit | | | | | UTY-SHZXC | UTY-SHZXC | | | | | | | | | | | | | | | |
| Remote Sensor Unit | | | | | | | UTY-XSZXZ1 | UTY-XSZXZ1 | | UTY-XSZXZ1 | UTY-XSZXZ1 | | | | | | | | | | |
| Cassette Grille | UTG-UNYA-W (007/009/012) UTG-UNYB-W (014/018/024) | UTG-USYA-W | UTG-UFYE-W UTG-UFYC-W | UTG-UGYA-W | UTG-UKYC-W UTG-UKYA-B | UTG-UKYC-W UTG-UKYA-B | | | | | | | | | | | | | | | |
| Auto Louver Grille Kit | | | | | | | UTD-GXTA-W (7/9/12/14) UTD-GXTB-W (18) UTD-GXTC-W (24) | | UTD-GXTA-W (7/9/12/14) UTD-GXTB-W (18) UTD-GXTC-W (24) | | | | | | | | | | | | |
| Silver ion filter II | | | | | | | | | | | | | | | | | | | UTR-FA16-8 (30/34) | | |
| Long Life Filter | | | | | | | | | | UTD-LF25NA | UTD-LF60KA | | | | | | | | | | |
| Flange | | | | | | | | | | UTD-SF045T UTD-RF204 | | | | | UTD-RF204 | | | | | | |
| Drain Pump Unit | | | | | | | | UTZ-PX1BBA (07/09/12/14/18) UTZ-PX1NBA (24/30/36/45) | | UTZ-PX1NBA | | | | | UTR-DPB24T | | | | | | |
| Wide Panel | | | | UTG-AKXA-W | UTG-AKXA-W | | | | | | | | | | | | | | | | |
| Panel Spacer | | | | UTG-BKXA-W | UTG-BKXA-W | | | | | | | | | | | | | | | | |
| Fresh Air Intake Kit | | | UTZ-VXAA | UTZ-VXRA | UTZ-VXRA | | | | | | | | | | | | | | | | |
| Air Outlet Shutter Plate | | | UTR-YDZB | UTR-YDZK | UTR-YDZK | | | | | | | | | | | | | | | | |
| Insulation for High Humidity | | | UTZ-KXGC | UTZ-KXRA | UTZ-KXRA | | | | | | | | | | | | | | | | |
| Half Concealed Kit | | | | | | | | | | | | | UTR-STA | | | | | | | | |
| External Power Supply Unit | UTZ-GXXC | | UTZ-GXXC (GLEH) | | | UTZ-GXXC (GLEH) | UTZ-GXXC | | UTZ-GXXC (GLEH) | UTZ-GXXC (GLEH) | | | UTZ-GXXC | | | | | | UTZ-GXXC | | UTZ-GXXC |
| Pressure Sensor Kit | | | | | | | | | | | | | | | | | | | | | UTY-SPWX |

Note: Remote Sensor Unit — "New amenity space can be offered by installing the Remote sensor."

# OPTIONAL PARTS

## Controllers

### For Individual Control

**Wired Remote Controller (Touch Panel )**
UTY-RNRYZ5

**Wired Remote Controller**
UTY-RLRY

**Compact Wired Remote Controller**
UTY-RCRYZ1

**Simple Remote Controller**
UTY-RSRY
With operation mode

**Simple Remote Controller**
UTY-RHRY
Without operation mode

**Wireless Remote Controller**
UTY-LNHY

**IR Receiver Unit**
UTB-YWC, UTY-TRHX
For 3D Flow Cassette, Duct type

**IR Receiver Unit**
UTY-LRHYB1
For Cassette type

**IR Receiver Unit**
UTY-LBHXD
For Circular Flow Cassette type

**Occupancy Sensor Kit**
UTY-SHZXC
For Circular Flow Cassette type

### For Centralized Control

**Central Remote Controller**
UTY-DCGYZ2

**Touch Panel Controller**
UTY-DTGYZ1

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

(Option)
UTY-PLGXR2, UTY-PLGXA2
UTY-PLGXE2, UTY-PLGXX2

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

(Option)
UTY-PEGXZ1

## Converters / Adaptors

### For External device

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

**BACnet™ Gateway** (Hardware)
UTY-VBGX

**Network Converter**
for LONWORKS™
UTY-VLGX

**MODBUS™ Converter**
for VRF
UTY-VMGX

**KNX™ Convertor**
for VRF
UTY-VKGX

**MODBUS™ Converter**
for Indoor unit
UTY-VMSX

**KNX™ Convertor**
for Indoor unit
UTY-VKSX

**Wireless LAN Adapter**
FJ-RC-WIFI-1

**Wireless LAN Adapter**
UTY-TFSXZ2

### For System expansion

**External Switch Controller**
UTY-TERX

**Signal Amplifier**
UTY-VSGXZ1

# OPTIONAL PARTS
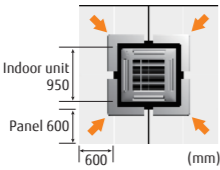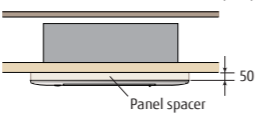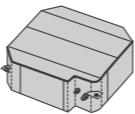
## Panels

### For Cassette type

**Cassette Grille**
UTG-UFYE-W

**For 4-way Flow Compact Cassette Grid type**

**Cassette Grille**
UTG-UFYC-W

**For 4-way Flow Compact Cassette Standard type**

**Cassette Grille**
UTG-UGYA-W

**For 4-way Flow Cassette type**

**Cassette Grille**
UTG-UKYC-W

**For Circular Flow Cassette type**

**Cassette Grille**
UTG-UKYA-B

**For Circular Flow Cassette type**

**Cassette Grille**
UTG-USYA-W

**For 3D Flow Cassette type**

**Cassette Grille**
UTG-UNYA-W

**For 1-way Flow Cassette type**

**Cassette Grille**
UTG-UNYB-W

**For 1-way Flow Cassette type**

## Others
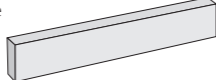
### For Cassette type

**Wide Panel**
UTG-AKXA-W

**For Cassette type**

Indoor unit 950
Panel 600
600 (mm)

**Panel Spacer**
UTG-BXKA-W

**For Cassette type** (mm)

50
Panel spacer

**Insulation Kit** for High Humidity
UTZ-KXRA

**For Cassette type**

UTZ-KXGC

**For Compact Cassette type**

**Fresh Air Intake Kit**
UTZ-VXAA

**For Compact Cassette type**

UTZ-VXRA

**For Cassette type**

* Not applicable for VRF V-II Tropical and V-III Tropical Series

**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**

### For Floor type

**Half Concealed Kit**
UTR-STA

**For Floor type**

This kit is used to half conceal floor type indoor unit into the wall.

### For Wall Mounted type

**Silver ion filter II**
UTR-FA16-8

## 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-XSZXZ1

**For All Duct type**

New amenity space can be offered by installing the Remote sensor.

**Long-Life Filter**
UTD-LF25NA

**For Medium Static Pressure Duct type**

UTD-LF60KA

**For High Static Pressure Duct type**

**Auto Louver Grille Kit**
UTD-GXTA-W (for ARXD04/07/09/12/14, ARXK04/07/09/12/14)
UTD-GXTB-W (for ARXD18, ARXK18)
UTD-GXTC-W (for ARXD24, ARXK24)

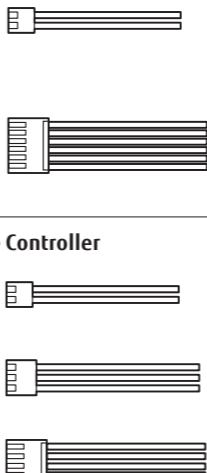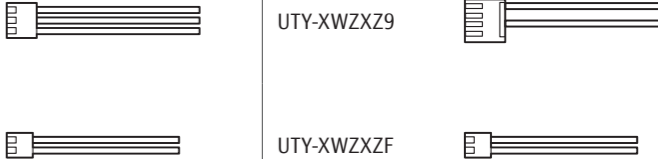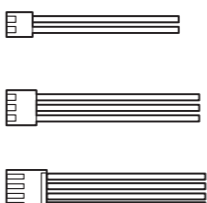**For Slim Duct type / Mini Duct type**

**Drain Pump Unit**
UTZ-PX1BBA
UTZ-PX1NBA

### For Indoor Unit

**External Power Supply Unit**
UTZ-GXXC

### For Outdoor Unit

**Pressure Sensor Kit**
UTY-SPWX

**For V-III, V-III Tropical**

### Communication system: External Connect Kit

**For Indoor unit**

UTY-XWZXZ7

UTY-XWZXZC

UTY-XWZXZD

UTY-XWZXZE

**For Outdoor unit**

UTY-XWZXZ9

UTY-XWZXZF

**For Central Remote Controller**

UTY-XWZXZ7

UTY-XWZXZ8

UTY-XWZXZA

**For Touch Panel Controller**

UTY-XWZXZA

# FUNCTION LIST

External Input and Output Function/External Connect Kit/Communication Kit

| | Indoor unit | | | | | | | | | | | Indoor unit | | | | | | | Outdoor unit | | | | Controller |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cassette | | | | | | Duct | | | | | Floor | Ceiling / Floor | Ceiling | Wall Mounted | | | | J-IIIL | J-III | J-IIS | V-III | V-III Tropical | Central Remote Controller |
| Type | One way flow cassette | 3D Flow | 4-way Flow Compact Grid type/ Standard type | 4-way Flow Slim type/ Large type | Circular Flow Slim type | Circular Flow Large type | Mini (With drain pump) | Low Static Pressure | Slim (With drain pump) | Medium Static Pressure | High Static Pressure | Floor | Ceiling / Floor | Ceiling | Wall Mounted | | | | J-IIIL | J-III | J-IIS | V-III | V-III Tropical | Central Remote Controller |
| | AUXV 007/009/012/ 014/018/024 GLEH | AUXS 018/024GLEH | AUXB 007/009/012/ 014/018/024 GLEH, AUXB 09/12/14/18/24 GATH | AUXD 18/24GALH, AUXA 18/24/30/34/ 36/45/54 GALH | AUXM 018/024/030 GLEH, AUXM 018/024GTAH | AUXK 018/024/030/ 034/036/045/054 GLEH, AUXK 030/036/045/054 GTAH | ARXK 007/009/012/ 014/018/024 GLGH | ARXB 07/09/12/14/18/ 24/30/36/45 GALH | ARXD 007/009/012/ 014/018/024 GLEH, ARXD 07/09/12/ 14/18/24 GATH | ARXA 024/030/ 036/045 GLEH, ARXA 24/30/36/45 GBTH | ARXC 036/045/ 060/072/ 090/096 GTEH | AGYA 007/009/ 012/014 GCGH | ABYA 012/014/ 018/024 GTEH | ABYA 030/036/ 045/054 GTEH | ASYA 07/09/12/14 GATH | ASYA 007/009 012/014 GCGH | ASYA 18/24GBCH, ASYA 18/24GACH | ASYA 007/009/030/034 GTEH | AJY 072/090/108/ 126/144/162 LELAH | AJY 040/045/054 LBLAH, AJY 040/045/054 LELAH, AJA 040/045/054 LBLAH | AJY 040/045/054 LCLAH | AJY 072/090/108 126/144/162 LALBH | AJY 072/090/108 126/144/162 LNTCH | UTY-DCGYZ2 |

**Input**

| Operation / Stop | ●UTY-XWZXZD (Cassette–Duct span) | | | | | | | | | | | ●UTY-XWZXZD (Floor–Wall span) | | | | | | | | | | | | |
| All On / All Off | | | | | | | | | | | | | | | | | | | | | | | | ●UTY-XWZXZ7 ○UTY-XWZXZ8 |
| Forced Stop | ●UTY-XWZXZD | | | | | | | | | | | ●UTY-XWZXZD | | | | | | | | | | | | |
| Emergency Stop | ●UTY-XWZXZD | | | | | | | | | | | ●UTY-XWZXZD | | | | | | | | | | | | ●UTY-XWZXZ7 ○UTY-XWZXZ8 |
| Forced Thermostat off | ●UTY-XWZXZE ○UTY-XWZXZ7 | | | | | | | | | | | ●UTY-XWZXZE ○UTY-XWZXZ7 | | | | | | | | | | | | |
| Power Usage Information from Electricity Meter | | | | | | | | | | | | | | | | | | | | | | | ●UTY-XWZXZF | |

**Output**

| Operation Status | ●UTY-XWZXZC | | | | | | | | | | | ●UTY-XWZXZC | | | | | | | | | | | | ○UTY-XWZXZA |
| Error Status | ●UTY-XWZXZC | | | | | | | | | | | ●UTY-XWZXZC | | | | | | | | | | | | ○UTY-XWZXZA |
| Indoor Unit Fun Operation Status | ●UTY-XWZXZC | | | | | | | | | | | ●UTY-XWZXZC | | | | | | | | | | | | |
| Auxiliary Heater Output | ●UTY-XWZXZC | | | | | | | | | | | | | | | | | | | | | | | |
| Base Heater | | | | | | | | | | | | | | | | | | | | ●UTY-XWZXZ9 | | | ●UTY-XWZXZ9 | |

*1: Touch Panel Controller has these functions for Dry contact and Apply voltage, however, above External Connect Kit is not necessary because Touch Panel Controller has an external input terminal block.

● : Dry Contact   ○ : Apply Voltage

OPTION

# SEPARATION TUBE etc.

## Connection Units

### Separation Tube

| UTP-AX054A | UTP-AX090A | UTP-AX180A |
|---|---|---|
| Gas Pipe<br><br>Liquid Pipe | Gas Pipe<br><br>Liquid Pipe | Gas Pipe<br><br>Liquid Pipe |

| UTP-AX567A | UTP-LX180A for DX Kit | |
|---|---|---|
| Gas Pipe<br><br>Liquid Pipe | | |

### Header

| UTR-H0906L / UTR-H1806L | UTR-H0908L / UTR-H1808L | |
|---|---|---|
| Gas Pipe<br><br>Liquid Pipe | Gas Pipe<br><br>Liquid Pipe | |

### Outdoor Unit Branch Kit

| UTP-CX567A | | |
|---|---|---|
| Gas Pipe<br><br>Liquid Pipe | | |

## Specifications

### Separation Tube

| Model name | | UTP-AX054A | UTP-AX090A | UTP-AX180A | UTP-AX567A |
|---|---|---|---|---|---|
| Total cooling capacity of indoor unit | kW | 19.6 or less | 28.0 or less | 28.1 to 56.0 | 56.1 or more |

### 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 |

### Outdoor unit Branch kit

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

# SUPPORT

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

SUPPORT

VRF / 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 | | | | | | | | | | | | • | | | • | • |

# 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 VRF Systems
• Control System on-site training
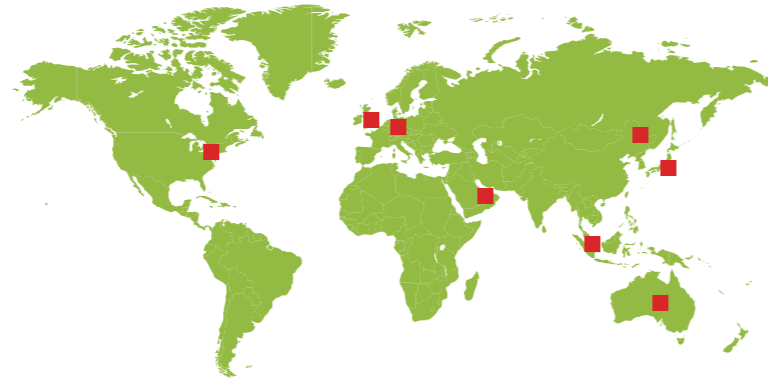


1 Head office training center in Japan
2 Training center in China
3 Asia training center in Singapore
4 Europe training center in the United Kingdom
5 Europe training center in Germany
6 America training center in the United States
7 Middle East training center in the UAE
8 Oceania training center in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

## Technical information

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

**Features**

• Design & Technical Manual
• Model Selection & Estimation
• Certificate Data
• 2D/3D CAD Data
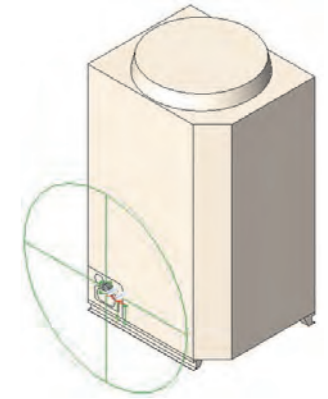
## Product information

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

**Features**

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

## Technical support

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

**Features**

• CFD Simulation
• Guide line
• Commissioning Support

| | |
|---|---|
| 52.000 | |
| 47.750 | |
| 43.500 | |
| 39.250 | |
| 35.000 | |
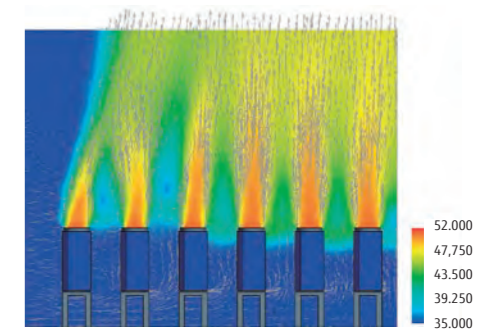
CFD Simulation

Commissioning Support

# VRF / 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.
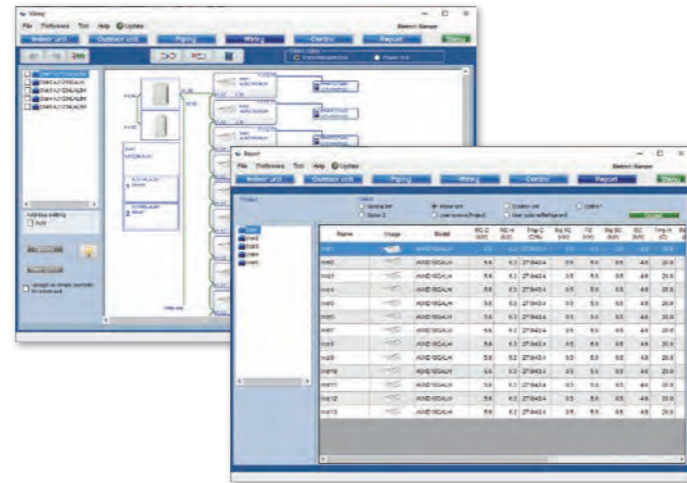
### Output the format that matches the application

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)
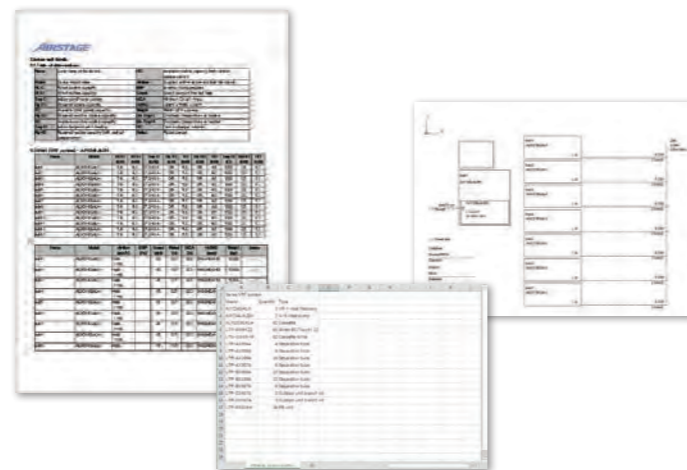
### Update your Design Simulator

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)
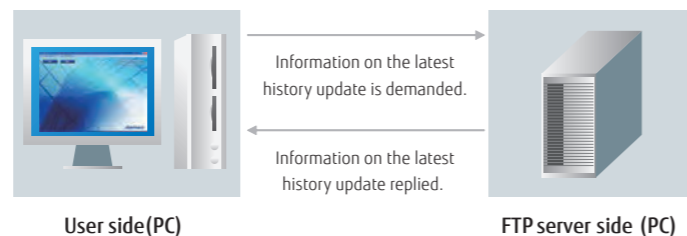
## BIM  Building Information Modeling

### 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
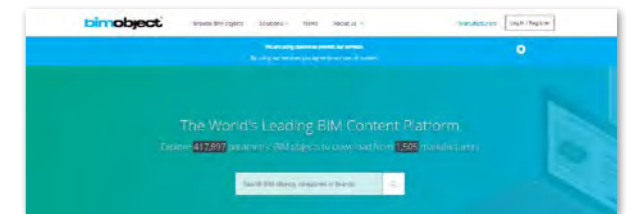
Go to search bar and key in the brand name FUJITSU GENERAL to search the products

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

**A** DWG
Standard data available for Autodesk's products.

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

Type catalog (specifications of product)

**DXF** 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
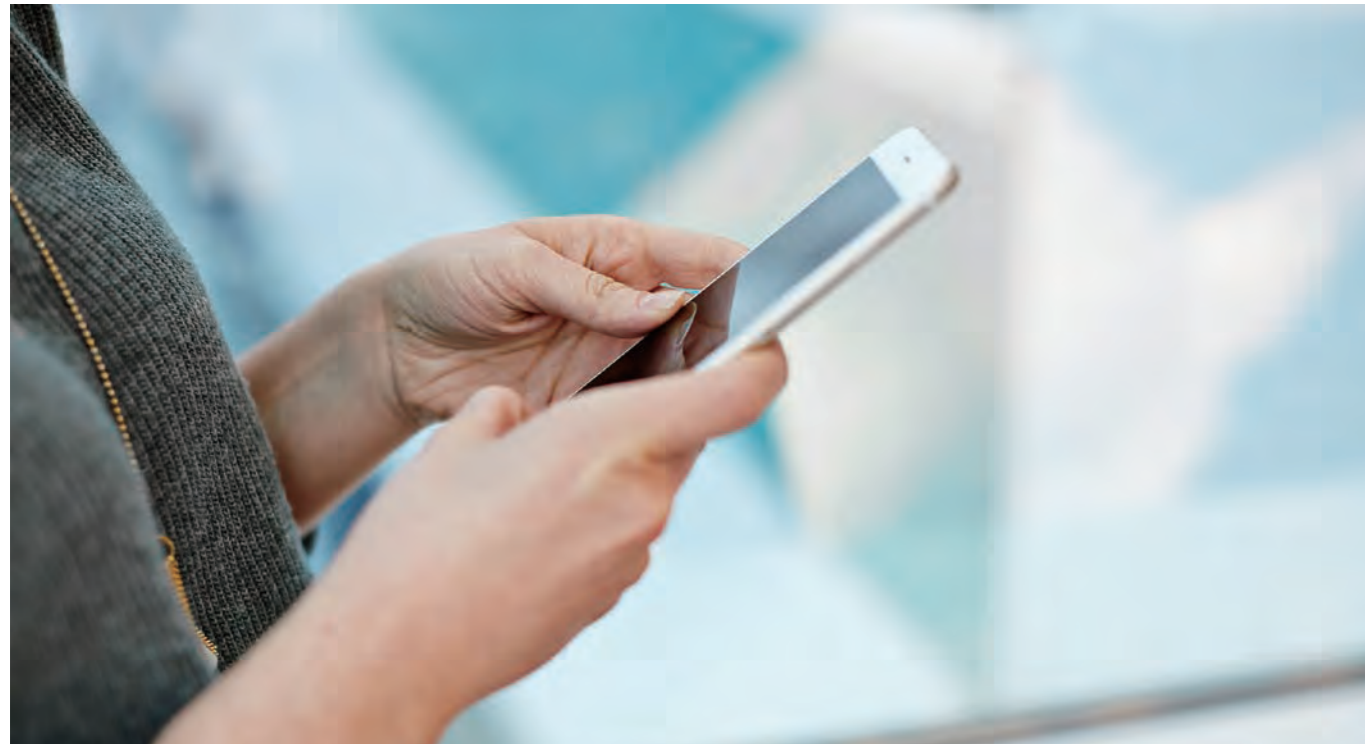
We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products. This application is a troubleshooting tool for Fujitsu General air conditioner (Room air conditioner / Packaged air conditioner, VRF, FGLair, R32 calculation of allowable refrigerant capacity)

It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.

**Mobile Technician** FREE

## 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
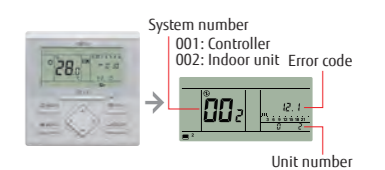• Address/Type/Number of outdoor unit
• Error code.

**7-segment LED**

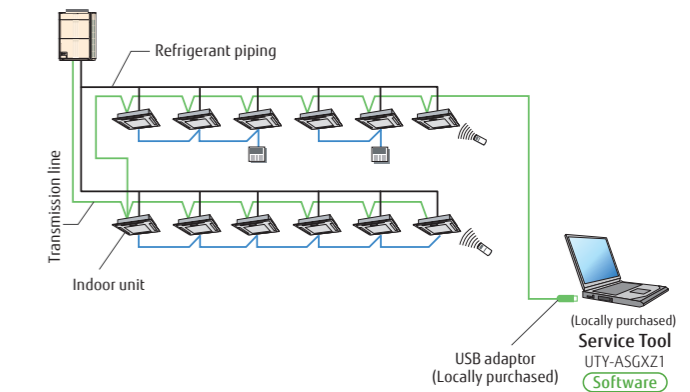**Wired Remote Controller (Touch panel)**
Error status/Error history
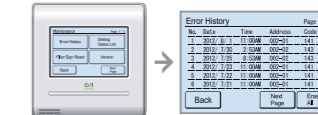
**Wired Remote Controller**
System number
001: Controller
002: Indoor unit  Error code
Unit number

### 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

Refrigerant piping
Transmission line
Indoor unit
(Locally purchased)
**Service Tool**
USB adaptor
(Locally purchased)  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
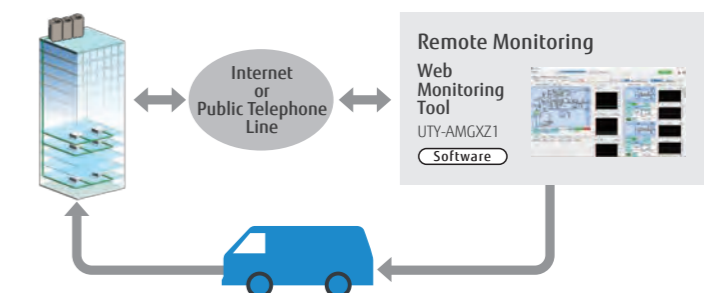
# SERVICE TOOL

## 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)
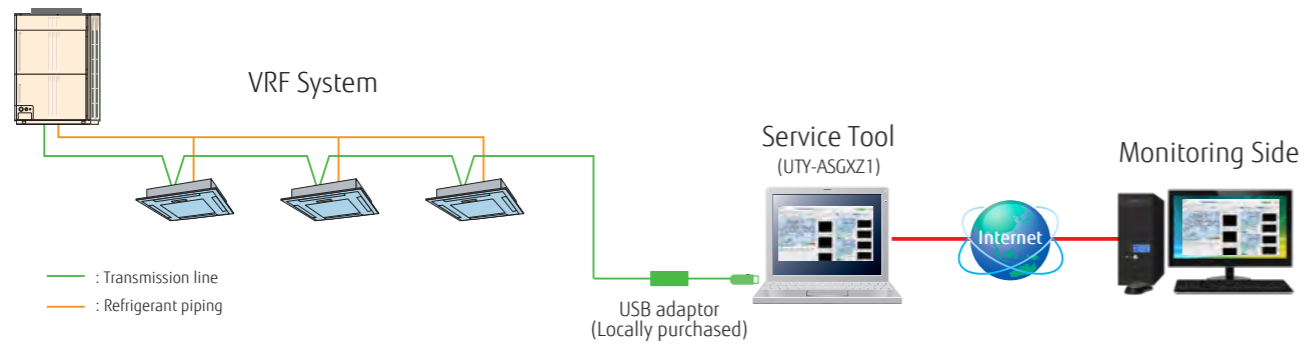
### Automatic operation check for refrigeration cycle

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.

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.

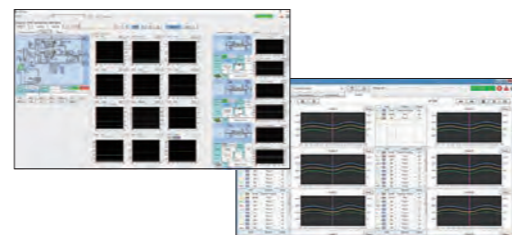[Note] Use only as a guide and judge for yourself finally.

### 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
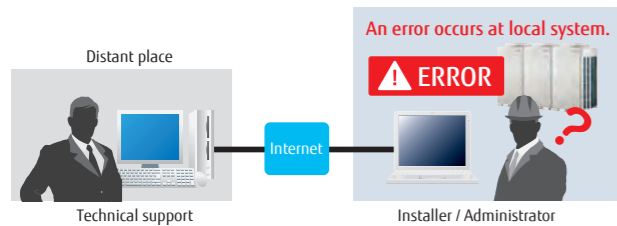
### Various trend graph display

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.

## Custom Auto Function

Custom Auto operation display
Custom Auto setting

### Function summary

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

### Personal computer system requirements

| | UTY-ASGXZ1 |
|---|---|
| Operating system | • Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1<br>• Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)<br>• 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])<br>• 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.

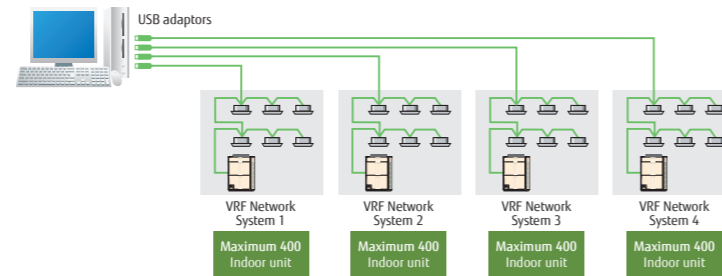*1: Use of internet mail system required.
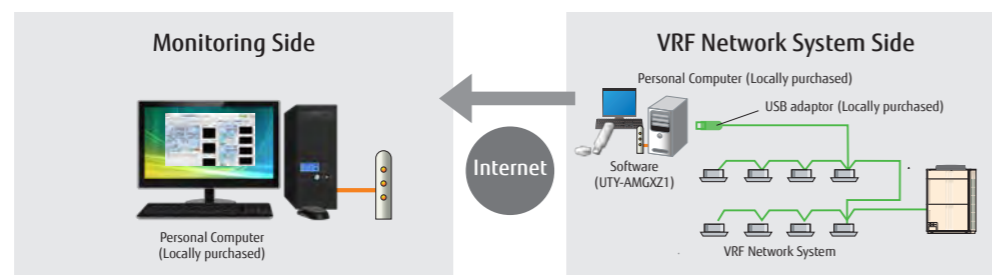
## Functions

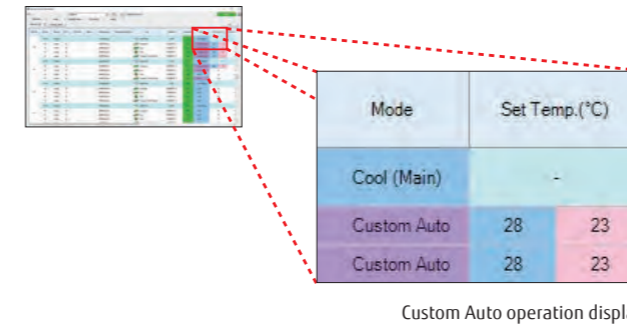### Web Monitoring System
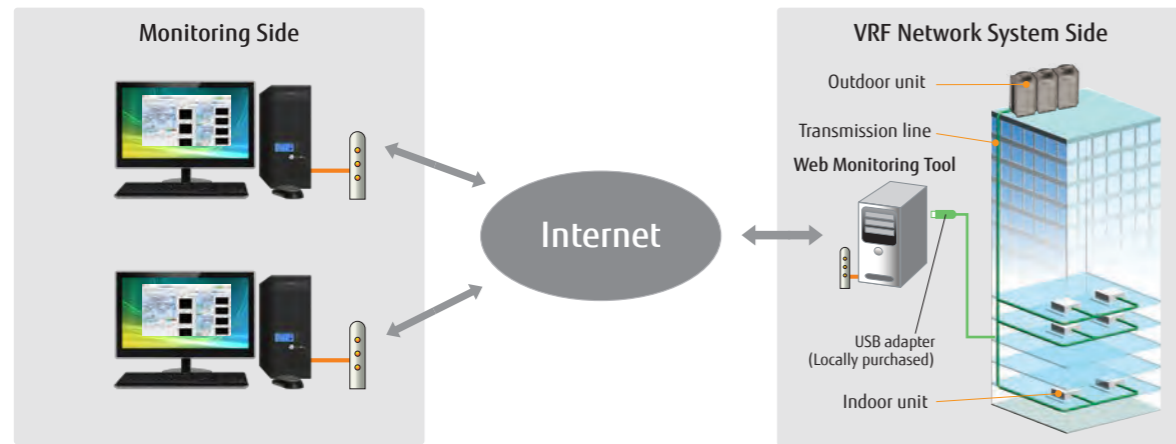


### Support 4 VRF network systems

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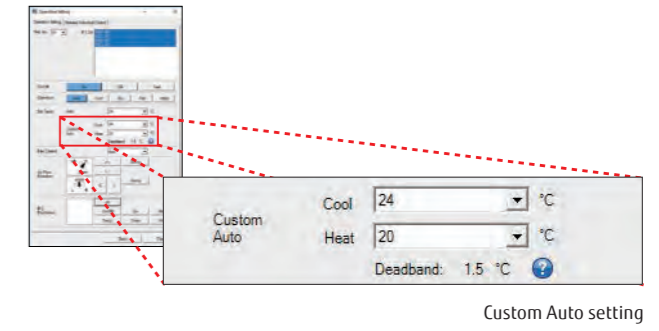Suitable for large-scale buildings or hotels.



### System components



## 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 | ● |
| Custom Auto function | ● |
| Display of individual louver control function | ● |
| Display of human sensor control function | ● |

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| 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)<br>• Either of the following interface is required for remote connection:<br>  - Public Telephone Line: Modem is required<br>  - 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.)

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•Personal computer that satisfies the following system requirements