FUJITSU

AIRSTAGE™

VRF
Variable Refrigerant Flow System

CATALOGUE
Heat Pump & Heat Recovery

Refrigerant
R410A

INVERTER

for Oceania

FUJITSU GENERAL LIMITED

CREATION OF COMFORT

Fujitsu General's VRF AIRSTAGE™ series has been developed based on years of research and development and expertise in commercial air conditioning solutions. The AIRSTAGE™ series provides high efficiency and reliability for all users, offering air conditioning systems with individual or central control. With a wide range of VRF systems included in the series, there is an AIRSTAGE™ solution available to best meet the needs of any project you are specifying.

Commercial

NEW

Heat Recovery Modular type
for simultaneous heating and cooling operation

AIRSTAGE VR-II

8HP - 48HP 33 models
• Space saving combinations: 8HP to 48HP / 21 models
• Energy efficiency combinations: 16HP to 42HP / 12 models

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NEW

Heat Pump Modular type
for heating or cooling operation

AIRSTAGE V-III

8HP - 48HP 33 models
• Space saving combinations: 8HP to 48HP / 21 models
• Energy efficiency combinations: 16HP to 42HP / 12 models

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Residential & Light Commercial

NEW

Heat Pump type
for heating or cooling operation

AIRSTAGE J-IIIL

8HP - 12HP 3 Models
• 3 phase

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Heat Pump type
for heating or cooling operation

AIRSTAGE J-III

4HP - 6HP 3 models
• Single phase

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Heat Pump type
for heating or cooling operation

AIRSTAGE J-IIS

4HP - 6HP 3 models
• Single phase

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CONTENTS

FLEXIBLE SOLUTIONS

Fujitsu General have been developing and manufacturing high quality and energy efficient products for more than 35 years. Using the latest Japanese technology and state of the art expertise, our products have been designed in accordance with our aim of creating the most comfortable environment possible, regardless of the project type or design.

AIRSTAGE™ Series

Consistent Reliability

High Energy Efficiency

Comfort Maximised

THE TOTAL SOLUTION

Design Flexibility

Easy Installation, Service and Maintenance

Property Suitability

RESIDENTIAL & LIGHT COMMERCIAL

Fujitsu General offer a diverse range of air conditioning systems focused on residential and small sized buildings.

COMMERCIAL

Fujitsu General provide single and modular type VRF systems with efficient operation, comfort, design flexibility, easy installation and consistent reliability.

AIRSTAGE™
NEW PRODUCT LINEUP

VRF AIRSTAGE™ J-IIIL

- 8HP to 12HP class - 3 phase 3 models
- Compact and noise reducing design
- Flexible installation
- Up to 22 connectable indoor units
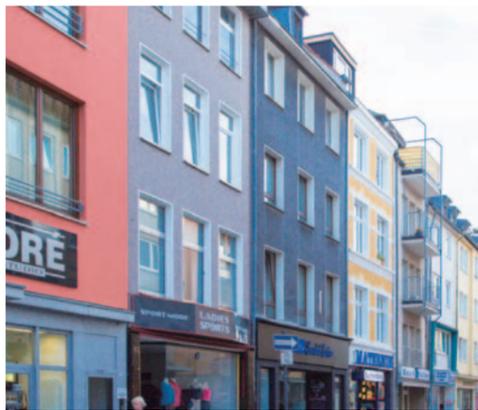
AIRSTAGE™ J-IIIL

VRF AIRSTAGE™ VR-II / V-III

- Expanded outdoor unit lineup with new 16HP model
- Up to 48HP capacity across 33 models
- Up to 64 connectable indoor units
- Greater design flexibility

AIRSTAGE™ VR-II
AIRSTAGE™ V-III

Remote Controllers

Wired Remote Controller (Touch Panel)

- Easy-to-use with a simple user-friendly interface
- 2 separate set points for heating and cooling
- Automatically changes mode between heating or cooling
- Controls up to 16 indoor units

Simple Remote Controller

- Controls up to 16 indoor units
- Simple and stylish design
- Large LCD screen
- Provides access to basic operation functions

Without Operation Mode

Centralised Control

Touch Panel Controller (with web control)

- Controls up to 400 indoor units
- Control and monitor via LAN or internet
- Easy maintenance and installation
- Central control and monitoring of small to medium sized buildings

System Controller (Software)
Small to large scale buildings

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled
- Simple BMS, 3rd party devices supported by Modbus communication can be controlled

System Controller Lite (Software)
Small to medium scale buildings

- Up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units can be controlled

Converter / Adaptor

Options

- A range of converters and adaptors, with both software and hardware options

BACnet®Gateway

Software (1600 units)

Hardware (128 units)

KNX® Convertor
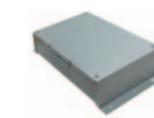
For VRF (128 units)

Service Maintenance & Monitoring Tools

Service Tool (Software)

- Evaluate up to 400 indoor units and 100 outdoor units
- Extensive monitoring and analysis functions available

Web Monitoring Tool (Software)

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks
- VRF systems monitor up to 1600 indoor units
- Automatic refrigeration cycle check

SMALL OFFICES

Fujitsu General provide a wide range of solutions designed to meet the needs of a small building. With energy saving features, low noise design and centralised control, this range is sure to meet your light commercial projects requirements.

AIRSTAGE™ J-ⅢL

Energy saving solutions suitable for meeting rooms and private offices

When there are no people in the room, the save energy operation feature can start automatically to prevent unnecessary power consumption by utilising a human sensor feature and external input / output kit.
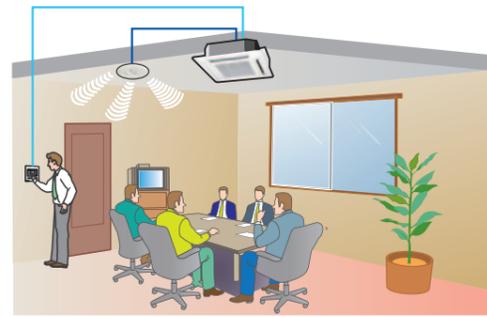
Compact outdoor unit with low noise

This compact outdoor unit achieves significant space saving, meaning you can install it on a rooftop or in a plant room. This unit secures enough static pressure even if there are louvers. Low noise operation is possible at night by utilising low noise mode.
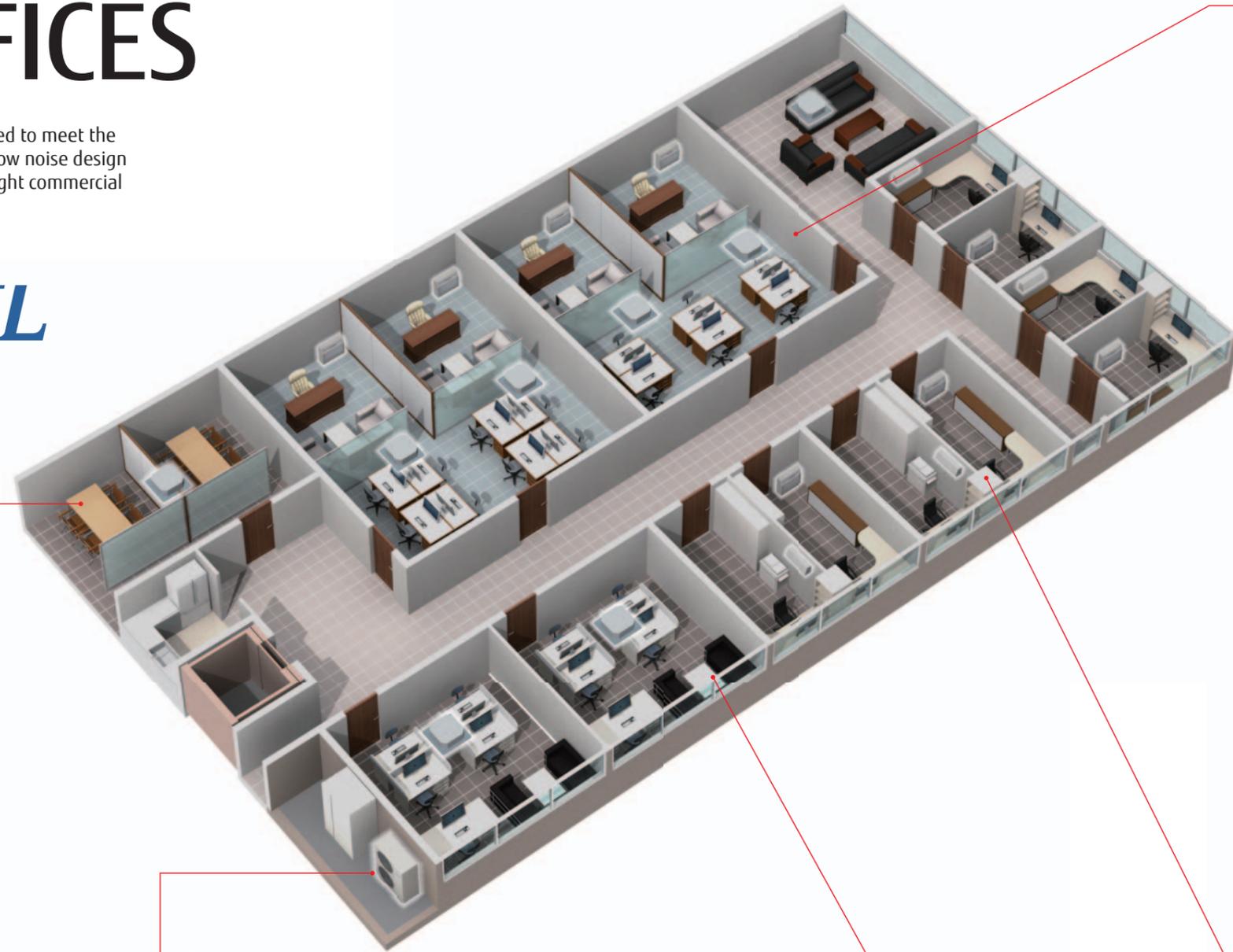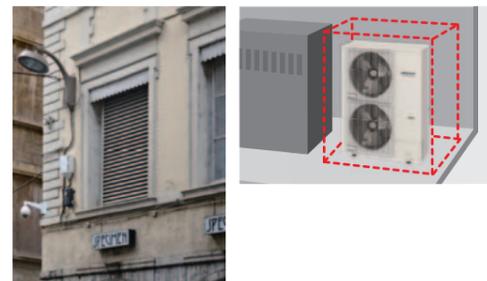
NEW

Small VRF System

Up to 12HP using the compact outdoor unit

The small VRF system is suitable for buildings with multiple small rooms. Max. 22 indoor units can be connected.

Even airflow throughout your space

NEW

The Circular Airflow Cassette creates a consistent and even temperature via multi-directional airflow functionality.

Each louver can be set individually by the controller* to protect people from being exposed to direct airflow.

Energy saving operation commences when there are no occupants by linking up with the human sensor option. The unit will adjust it's operation depending on the presence of occupants within a given room. The human sensor detects movement and activates or deactivates energy saving mode accordingly.

3.2m
8.8m
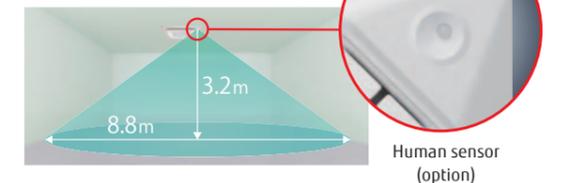
Human sensor (option)

Indoor units

Extensive range of low capacity indoor units to suit small rooms or spaces.

NEW

Centralised control of both air conditioning and lighting

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

System Controller Lite

VRF indoor units			
Wall Mounted	Floor	Duct	Cassette

Facilities			
Lighting	Ventilation	Energy Recovery Ventilator

*Touch panel wired RC (UTY-RNRYZ2), Touch Panel Controller (UTY-DTGYZ1), System Controller (UTY-APGXZ1), System Controller Lite (UTY-ALGXZ1)

SHOPS, RESTAURANTS
& MIXED USE DEVELOPMENTS

Purpose built and tenant friendly solutions for small commercial complexes.

COMPLEX BUILDING

Small VRF system

LAN or Wireless LAN

Tablet

PC

Centralised control of air conditioning for all tenants

Centralised control through the simple touch panel enables individual tenant scheduled operation and electricity charge apportionment.*
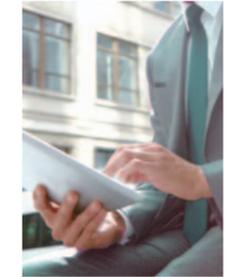
Remote monitoring

Air conditioning systems can be monitored from a remote location. This means less downtime and faster diagnostics of operational errors.

High Static Pressure Duct

AIRSTAGE™
Small VRF system

Air conditioning options for open areas

Large duct system suitable or appropriate for high ceiling and large open atrium spaces

SHOPS

Capable of cooling in low ambient conditions

Low outside air temperature cooling operation is necessary in winter in stores with a lot of heat inside. Our air conditioning systems allow flexibility supporting cooling operation at -15°C.

Circular Flow Cassette

RESTAURANT
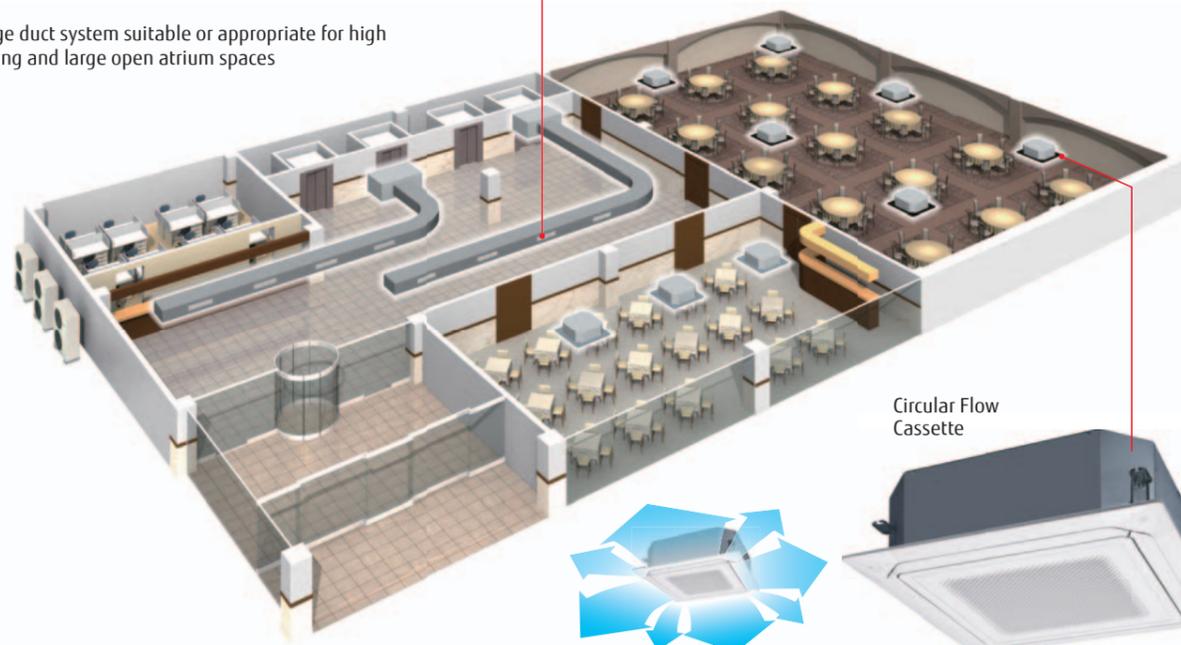
NEW Uniform air distribution for large areas

Air distribution design allows for circular airflow to spread to every corner of the room.

30-150 Pa

Medium Static Pressure Duct

*Option UTY-PTGXA required for ECA

HOTELS
& APARTMENTS

Fujitsu General provides energy saving air conditioning systems offering flexible installation and cutting edge design solutions for hotels and apartments that also take into account comfort, efficiency, external appearance, and system safety features.

AIRSTAGE™ VR-II

Individual cooling and heating responsiveness

Heat recovery functionality allows simultaneous cooling and heating operation, with a maximum outdoor capacity of 48HP.

Smart and cutting edge design. Extensive lineup from 8HP to 48HP in 2HP increments. Connectable indoor unit capacity ratio of 50 to 150%.

8HP - 48HP 33 models
• Space saving combinations: 8HP to 48HP / 21 models
• Energy efficiency combinations: 16HP to 42HP / 12 models

Large area air conditioning for reception and lobby areas

High Static Pressure Duct suitable for large spaces with high ceilings.

High Static
Pressure Duct

Ventilation support

Outdoor Air Units connect with the VRF system to meet ventilation requirements.

Outdoor Air Unit
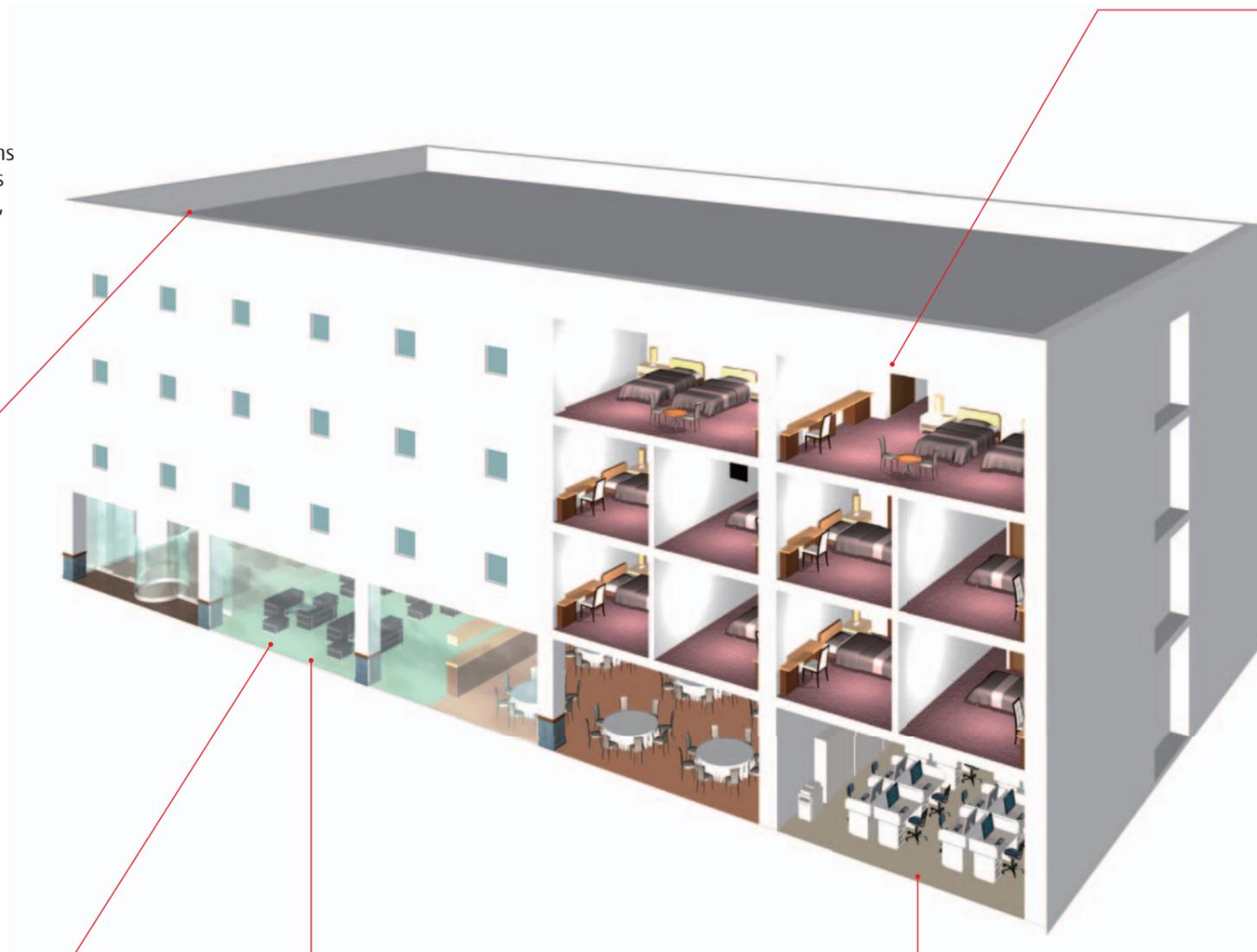
Guest room air conditioning delivering excellent comfort, energy efficiency and easy installation

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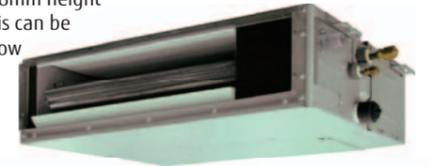
Mini Duct

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

Simple Remote Controller with sophisticated design

Room card switch available
Using the room card prevents guests from forgetting to switch off the air conditioner when departing their room.

Use of an external connection switch

Centralised control in shared spaces

Air conditioning in shared spaces such as waiting areas and hallways are controlled centrally. Temperature and operating conditions can be managed without manual adjustment by guests.

System Controller

LARGE BUILDINGS

Fujitsu General provides modular VRF systems that are highly efficient, reliable and offer flexible installation for large or high rise buildings.

Diverse lineup suitable to match your operating environment

The VRF V-III series lineup is designed to meet various needs with energy efficient models, these units are compatible with high outdoor air ambient temperatures.

NEW

Heat Pump Modular type for heating or cooling operation

AIRSTAGE™ V-III

8HP - 48HP 33 Models
• Space saving combinations: 8HP to 48HP / 21 models
• Energy efficiency combinations: 16HP to 42HP / 12 models

Centralised control of both air conditioning and lighting

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

System Controller
(UTY-APGXZ1)

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

VRF indoor units		
Under Ceiling	Cassette	Duct

Facilities		
Lighting	Ventilation	Energy Recovery Ventilator
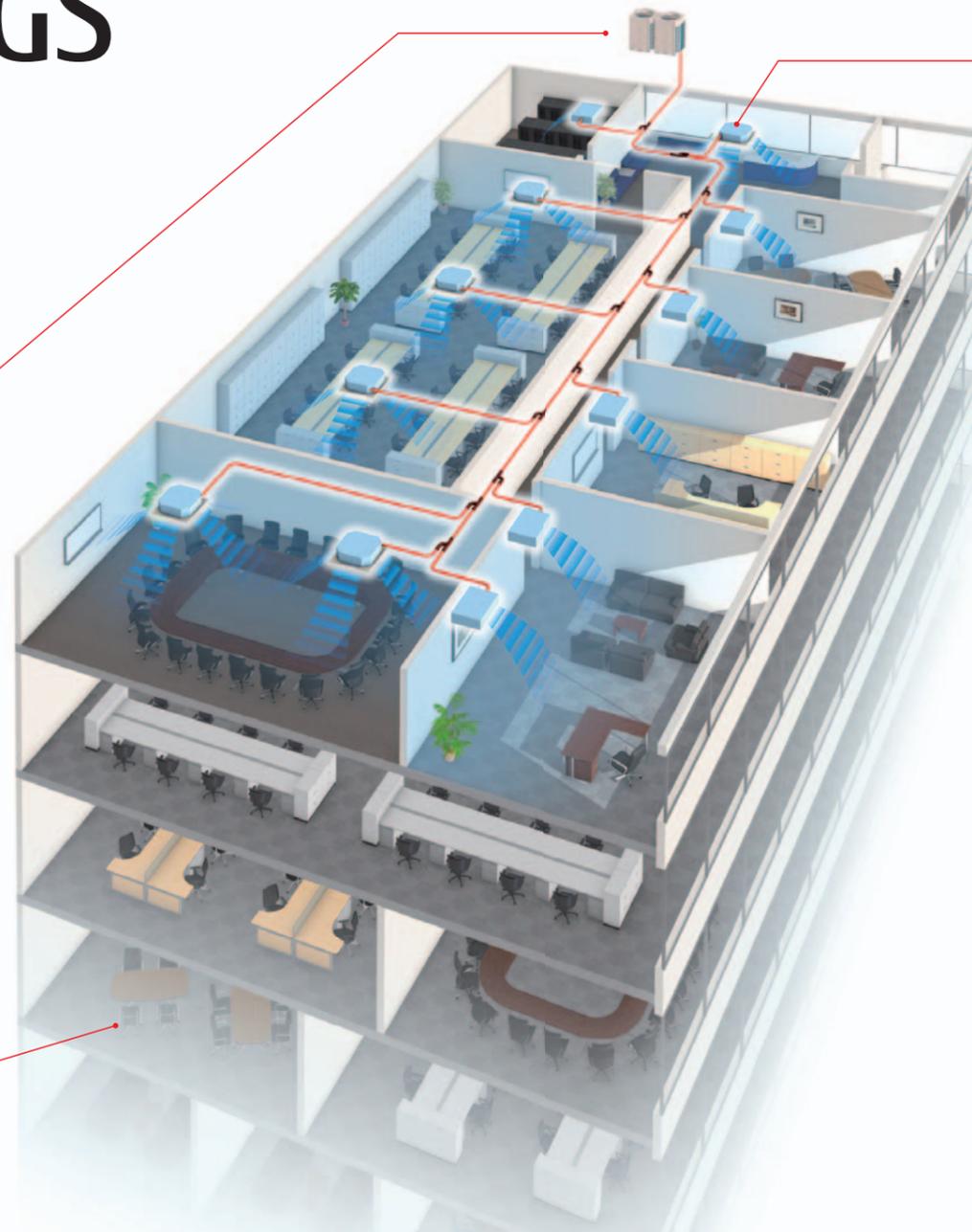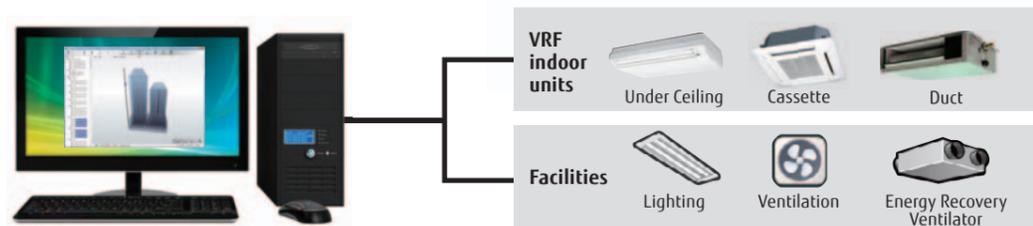
4-way Flow Cassette

Improved airflow distribution
The unique design of the louvers and added space between the chassis and ceiling maximises airflow distribution within the room .

Bottom view

Front part   Ceiling

Rear part
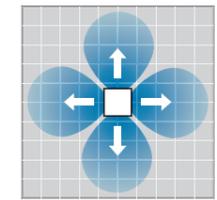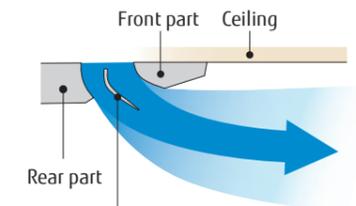
Round louvre

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

Standard mode
3.2m

High ceiling mode
4.2m

1m
2m
3m
4m
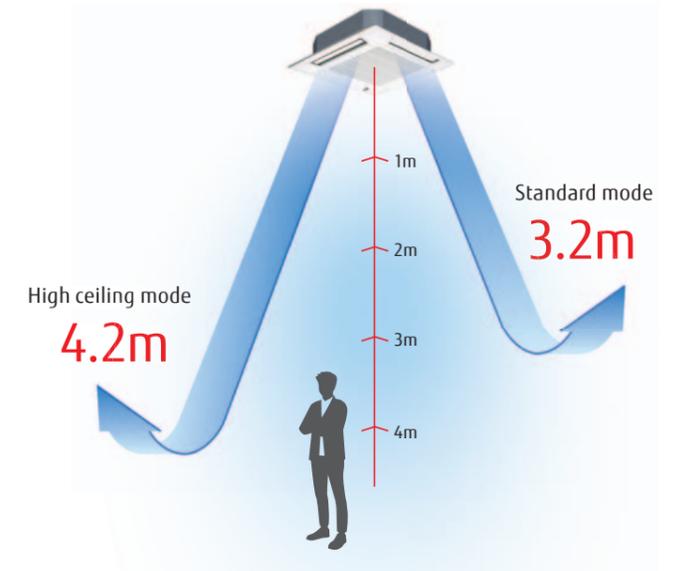
BMS integration

Major protocols including Modbus, BACnet, KNX and LonWorks are supported allowing Fujitsu AIRSTAGE™ equipment to be easily integrated.

KNX™   LONWORKS®

Modbus   BACnet

AIRSTAGE™
CORE TECHNOLOGY

HIGH ENERGY EFFICIENCY

MAXIMISED COMFORT

CONSISTENT RELIABILITY

DESIGN FLEXIBILITY

EASY INSTALLATION

**EASY SERVICE & MAINTENANCE**

AIRSTAGE™

HIGH ENERGY EFFICIENCY

Performance and Control

Room temperature set point limitation

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

(°C) Heating Cooling

Original set temperature   Set point limitation setting
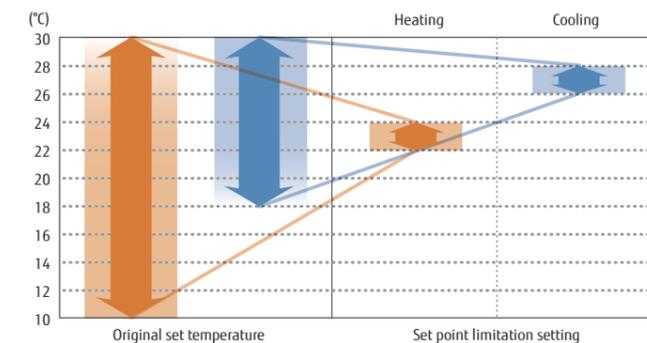
Auto-off timer

The new wired remote controller is equipped with an OFF timer function that automatically stops the units operation when a fixed time has elapsed from the start of operation. The schedule for the auto off timer can be programmed.

Set interval time hour (17:00 to 24:00)
ON Auto OFF
Set off time
(30 to 240 minutes)
OFF
17:00 24:00
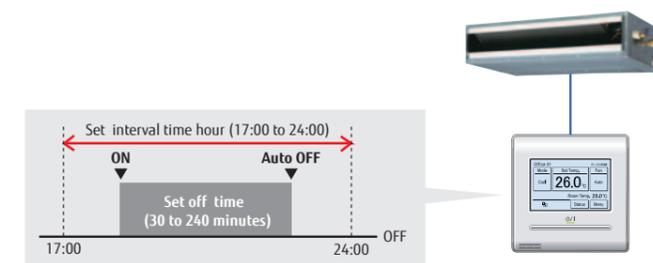
Energy saving management

A variety of energy saving operations can be set and managed depending on the season, weather and time period using the system controller.

Energy management software (Option)

System Controller
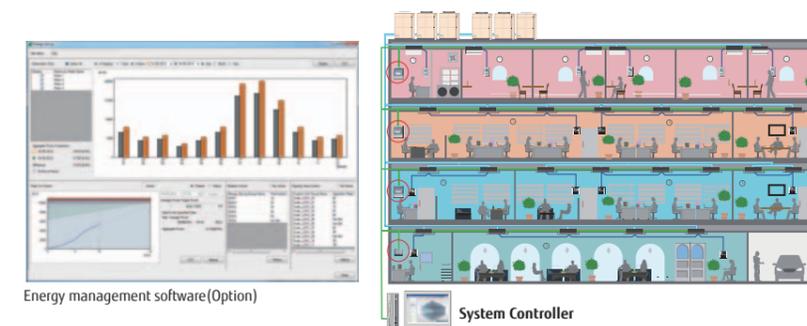
Operational capacity

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

Setting range
Capacity
Capacity save
100%
Setting level
80%
60%
40%
0%
Time

Energy Efficiency Comparison

Operational efficiency has improved significantly through the new DC twin rotary compressor, inverter technology and large heat exchanger.

New model
Previous model
EER   COP

+12% 2.98 **3.35**
+19% 3.15 **3.75**
+35% 3.2 **4.31**
+31% 3.7 **4.84**
+8% 3.45 **3.71**
+7% 3.95 **4.23**

Heat Recovery (10HP)
VR-II series

Heat Pump (8HP)
V-III series

Heat Pump (6HP)
J-III series

MAXIMISED COMFORT

Precise refrigerant flow control

Precise and smooth refrigerant flow control is achieved by using the DC Inverter control in conjunction with an individual indoor unit electronic expansion valve. This allows the set temperature to be controlled ±0.5°C.

High
Set temp. | Hot | Hot
Cold
Low

±0.5℃

Reaches the set temperature quickly

Thermal room temperature changes
*Simulation in heating operation.

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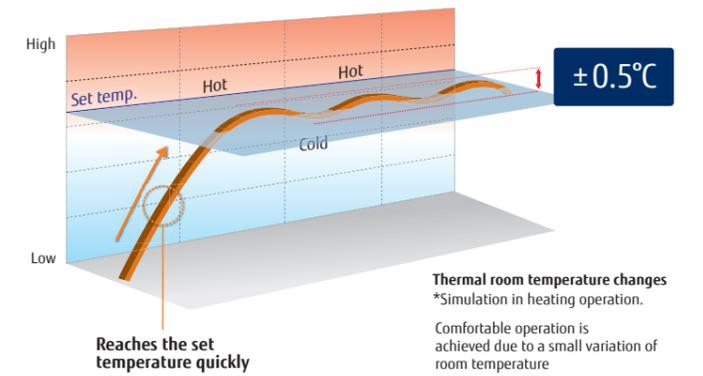
Quiet operation

Low noise mode

Two low noise modes can be selected automatically through the 'quiet priority setting' and 'capacity priority setting' depending on the noise or capacity requirements. This feature can be controlled via an outdoor unit external input and/or system controller.

Quiet priority setting

Air conditioning load factor — Heat load
Capacity 100% / 0 — down
Operating sound 58dB / 0
time
Quiet priority low noise mode

Capacity priority setting

Air conditioning load factor — Heat load
Capacity 100% / 0 — Alternated automatically
Operating sound 58dB / 0
Reset automatically — time
Capacity priority low noise mode
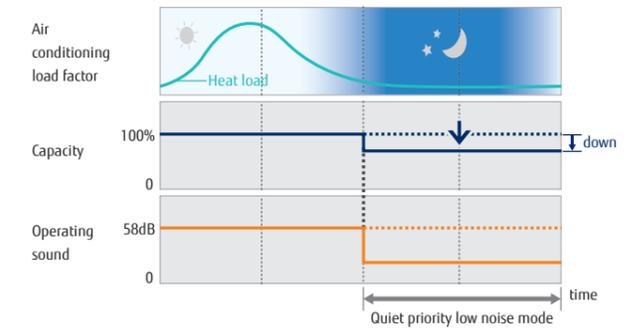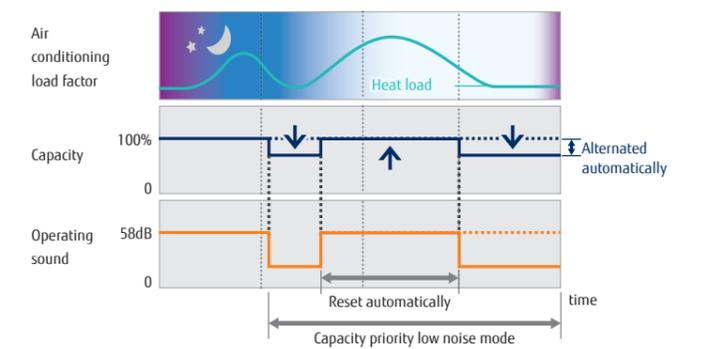
Auto change over function

When the auto setting is selected, the unit automatically switches between cooling and heating modes according to the set temperature and room temperature.

2°C
0.5°C
Set Temp.
-0.5°C
-2°C
time

Cooling operation ······ Cooling fan operation
Heating operation ······ Heating fan operation
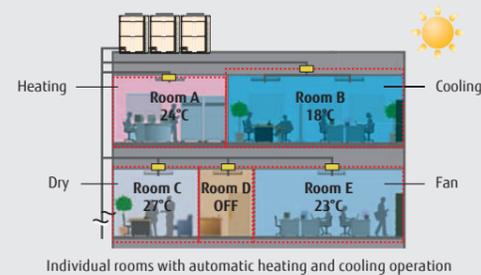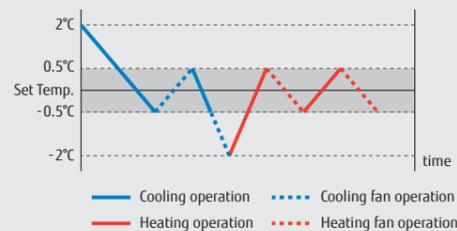
The auto change over setting allows for the product to easily switch between the cooling and heating modes regardless of the operation mode of the other indoor units. This can be done via a specific indoor unit with wired remote controller. This ensures comfortable operation all year round.

Heating
Room A 24°C | Room B 18°C
Cooling
Dry
Room C 27°C | Room D OFF | Room E 23°C
Fan

Individual rooms with automatic heating and cooling operation

Switching to cooling and heating mode with a specific remote controller in the main room, etc.
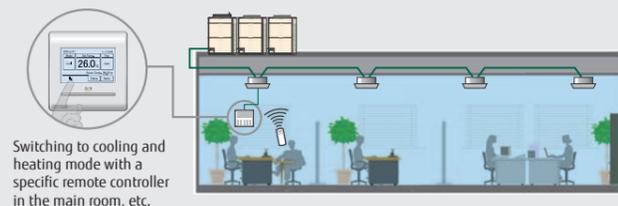
Non-stop oil recovery operation

A comfortable room temperature is maintained during the oil recovery mode as the unit continues to operate without stopping the cooling or heating operation.

*Not available on the AIRSTAGE VR-II

Previous model | V-III series | (Heating operation)

Operation stopped at oil recovery

Non-stop oil recovery operation

ON
OFF
Time

ON
Time

CONSISTENT 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 system error.
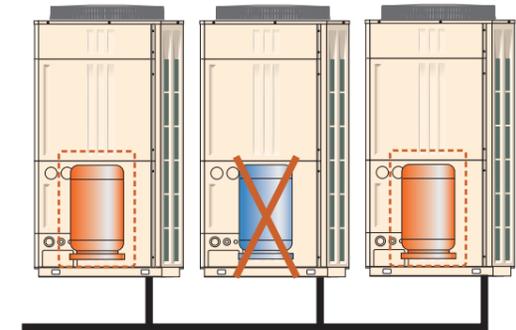
Advanced refrigerant control

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**

Outdoor unit rotational operation

The compressor starting order is rotated so that the running time is shared.

Rotation

Rotation   Rotation

Note: Rotational operation is alternated by the start / stop timing of the compressor.
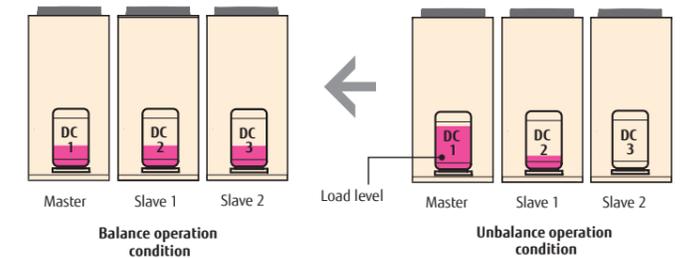
Liquid flow back protection

Through a larger accumulator, the non vapourised refrigerant stays within the accumulator to ensure no liquid refrigerant is being fed into the compressor.

from Evaporator

Vapourised refrigerant

Compressor

Large sized Accumulator

Liquid refrigerant (stays inside of accumulator)
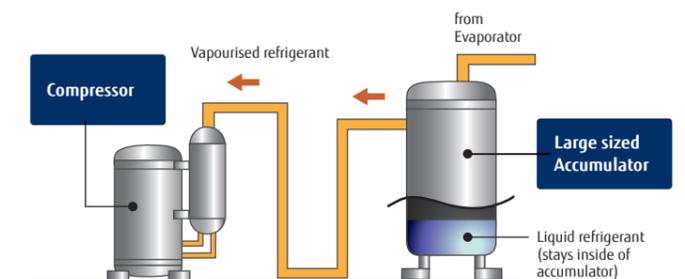
Adoption of blue fin heat exchanger

The corrosion resistance of the outdoor heat exchanger has been improved by the introduction of blue fin treatment.

Blue fin heat exchanger

Cobalt Blue protection

Standard chromate protection

Aluminium base material

Hydrophilic coating
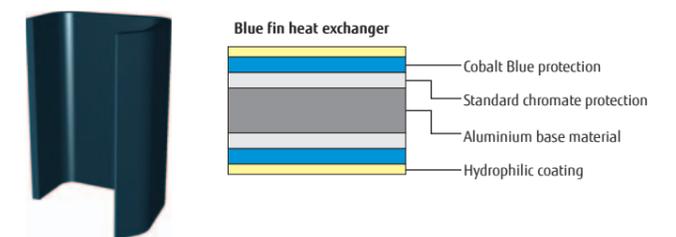
DESIGN FLEXIBILITY

Overall piping length 1,000m

Total pipe length
1,000m max.

Actual pipe length
165m
(VR-II, V-III)

Height difference between outdoor and indoor units
50m max.

For the outdoor unit installed below the indoor units: 40m max.

Pipe length from first separation tube to the farthest indoor unit
60m max.
(VR-II)
90m* max.
(V-III)

Height difference between indoor units
15m max.

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

High static pressure

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

Powerful discharge of air prevents a short-circuit.
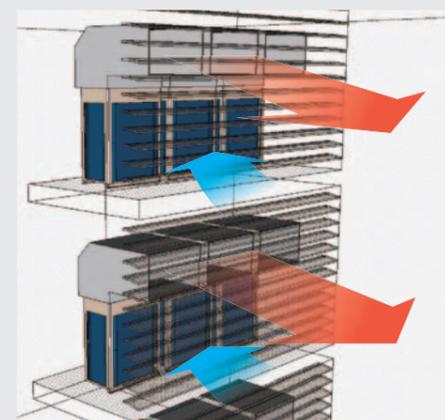
80 Pa (VR-II)
82 Pa (V-III)
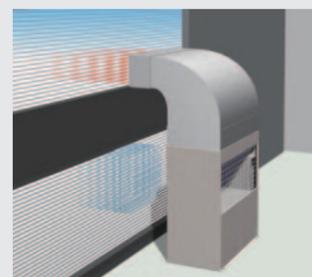
Previous model

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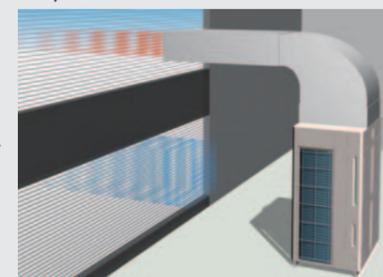
Large diameter fan and DC motor has been utilised allowing an external static pressure of up to 82Pa. This is approximately 2.6 times greater than the previous model.

High capacity connection

AIRSTAGE™ VR-II series
Heat Recovery type

8HP-48HP

Connectable indoor unit capacity range
50% to 150%

Connectable indoor unit number
up to 64

AIRSTAGE™ V-III series
Heat Pump type

8HP-48HP

Connectable indoor unit capacity range
50% to 150%

Connectable indoor unit number
up to 64

AIRSTAGE™ J-IIIL series
Heat Pump type

8HP-12HP

Connectable indoor unit capacity range
50% to 150%

Connectable indoor unit number
up to 22

AIRSTAGE™ J-III series
Heat Pump type

4HP-6HP

Connectable indoor unit capacity range
50% to 150%

Connectable indoor unit number
up to 10

AIRSTAGE™ J-IIS series
Heat Pump type

4HP-6HP

Connectable indoor unit capacity range
50% to 130%

Connectable indoor unit number
up to 8

Wide operating range

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

AIRSTAGE™ VR-II series
Heat Recovery type

(°C) 60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Cooling & Heating 21°C
Heating 21°C
-10°C
-10°C
-20°C

AIRSTAGE™ V-III series
Heat Pump type

(°C) 60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-15°C *2
-20°C

AIRSTAGE™ J-IIIL series
Heat Pump type

(°C) 60 50 40 30 20 10 0 -10 -20
Cooling 46°C
Heating 21°C
-15°C
-20°C

AIRSTAGE™ 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

AIRSTAGE™ 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

*2. Note: When a modular outdoor unit connection is used, operating range is from -5°C to 46°C in cooling.

EASY INSTALLATION
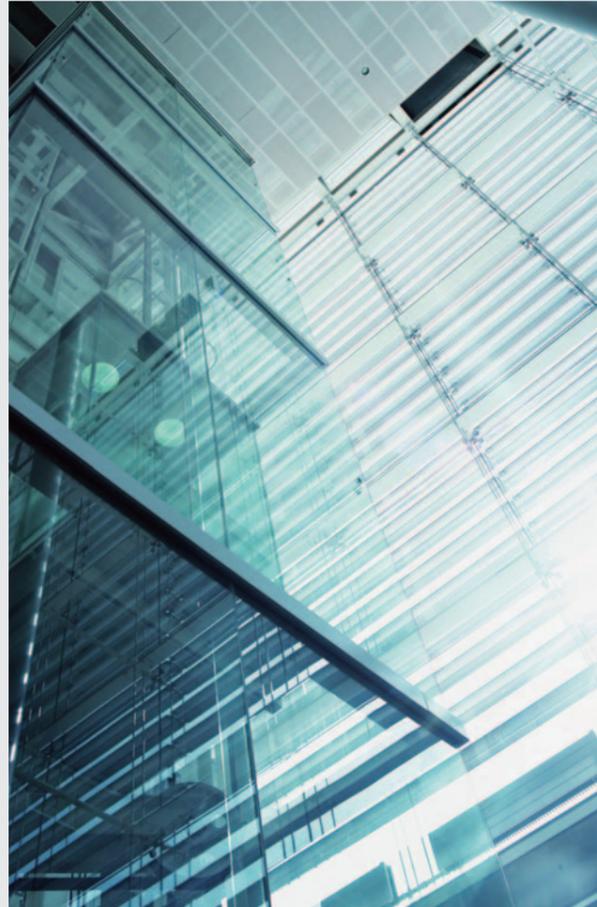
Easily transported

Easily craned using lifting belt hooks

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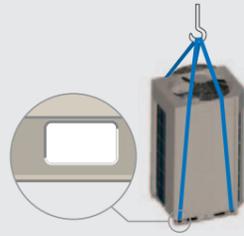
Transporting by forklift

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 improved by this new design.

Expansion of work space

Removable front panel allows easy installation
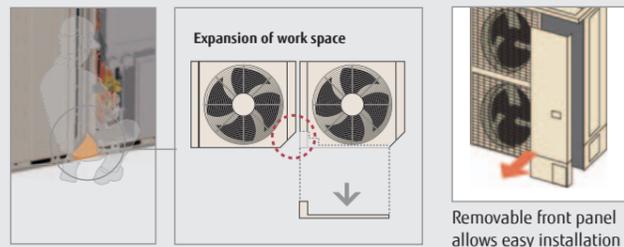
Flexible piping connection

Piping and wiring are available to the front, rear, bottom and side.

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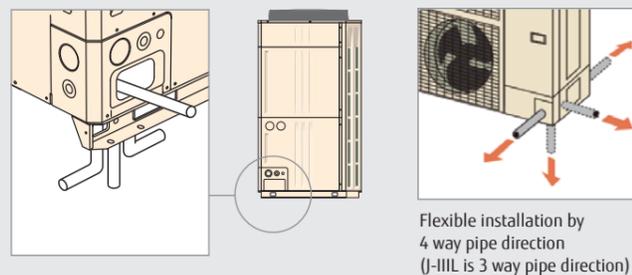
Simple wiring work

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

or

Parallel connection   Serial connection
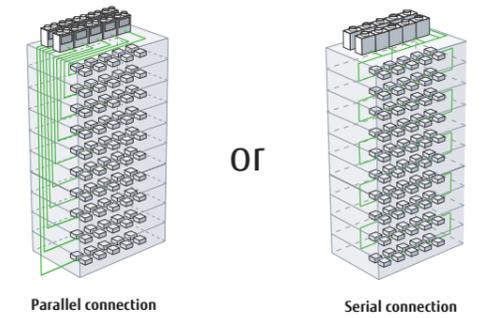
Easy evacuation using vacuum mode function

The vacuum mode function enables all expansion valves of the indoor units to be fully opened, making it easy to evacuate all the air inside pipe lines and indoor units.

← Air   ← Air

Outdoor unit

Air →   Vacuum pump
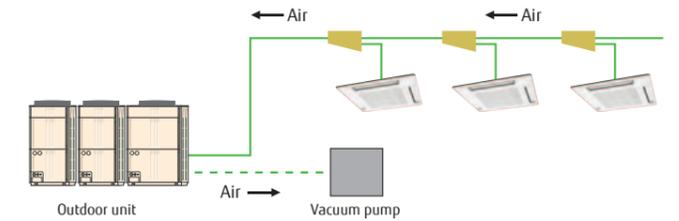
Automatic address setting

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

Automatic address setting is performed at outdoor unit

Addresses are automatically distributed from the outdoor unit

1 Signal Amplifier

RB unit 3   7   1   0

3   7   1   0

2   4   5   6

2   4   5   6

Manual address setting from indoor unit and remote controller is also possible
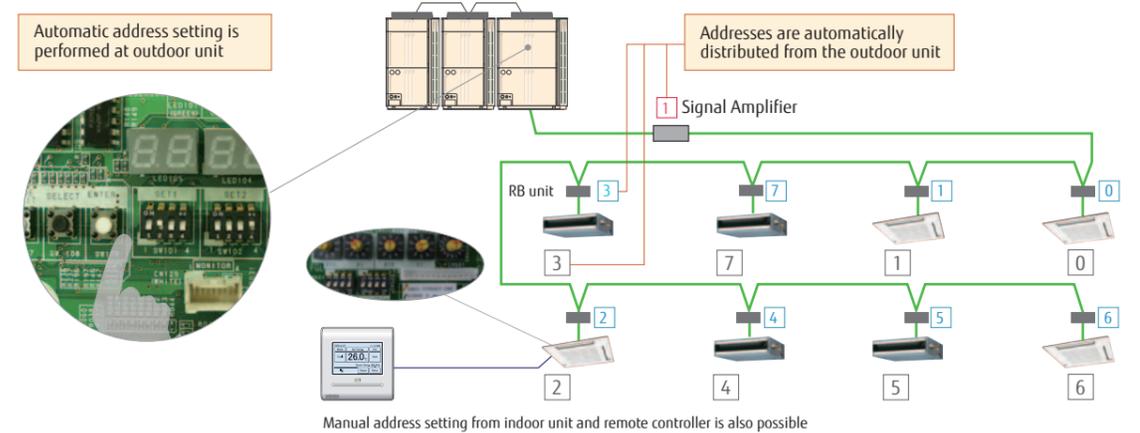
Easy commissioning using the Service Tool

The service tool can be used to check system characteristics including the refrigerant temperature, pressure and the operating status of the electronic expansion valves, making it easy to determine whether the units are functioning correctly.

EASY SERVICE & MAINTENANCE

Easy maintenance design

Self diagnosis can be performed using the LED display which makes it easy to check function setting status, refrigerant temperature, pressure, compressor operation time and other factors.

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

Movable PCB panel
Easier for maintenance work behind the PCB
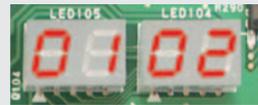
7 segment LED

• 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

Faulty unit number
(Remote controller address)
Error code

Simple Remote Controller

Remote controller address
Error code

Wired Remote Controller (Touch panel)

Error status / Error history

Error status can be checked easily by outdoor unit display

Error information

Error code

Abnormal indoor unit address

Error diagnosis using the Service Tool

• Detailed operation status and recent error history can be checked and analysed by using the Service Tool

Service Tool
UTY-ASGXZ1
Software

Outdoor unit

Transmission line

USB adaptor
(Locally purchased)

Indoor unit
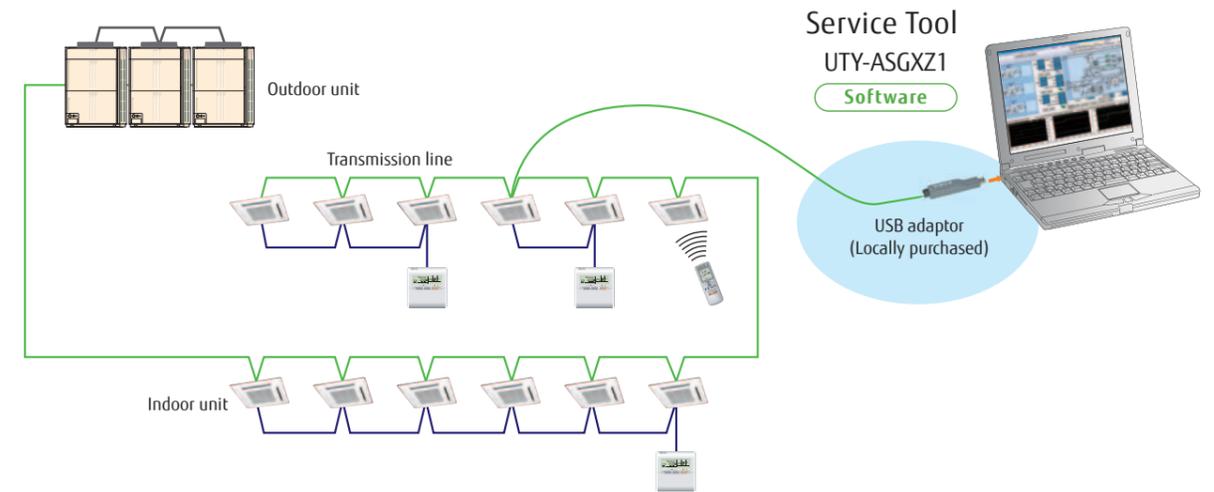
Remote monitoring

The Web Monitoring system allows you to view system operation anytime over the internet in real time.

Monitoring Side

VRF Network System Side

Outdoor unit

Transmission line

Internet
or
Public Telephone
Line

USB adaptor
(Locally purchased)

Web
Monitoring Tool
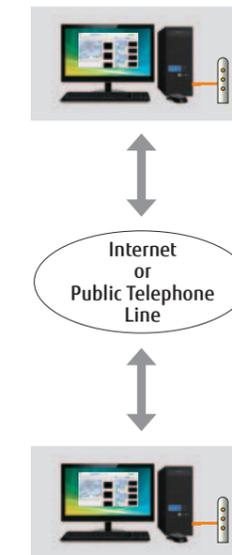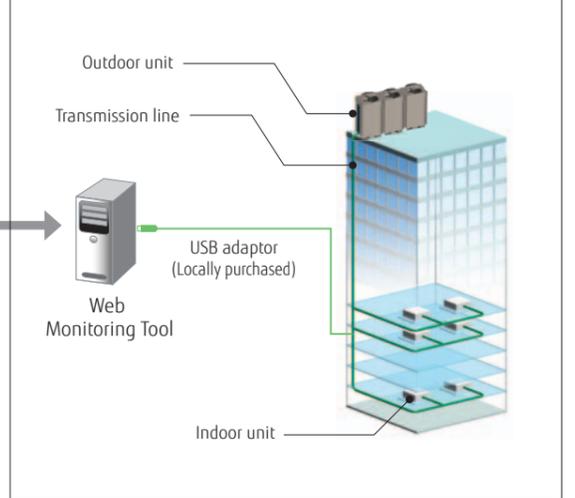
Indoor unit

AIRSTAGE™ SERIES

The 5 series of the AIRSTAGE™ range has a total of 73 outdoor models to meet the project scope or building size requirements

The AIRSTAGE™ series outdoor units have been developed with structural designs and advanced inverter technology to provide higher efficiency.

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

AIRSTAGE™ LINEUP

HEAT RECOVERY TYPE AIRSTAGE™ VR-II

HEAT PUMP TYPE AIRSTAGE™ V-III

HEAT PUMP TYPE AIRSTAGE™ J-IIIL

HEAT PUMP TYPE AIRSTAGE™ J-III

HEAT PUMP TYPE AIRSTAGE™ J-IIS

AIRSTAGE™ LINEUP

Fujitsu General's range of AIRSTAGE™ products allow installation flexibility to meet the unique size and application needs of your project.

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
kW class	12.1	14.0	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	123.0	128.0	135.0
AIRSTAGE VR-II Heat Recovery — Space Saving				AJTA72GALH	AJTA90GALH	AJT108GALH	AJT126GALH	AJT144GBLH	AJT162GALH	AJT180GALH	AJT198GALH	AJT216GBLH	AJT234GBLH	AJT252GBLH	AJT270GBLH	AJT288GBLH	AJT306GBLH	AJT324GBLH	AJT342GBLH	AJT360GBLH	AJT378GBLH	AJT396GBLH	AJT414GBLH	AJT432GBLH
High Efficiency								AJT144GALH		AJT180GALHH		AJT216GALHH	AJT234GALHH	AJT252GALHH	AJT270GALHH	AJT288GALHH	AJT306GALHH	AJT324GALHH	AJT342GALHH	AJT360GBLHH	AJT378GBLHH			
AIRSTAGE 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
High Efficiency								AJY144LALBHH		AJY180LALBHH		AJY216LALBHH	AJY234LALBHH	AJY252LALBHH	AJY270LALBHH	AJY288LALBHH	AJY306LALBHH	AJY324LALBHH	AJY342LALBHH	AJY360LALBHH	AJY378LALBHH			

	4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
AIRSTAGE J-III L Heat Pump — Space Saving				AJY072LELAH	AJY090LELAH	AJY108LELAH																		
AIRSTAGE J-III Heat Pump — High Efficiency	AJY040LBLAH	AJY045LBLAH	AJY054LBLAH																					
AIRSTAGE J-IIS Heat Pump — Space Saving	AJT040LCLAH	AJT045LCLAH	AJT054LCLAH																					

HEAT RECOVERY TYPE

AIRSTAGE™ VR-II series

- Smart and cutting edge design
- Extensive lineup from 8HP to 48HP in 2HP increments
- Connectable indoor unit capacity ratio of up to 150%

System Outline

Simultaneous cooling and heating operation using one refrigerant system

Cooling and heating can be freely selected for each indoor unit to provide simultaneous cooling and heating in rooms with large temperature differences.

Annual cooling operation

The VR-II series provide annual cooling operation functionality for spaces that require constant temperature control throughout the year.

Temperature difference control

The operation mode can be freely changed when there are large temperature differences during the day, such as between seasons.

Large Building
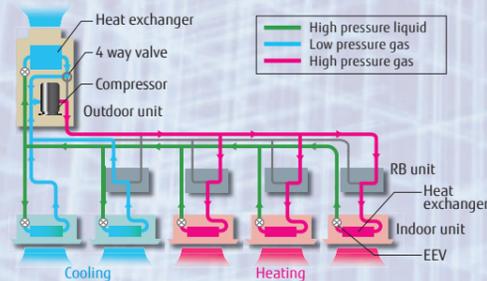
Heat exchanger
4 way valve
Compressor
Outdoor unit

High pressure liquid
Low pressure gas
High pressure gas

RB unit
Heat exchanger
Indoor unit
EEV

Cooling   Heating

Our heat recovery systems can achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

Our heat recovery systems can achieve high operating energy efficiency by drawing heat from the room to be cooled and transferring it as energy for rooms that are to be heated.

High

Heating & Cooling
Mainly Cooling   Mainly Heating

COP

Non heat recovery model

0   50   100 (%)
        Heating ratio
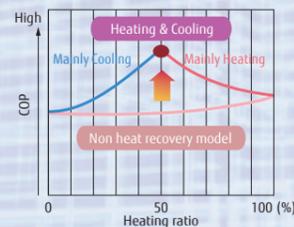
Efficiency during operation

A high COP is achieved for all combinations through our unique heat exchanger structure, high efficient DC twin compressor and our own proprietary technologies.

Space saving combination

(COP)
HP	COP
8	4.16
10	3.75
12	3.92
14	3.66
16	3.45
18	3.92
20	3.75
22	3.84
24*	3.66
26	3.56
28	3.64
30	3.55
32	3.45
34	3.69
36	3.61
38	3.67
40	3.57
42	3.52
44	3.57
46	3.51
48	3.45

Energy efficiency combination

(COP)
HP	COP
16	4.16
20	4.01
24*	4.16
26	3.99
28	4.05
30	3.92
32	3.98
34	3.87
36	3.92
38	3.82
40	3.72
42	3.64

*For 24 HP Combination

Space saving → Energy efficiency

COP 15% UP

Energy saving technology that enhances operational efficiency

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

3 phase DC fan motor
Efficiency is improved with the high efficient motor with sophisticated drive control. Additionally the DC fan motor exhibits a low noise output.

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

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

Large capacity DC inverter compressor
The large capacity high efficient DC twin rotary compressor with excellent part load capability.

4-face heat exchanger
Heat exchanger efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases the effective surface area.
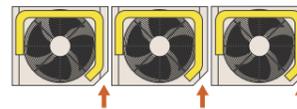
Front intake port
(corner cut air intake structure)

In multiple outdoor unit installations, the unique front intake design improves airflow into the Heat Exchanger.
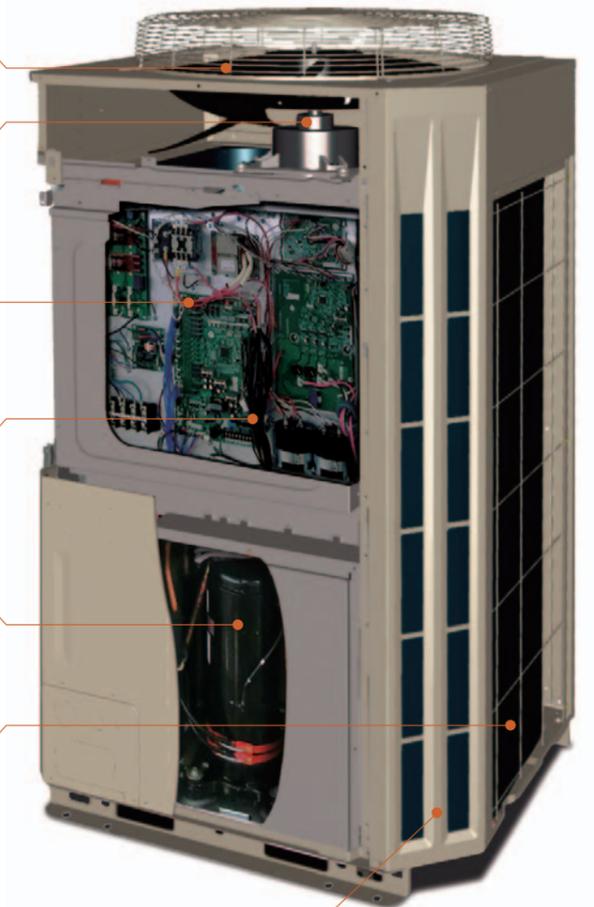
All inverter compressor

Large capacity DC inverter compressor

Large capacity high efficient DC twin rotary compressor with excellent intermediate capability.

High efficiency compressor speed control

Comfortable space with small room temperature changes and little energy loss is created by 0.1Hz steps for compressor speed control.

Capacity

0.1Hz

Inverter frequency

Flexible piping connection

Flexible refrigerant pipe work is possible through the use of various piping and RB Unit connections to match the floor layout and building structure.

Separation tube

RB Unit (Single type)

RB Unit (Multi type)

Max.3 or 8 indoor units

Max. 8 indoor units

| Single connection | Group connection | Single connection | & | Group connection | RB Unit less connection*2 |
| Individual cooling and heating | Simultaneous cooling and heating | Individual cooling and heating | Simultaneous cooling and heating | Cooling only |

Application

• The RB unit can be freely positioned between the first branch and the indoor unit.
• The maximum height difference between RB units is 15 m.
*2. RB Unit is not necessary for cooling only use.

Multiple outdoor operation control

When multiple outdoor units are connected, a sophisticated operation is performed by each compressor. Rather than running one compressor at full load and distributing refrigerant to one heat exchanger, this control method operates all compressors at part load and distributes refrigerant to all of the heat exchangers allowing for overall system efficiency to be improved.

Compressor load level

High efficient operation

Inefficient operation
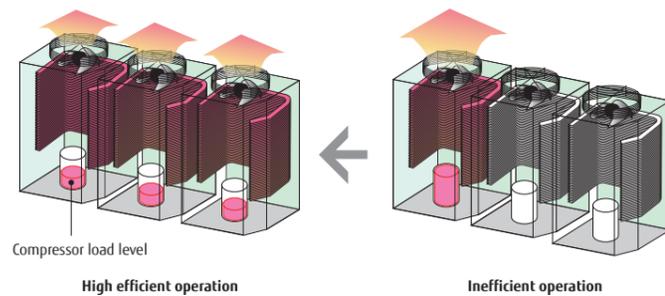
Heat exchanger refrigerant control

The heat exchanger in the outdoor unit is split into two parts (top and bottom). The efficiency of the heat exchanger has been improved by adopting an optimum refrigerant path control where the refrigerant is distributed more into the top heat exchanger as this is where there is a greater air flow intake.

Fan

Large intake airflow

Small intake airflow

Heat exchanger

Outdoor unit

High efficient refrigerant flow control

Larger refrigerant flow

EEV

Heat exchanger Distributor

Flexible installation of RB unit

Height
198mm

• Compact and slim design saves space
• A drain pipe is not required
• The control box position can be changed to meet the installation conditions

Installation is possible from either side due to the interchangeable positioning of the control box

Installation of the control box is possible on the upper-side to enable use in narrow spaces
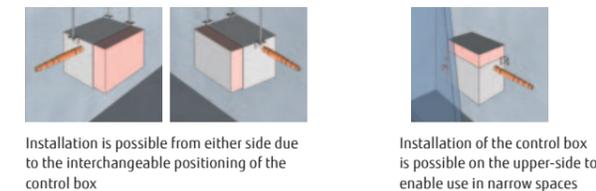
• Compact space saving design
• A drain pipe is not required
• Simple installation series connection design

RB unit (single type)

RB unit (multi type)
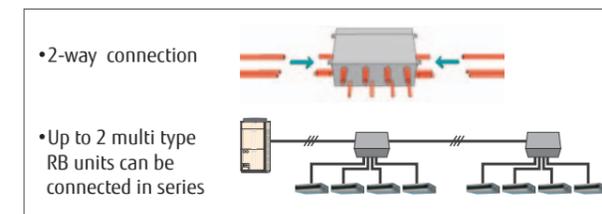
Easy maintenance in narrow spaces
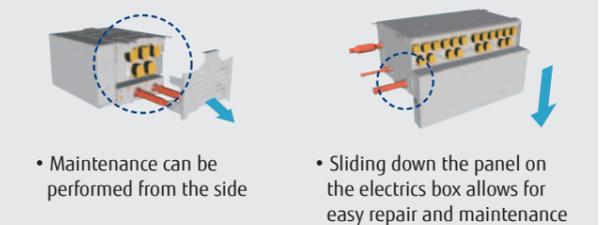
• Maintenance can be performed from the side

• Sliding down the panel on the electrics box allows for easy repair and maintenance

• Parts can be replaced easily even within narrow ceiling spaces

RB unit

Ceiling

•2-way connection

•Up to 2 multi type RB units can be connected in series
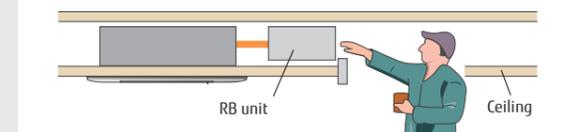
Outdoor units lineup
• Combinations other than those specified are not supported.

AIRSTAGE VR-II

Space saving combinations

22.4kW (8HP)	28.0kW (10HP)	33.5kW (12HP)	40.0kW (14HP)	45.0kW (16HP)
AJTA72GALH UNIT: AJTA72GALH	AJTA90GALH UNIT: AJTA90GALH	AJT108GALH UNIT: AJT108GALH	AJT126GALH UNIT: AJT126GALH	AJT144GBLH UNIT: AJT144GBLH
50.4kW (18HP)	56.0W (20HP)	61.5kW (22HP)	67.4kW (24HP)	73.0kW (26HP)
AJT162GALH UNIT: AJTA90/A72GALH	AJT180GALH UNIT: AJTA90/A90GALH	AJT198GALH UNIT: AJT108/A90GALH	AJT216GBLH UNIT: AJT144GBLH/A72GALH	AJT234GBLH UNIT: AJT144GBLH/A90GALH
78.5kW (28HP)	85.0kW (30HP)	90.0kW (32HP)	95.4kW (34HP)	101.0kW (36HP)
AJT252GBLH UNIT: AJT144GBLH/108GALH	AJT270GBLH UNIT: AJT144GBLH/126GALH	AJT288GBLH UNIT: AJT144/144GBLH	AJT306GBLH UNIT: AJT144GBLH/A90/A72GALH	AJT324GBLH UNIT: AJT144GBLH/A90/A90GALH
106.5kW (38HP)	112.4kW (40HP)	118.0kW (42HP)	123.5kW (44HP)	130.0kW (46HP)
AJT342GBLH UNIT: AJT144GBLH/108/A90GALH	AJT360GBLH UNIT: AJT144/144GBLH/A72GALH	AJT378GBLH UNIT: AJT144/144GBLH/A90GALH	AJT396GBLH UNIT: AJT144/144GBLH/108GALH	AJT414GBLH UNIT: AJT144/144GBLH/126GALH
135.0kW (48HP)				
AJT432GBLH UNIT: AJT144/144/144GBLH				

Energy efficiency combinations

44.8kW (16HP)	55.9kW (20HP)	67.2kW (24HP)	72.8kW (26HP)	78.3kW (28HP)
AJT144GALH UNIT: AJTA72/A72GALH	AJT180GALHH UNIT: AJT108/A72GALH	AJT216GALHH UNIT: AJTA72/A72/A72GALH	AJT234GALHH UNIT: AJTA90/A72/A72GALH	AJT252GALHH UNIT: AJT108/A72/A72GALH
83.9kW (30HP)	89.4kW (32HP)	95.0kW (34HP)	100.5kW (36HP)	107.0kW (38HP)
AJT270GALHH UNIT: AJT108/A90/A72GALH	AJT288GALHH UNIT: AJT108/108/A72GALH	AJT306GALHH UNIT: AJT108/108/A90GALH	AJT324GALHH UNIT: AJT108/108/108GALH	AJT342GALHH UNIT: AJT126/108/108GALH
112.0kW (40HP)	118.5kW (42HP)			
AJT360GBLHH UNIT: AJT144GBLH/108/108GALH	AJT378GBLHH UNIT: AJT144GBLH/126/108GALH			

Dimensions

8 / 10HP: AJTA72GALH / AJTA90GALH (Unit: mm)
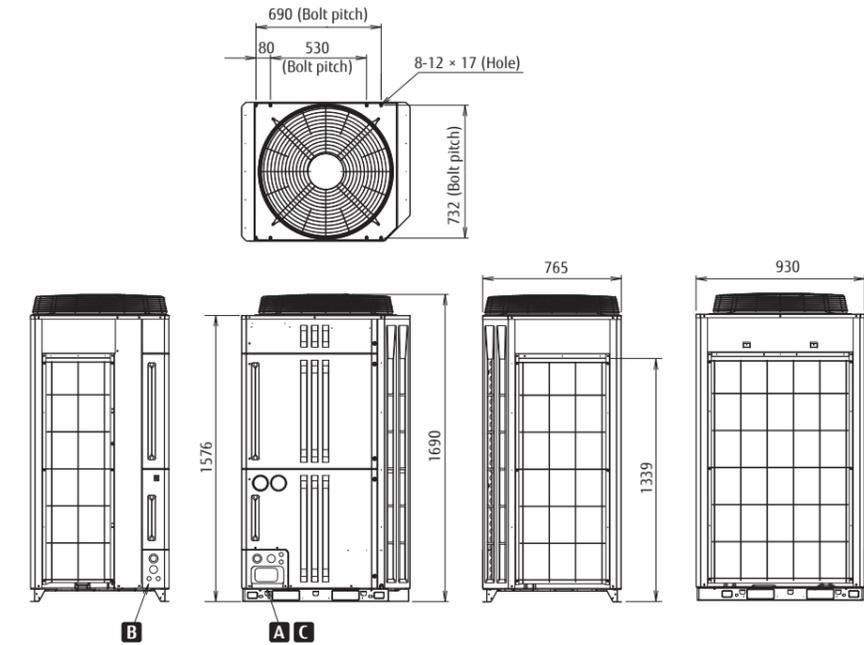
12 / 14 / 16HP: AJT108GALH / AJT126GALH / AJT144GBLH (Unit: mm)

A Front side knockout position
B Left side knockout position
C Bottom side knockout position

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
Model name			AJTA72GALH	AJTA90GALH	AJT108GALH	AJT126GALH	AJT144GBLH	AJT162GALH	AJT180GALH	AJT198GALH	AJT216GBLH	AJT234GBLH	AJT252GBLH	AJT270GBLH	AJT288GBLH	AJT306GBLH	AJT324GBLH	AJT342GBLH	AJT360GBLH	AJT378GBLH	AJT396GBLH	AJT414GBLH	AJT432GBLH
Unit 1			AJTA72GALH	AJTA90GALH	AJT108GALH	AJT126GALH	AJT144GBLH	AJTA90GALH	AJTA90GALH	AJT108GALH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH
Unit 2								AJTA72GALH	AJTA90GALH	AJTA90GALH	AJTA72GALH	AJTA90GALH	AJT108GALH	AJT126GALH	AJT144GBLH	AJTA90GALH	AJTA90GALH	AJT108GALH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH	AJT144GBLH
Unit 3																AJTA72GALH	AJTA90GALH	AJTA90GALH	AJTA72GALH	AJTA90GALH	AJT108GALH	AJT126GALH	AJT144GBLH
Maximum connectable indoor unit*1			15	16	17	21	24	27	30	32	36	39	42	45	48	51	54	57	60	63	64	64	64
Indoor unit connectable capacity	Cooling	kW	11.2 to 33.6	14.0 to 42.0	16.8 to 50.2	20.0 to 60.0	22.5 to 67.5	25.2 to 75.6	28.0 to 84.0	30.8 to 92.2	33.7 to 101.1	36.5 to 109.5	39.3 to 117.7	42.5 to 127.5	45.0 to 135.0	47.7 to 143.1	50.5 to 151.5	53.3 to 159.7	56.2 to 168.6	59.0 to 177.0	61.8 to 185.2	65.0 to 195.0	67.5 to 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	50.4	56.0	61.5	67.4	73.0	78.5	85.0	90.0	95.4	101.0	106.5	112.4	118.0	123.5	130.0	135.0
	Heating	kW	25.0	31.5	37.5	45.0	48.5	56.5	63.0	69.0	73.5	80.0	86.0	93.5	97.0	105.0	111.5	117.5	122.0	128.5	134.5	142.0	145.5
Input power	Cooling	kW	6.14	8.37	10.04	13.00	14.48	14.51	16.74	18.41	20.62	22.85	24.52	27.48	28.96	28.99	31.22	32.89	35.10	37.33	39.00	41.96	43.44
	Heating	kW	6.01	8.41	9.57	12.31	14.06	14.42	16.82	17.98	20.07	22.47	23.63	26.37	28.12	28.48	30.88	32.04	34.13	36.53	37.69	40.43	42.18
EER	Cooling	W/W	3.65	3.35	3.34	3.08	3.11	3.47	3.35	3.34	3.27	3.19	3.20	3.09	3.11	3.29	3.24	3.24	3.20	3.16	3.17	3.10	3.11
COP	Heating		4.16	3.75	3.92	3.66	3.45	3.92	3.75	3.84	3.66	3.56	3.64	3.55	3.45	3.69	3.61	3.67	3.57	3.52	3.57	3.51	3.45
Air flow rate	High	m³/h (l/s)	11,100 (3,084)	11,100 (3,084)	13,000 (3,611)	13,000 (3,611)	13,000 (3,611)	11,100×2 (3,084×2)	11,100×2 (3,084×2)	13,000+11,100 (3,611+3,084)	13,000+11,100 (3,611+3,084)	13,000+11,100 (3,611+3,084)	13,000×2 (3,611×2)	13,000×2 (3,611×2)	13,000×2 (3,611×2)	13,000+11,100 (3,611+3,084×2)	13,000+11,100 (3,611+3,084×2)	13,000×2+11,100 (3,611×2+3,084)	13,000×2+11,100 (3,611×2+3,084)	13,000×2+11,100 (3,611×2+3,084)	13,000×3 (3,611×3)	13,000×3 (3,611×3)	13,000×3 (3,611×3)
Sound pressure level*2 / Power level	Cooling	dB (A)	56	58	57	61	61	60	61	61	62	63	62	64	64	64	64	64	64	65	65	66	66
	Heating		58	59	59	61	64	62	62	62	65	65	65	66	67	66	66	66	68	68	68	68	69
Maximum external static pressure		Pa	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Compressor motor output		kW	7.5	7.5	11.0	11.0	11.0	7.5×2	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	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
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
	Width	mm	930	930	1,240	1,240	1,240	930×2	930×2	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	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
Weight		kg	262	262	286	286	286	262×2	262×2	286+262	286+262	286+262	286×2	286×2	286×2	286×2+262	286×2+262	286×2+262	286×2+262	286×2+262	286×3	286×3	286×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge	kg	11.8	11.8	11.8	11.8	11.8	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	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
	Discharge Gas	mm	15.88	19.05	19.05	22.22	22.22	22.22	22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92
	Suction 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
Operation range	Cooling	°C	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 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
	Cooling/Heating		-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21

Energy efficiency combinations

Rating capacity range		HP	16	22	24	26	28	30	32	34	36	38	40	42
Model name			AJT144GALH	AJT180GALHH	AJT216GALHH	AJT234GALHH	AJT252GALHH	AJT270GALHH	AJT288GALHH	AJT306GALHH	AJT324GALHH	AJT342GALHH	AJT360GBLHH	AJT378GBLHH
Unit 1			AJTA72GALH	AJT108GALH	AJTA72GALH	AJTA90GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT126GALH	AJT144GBLH	AJT144GBLH
Unit 2			AJTA72GALH	AJTA72GALH	AJTA72GALH	AJTA72GALH	AJT72GALH	AJTA90GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT108GALH	AJT126GALH
Unit 3					AJTA72GALH	AJTA72GALH	AJTA72GALH	AJTA72GALH	AJTA72GALH	AJTA72GALH	AJTA90GALH	AJT108GALH	AJT108GALH	AJT108GALH
Maximum connectable indoor unit*1			24	29	36	39	41	44	47	50	53	57	60	63
Indoor unit connectable capacity	Cooling	kW	22.4 to 67.2	28.0 to 83.8	33.6 to 100.8	36.4 to 109.2	39.2 to 117.4	42.0 to 125.8	44.7 to 134.1	47.5 to 142.5	50.3 to 150.7	53.5 to 160.5	56.0 to 168.0	59.3 to 177.7
Power source			3-phase 4 wire, 400 V, 50Hz								3-phase 4 wire, 400 V, 50Hz			
Capacity	Cooling	kW	44.8	55.9	67.2	72.8	78.3	83.9	89.4	95.0	100.5	107.0	112.0	118.5
	Heating	kW	50.0	62.5	75.0	81.5	87.5	94.0	100.0	106.5	112.5	120.0	123.5	131.0
Input power	Cooling	kW	12.28	16.18	18.42	20.65	22.32	24.55	26.22	28.45	30.12	33.08	34.56	37.52
	Heating	kW	12.02	15.58	18.03	20.43	21.59	23.99	25.15	27.55	28.71	31.45	33.20	35.94
EER	Cooling	W/W	3.65	3.45	3.65	3.53	3.51	3.42	3.41	3.34	3.34	3.23	3.24	3.16
COP	Heating		4.16	4.01	4.16	3.99	4.05	3.92	3.98	3.87	3.92	3.82	3.72	3.64
Air flow rate	High	m³/h (l/s)	11,100×2 (3,084×2)	13,000+11,100 (3,611+3,084)	11,100×3 (3,084×3)	11,100×3 (3,084×3)	13,000+11,100×2 (3,611+3,084×2)	13,000+11,100×2 (3,611+3,084×2)	13,000×2+11,100 (3,611×2+3,084)	13,000×2+11,100 (3,611×2+3,084)	13,000×3 (3,611×3)	13,000×3 (3,611×3)	13,000×3 (3,611×3)	13,000×3 (3,611×3)
Sound pressure level*2 / Power level	Cooling	dB (A)	59	60	61	62	61	62	61	62	62	64	64	65
	Heating		61	62	63	63	63	63	63	64	64	65	66	67
Maximum external static pressure		Pa	80	80	80	80	80	80	80	80	80	80	80	80
Compressor motor output		kW	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
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
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
	Width	mm	930×2	1,240+930	930×3	930×930×2	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
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	262×2	286+262	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×3	286×3	286×3	286×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge	kg	11.8×2	11.8×2	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	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	28.58	28.58	34.92	34.92	34.92
	Suction Gas	mm	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27
Operation range	Cooling	°C	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 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
	Cooling/Heating		-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 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: 7.5m; Height difference between outdoor unit and indoor unit: 0m.

*1: Minimum connectable indoor unit number is 2.
*2: These are the measured values in the manufacturer's anechoic chamber.
Because of the surrounding sound environment, the sound levels measured in
actual installation conditions might be higher than the specified values here.

HEAT PUMP TYPE

NEW **AIRSTAGE™ V-III** series

- Smart and cutting edge design
- Extensive lineup from 8HP to 48HP in 2HP increments
- Connectable indoor unit capacity ratio of up to 150%

System Outline

Excellent energy saving
Our heat pump inverter type systems achieve energy efficient operation for both cooling or heating operation with the use of inverter technology.

### High design flexibility for various building requirements
High rise building air conditioning design and installation flexibility is achieved with concentrated roof top or individual plant area installation made possible by flexible piping options and the high static pressure design.

Easy installation and maintenance
The flexible communication wiring method and piping connections makes installation and maintenance easy.
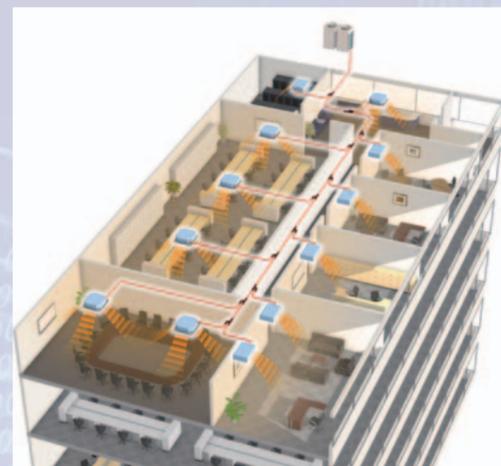
System configuration example
- This system is used for medium and large sized buildings. Connecting a combination of outdoor units makes it possible to create a high-capacity system.
- This example shows the connection of multiple indoor units using separation tubes and headers.

Outdoor unit
Separation tube
Header
Liquid pipe
Gas pipe
Indoor unit
Indoor unit
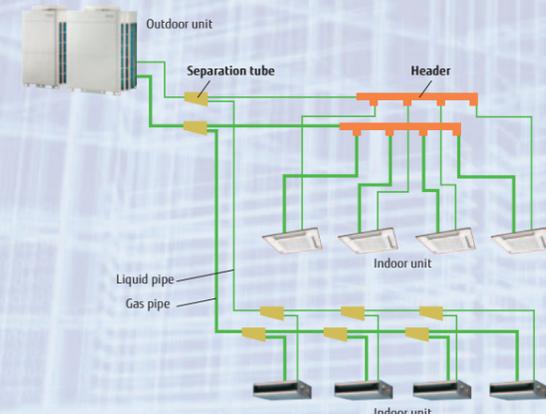
Efficiency during operation

A high COP is realised for all combinations by our unique heat exchanger structure, high efficient DC twin compressor along with additional proprietary technologies.

Space saving combination

(COP)
HP	8	10	12	14	16	18	20	22	24*	26	28	30	32	34	36	38	40	42	44	46	48
COP	4.84	4.35	4.34	4.03	3.67	4.55	4.34	4.28	4.15	3.90	4.03	3.83	3.67	4.21	4.02	4.11	3.95	3.81	3.89	3.77	3.67

Energy efficiency combination

(COP)
HP	16	20	24*	26	28	30	32	34	36	38	40	42
COP	4.84	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03

For 24 HP Combination
Space saving → Energy efficiency
COP 15% UP

Energy saving technology that enhances operational efficiency

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

3 phase DC fan motor
Efficiency is improved with the high efficient motor with sophisticated drive control. Additionally the DC fan motor exhibits a low noise output.

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

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

Large capacity ALL DC inverter compressor
The large capacity high efficient DC twin rotary compressor with 0.1Hz steps compressor speed control
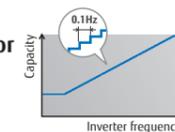
0.1Hz
Capacity
Inverter frequency

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

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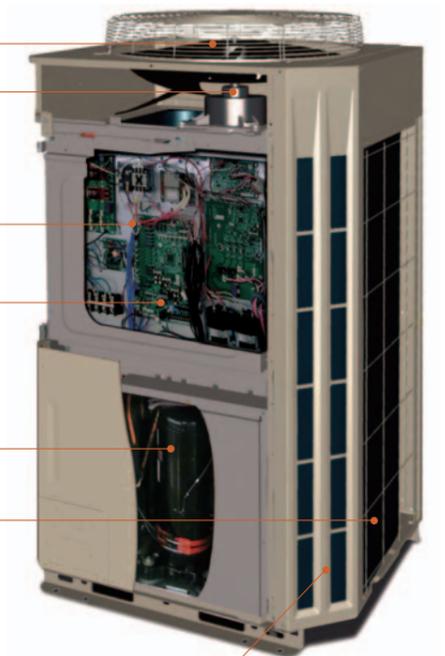
Advanced energy saving control

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 efficiency operation   Inefficient operation
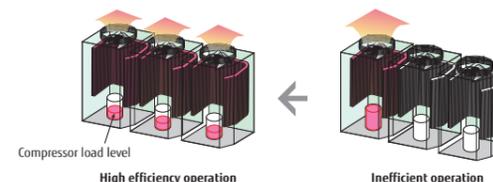
Heat exchanger refrigerant control

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

Fan
Large intake airflow
Small intake airflow
Heat exchanger
Outdoor unit

High efficient refrigerant flow control
Larger refrigerant flow
EEV
Heat exchanger
Distributor

Space saving combinations

22.4kW (8HP)	28.0kW (10HP)	33.5kW (12HP)	40.0kW (14HP)	45.0kW (16HP)
AJY072LALBH UNIT: AJY072LALBH	AJY090LALBH UNIT: AJY090LALBH	AJY108LALBH UNIT: AJY108LALBH	AJY126LALBH UNIT: AJY126LALBH	AJY144LALBH UNIT: AJY144LALBH
50.4kW (18HP)	56.0W (20HP)	62.4kW (22HP)	68.0kW (24HP)	73.0kW (26HP)
AJY162LALBH UNIT: AJY090/072LALBH	AJY180LALBH UNIT: AJY090/090LALBH	AJY198LALBH UNIT: AJY126/072LALBH	AJY216LALBH UNIT: AJY126/090LALBH	AJY234LALBH UNIT: AJY144/090LALBH
80.0kW (28HP)	85.0kW (30HP)	90.0kW (32HP)	96.0kW (34HP)	101.0kW (36HP)
AJY252LALBH UNIT: AJY126/126LALBH	AJY270LALBH UNIT: AJY144/126LALBH	AJY288LALBH UNIT: AJY144/144LALBH	AJY306LALBH UNIT: AJY126/090/090LALBH	AJY324LALBH UNIT: AJY144/090/090LALBH
108.0kW (38HP)	113.0kW (40HP)	118.0kW (42HP)	125.0kW (44HP)	130.0kW (46HP)
AJY342LALBH UNIT: AJY126/126/090LALBH	AJY360LALBH UNIT: AJY144/126/090LALBH	AJY378LALBH UNIT: AJY144/144/090LALBH	AJY396LALBH UNIT: AJY144/126/126LALBH	AJY414LALBH UNIT: AJY144/144/126LALBH
135.0kW (48HP)				
AJY432LALBH UNIT: AJY144/144/144LALBH				

Energy efficiency combinations

44.8kW (16HP)	55.9kW (20HP)	67.2kW (24HP)	72.8kW (26HP)	78.3kW (28HP)
AJY144LALBHH UNIT: AJY072/072LALBH	AJY180LALBHH UNIT: AJY108/072LALBH	AJY216LALBHH UNIT: AJY072/072/072LALBH	AJY234LALBHH UNIT: AJY090/072/072LALBH	AJY252LALBHH UNIT: AJY108/072/072LALBH
84.8kW (30HP)	89.4kW (32HP)	95.9kW (34HP)	100.5kW (36HP)	107.0kW (38HP)
AJY270LALBHH UNIT: AJY126/072/072LALBH	AJY288LALBHH UNIT: AJY108/108/072LALBH	AJY306LALBHH UNIT: AJY126/108/072LALBH	AJY324LALBHH UNIT: AJY108/108/108LALBH	AJY342LALBHH UNIT: AJY126/108/108LALBH
113.5kW (40HP)	112.0kW (42HP)			
AJY360LALBHH UNIT: AJY126/126/108LALBH	AJY378LALBHH UNIT: AJY126/126/126LALBH			

Dimensions

8 / 10HP: AJY072LALBH / AJY090LALBH   (Unit: mm)

690 (Bolt pitch)
80 530 (Bolt pitch)
8-12 × 17 (Hole)
732 (Bolt pitch)
765   930
1576   1690   1339

B   A C
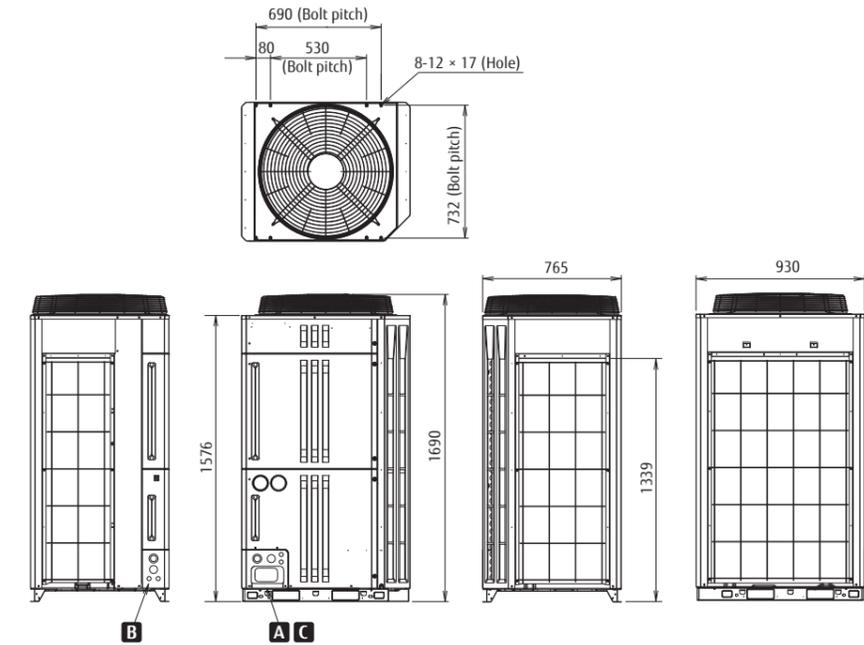
12 / 14 / 16HP: AJY108LALBH / AJY126LALBH / AJY144LALBH   (Unit: mm)

1000 (Bolt pitch)
80 840 (Bolt pitch)
8-12×7 (Hole)
732 (Bolt pitch)
765   1240
1690

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
Ø 22.2 Transmission cable port
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

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
Model name			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY162LALBH	AJY180LALBH	AJY198LALBH	AJY216LALBH	AJY234LALBH	AJY252LALBH	AJY270LALBH	AJY288LALBH	AJY306LALBH	AJY324LALBH	AJY342LALBH	AJY360LALBH	AJY378LALBH	AJY396LALBH	AJY414LALBH	AJY432LALBH
Unit 1			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY090LALBH	AJY090LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH	AJY126LALBH	AJY144LALBH	AJY144LALBH	AJY126LALBH	AJY144LALBH	AJY126LALBH	AJY144LALBH	AJY126LALBH	AJY144LALBH	AJY144LALBH	AJY144LALBH
Unit 2								AJY072LALBH	AJY090LALBH	AJY072LALBH	AJY090LALBH	AJY090LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH	AJY090LALBH	AJY090LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH	AJY126LALBH	AJY144LALBH	AJY144LALBH
Unit 3																AJY090LALBH	AJY090LALBH	AJY090LALBH	AJY090LALBH	AJY090LALBH	AJY126LALBH	AJY126LALBH	AJY144LALBH
Maximum connectable indoor unit*1			15	16	17	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	64	64	64
Indoor unit connectable capacity	Cooling	kW	11.2 to 33.6	14.0 to 42.0	16.8 to 50.2	20.0 to 60.0	22.5 to 67.5	25.2 to 75.6	28.0 to 84.0	31.2 to 93.6	34.0 to 102.0	36.5 to 109.5	40.0 to 120.0	42.5 to 127.5	45.0 to 135.0	48.0 to 144.0	50.5 to 151.5	54.0 to 162.0	56.5 to 169.5	59.0 to 177.0	62.5 to 187.5	65.0 to 195.0	67.5 to 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	50.4	56.0	62.4	68.0	73.0	80.0	85.0	90.0	96.0	101.0	108.0	113.0	118.0	125.0	130.0	135.0
	Heating	kW	25.0	31.5	37.5	45.0	48.5	56.5	63.0	70.0	76.5	81.5	90.0	95.0	100.0	108.0	113.0	121.5	126.5	131.5	140.0	145.0	150.0
Input power	Cooling	kW	5.20	7.28	8.96	10.96	14.48	12.48	14.56	16.16	18.24	20.29	21.92	23.97	26.02	25.52	27.57	29.20	31.25	33.30	34.93	36.98	39.03
	Heating	kW	5.17	7.25	8.65	11.17	14.06	12.42	14.50	16.34	18.42	20.88	22.34	24.80	27.26	25.67	28.13	29.59	32.05	34.51	35.97	38.43	40.89
EER	Cooling	W/W	4.31	3.85	3.74	3.65	3.11	4.04	3.85	3.86	3.73	3.60	3.65	3.55	3.46	3.76	3.66	3.70	3.62	3.54	3.58	3.52	3.46
COP	Heating	W/W	4.84	4.35	4.34	4.03	3.45	4.55	4.34	4.28	4.15	3.90	4.03	3.83	3.67	4.21	4.02	4.11	3.95	3.81	3.89	3.77	3.67
Air flow rate	High	m³/h (l/s)	11,100 (3,084)	11,100 (3,084)	13,000 (3,611)	13,000 (3,611)	13,700 (3,806)	11,100×2 (3,084×2)	11,100×2 (3,084×2)	13,000+11,100 (3,611+3,084)	13,000+11,100 (3,611+3,084)	13,700+11,100 (3,806+3,084)	13,000×2 (3,611×2)	13,700+13,000 (3,806+3,611)	13,700×2 (3,806×2)	13,000+11,100×2 (3,611+3,084×2)	13,700+11,100×2 (3,806+3,084×2)	13,000×2+11,100 (3,611×2+3,084)	13,700+13,000+11,100 (3,806+3,611+3,084)	13,700×2+11,100 (3,806×2+3,084)	13,700+13,000×2 (3,806+3,611×2)	13,700×2+13,000 (3,806×2+3,611)	13,700×3 (3,806×3)
Sound pressure level*2 / Power level	Cooling	dB (A)	56	58	57	60	62	60	61	61	62	63	63	64	65	64	65	64	65	66	66	66	67
	Heating	dB (A)	58	59	60	62	64	62	62	63	64	65	65	66	67	65	66	66	67	68	68	68	69
Maximum external static pressure		Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	7.5	7.5	11.0	11.0	11.0	7.5×2	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	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
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
	Width	mm	930	930	1,240	1,240	1,240	930×2	930×2	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240+930×2	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
	Depth	mm	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	252×2	252×2	275+252	275+252	275+252	275×2	275×2	275×2	275+252×2	275+252×2	275+252×2	275×2+252	275×2+252	275×3	275×3	275×3
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge	kg	11.7	11.7	11.8	11.8	11.8	11.7×2	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Suction Gas	mm	22.22	22.22	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation range	Cooling	°C	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 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	°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

Energy efficiency combinations

Rating capacity range		HP	16	22	24	26	28	30	32	34	36	38	40	42
Model name			AJY144LALBHH	AJY180LALBHH	AJY216LALBHH	AJY234LALBHH	AJY252LALBHH	AJY270LALBHH	AJY288LALBHH	AJY306LALBHH	AJY324LALBHH	AJY342LALBHH	AJY360LALBHH	AJY378LALBHH
Unit 1			AJY072LALBH	AJY108LALBH	AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY108LALBH	AJY126LALBH	AJY108LALBH	AJY126LALBH	AJY126LALBH	AJY126LALBH
Unit 2			AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY126LALBH	AJY126LALBH
Unit 3					AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY072LALBH	AJY108LALBH	AJY108LALBH	AJY108LALBH	AJY126LALBH
Maximum connectable indoor unit*1			24	29	36	39	41	45	47	51	53	57	60	64
Indoor unit connectable capacity	Cooling	kW	22.4 to 67.2	28.0 to 83.8	33.6 to 100.8	36.4 to 109.2	39.2 to 117.4	42.4 to 127.2	44.7 to 134.1	48.0 to 143.8	50.3 to 150.7	53.5 to 160.5	56.8 to 170.2	60.0 to 180.0
Power source			3-phase 4 wire, 400 V, 50Hz →							3-phase 4 wire, 400 V, 50Hz →				
Capacity	Cooling	kW	44.8	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0
	Heating	kW	50.0	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0
Input power	Cooling	kW	10.40	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88
	Heating	kW	10.34	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51
EER	Cooling	W/W	4.31	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65
COP	Heating	W/W	4.84	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03
Air flow rate	High	m³/h (l/s)	11,100×2 (3,084×2)	13,000+11,100 (3,611+3,084)	11,100×3 (3,084×3)	11,100×3 (3,084×3)	13,000+11,100×2 (3,611+3,084×2)	13,000+11,100×2 (3,611+3,084×2)	13,000×2+11,100 (3,611×2+3,084)	13,000×2+11,100 (3,611×2+3,084)	13,000×3 (3,611×3)	13,000×3 (3,611×3)	13,000×3 (3,611×3)	13,000×3 (3,611×3)
Sound pressure level*2 / Power level	Cooling	dB (A)	59	60	61	62	61	63	61	63	64	64	64	65
	Heating	dB (A)	61	62	63	63	64	65	64	65	66	66	66	67
Maximum external static pressure		Pa	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	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
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
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
	Width	mm	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
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	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
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Charge	kg	11.7×2	11.8+11.7	11.7×3	11.7×3	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Suction Gas	mm	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27
Operation 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
	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

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

*1: Minimum connectable indoor unit number is 2.
    However ARXC72 and ARXC90 can be used as a one to one 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

N E W **AIRSTAGE™ 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 design and low noise level enables the units to be installed in various locations with restricted and/or limited spaces such as mechanical rooms and/or rooftops.

Small room application
Up to 22 indoor units can be connected due to the optimum heat exchanger structure. The J-IIIL series offers flexibility in design, particularly in instances where there are various small rooms present.

Quiet design
Through unit design and innovation we have developed a system that has low noise operation, whilst maintaining a comfortable environment. This potentially allows installation of the units to various places without special sound prevention work.

Small Office

System configuration example
- This system is typically used for small and medium-sized buildings
- This example shows the connection of multiple indoor units using separation tubes and headers

Outdoor unit

Separation tube   Header

Liquid pipe
Gas pipe
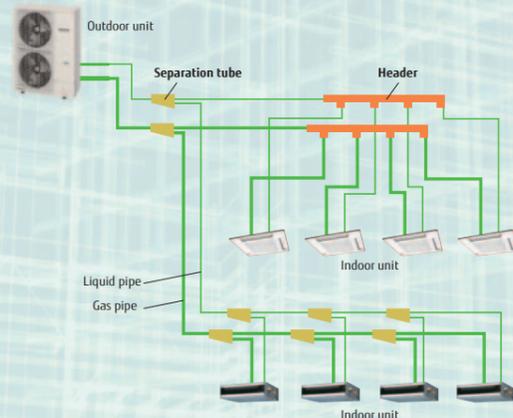
Indoor unit

Indoor unit

Compact Design

This model is more compact than the conventional 12HP comparable outdoor unit. Discreet installation is available even on the roof top..

Model / 12HP class

Height difference
1,428mm
▲16%
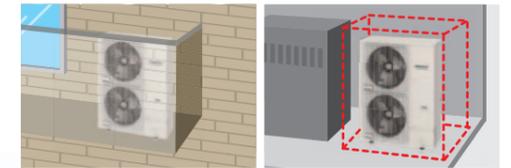
Space area
0.71m²
▲27%

Current model

AIRSTAGE J-IIIL

Advanced high efficiency technology

⌀570mm

Large propeller fan
The high efficiency and the low sound operation is realised by the reduction of draft loss enabled by the Fujitsu General's blade design and a large diameter propeller fan.

DC fan motor
The outdoor unit utilises a miniaturised, high efficiency, multi-stage DC fan motor.
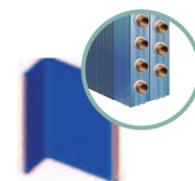
Large heat exchanger
Heat exchanger performance is substantially improved by the mounting of a 2-row large heat exchanger.

DC inverter control
Efficiency is improved through the use of a new active filter module.

Subcool heat exchanger
Cooling performance is improved by utilising a dual tube heat exchanger.

Pressure

effect

Cooling performance improved

Enthalpy
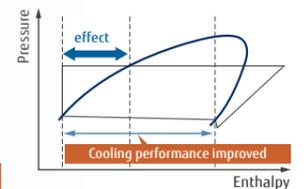
15-120 rps

Scroll compressor
The scroll compressor has a wide range of rotational frequencies from 15 to 120 rps. Fujitsu General's unique sensorless sine wave control method enables smooth control of the input power into the motor contributing to the improvement of the energy efficiency operating characteristics and the low sound operation.

AIRSTAGE J-IIIL

Long piping capability

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 400m.
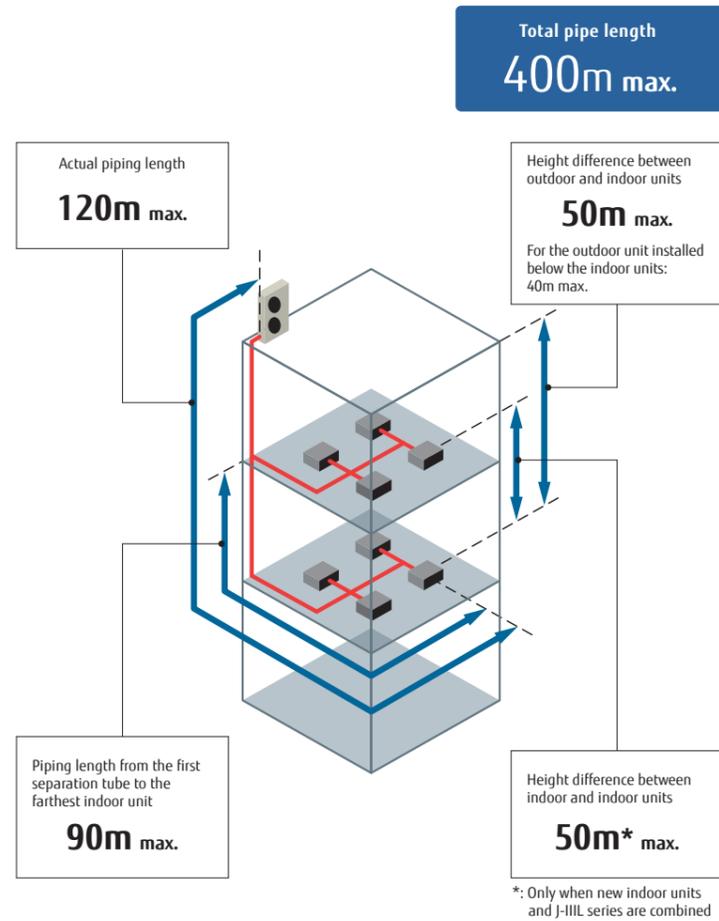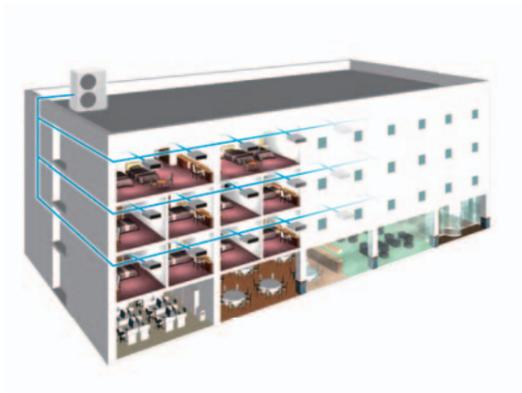
Up to 22 connectable units

A new outdoor unit with the optimum heat exchanger structure enables the connection of up to 22 indoor units.

Total pipe length
400m max.

Actual piping length
120m max.

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

Piping length from the first separation tube to the farthest indoor unit
90m max.

Height difference between indoor and indoor units
50m* max.

*: Only when new indoor units and J-IIIL series are combined

High static pressure

External static pressure is available up to 30 Pa. (only 12HP)

30 Pa

Low noise characteristics

Highly suited to densely populated areas due to the low operating sound.

Sound power level

66 dB(A)
(8 HP)

AIRSTAGE J-IIIL

77 dB(A)

▲ **11 dB(A)**

Current model (8HP)
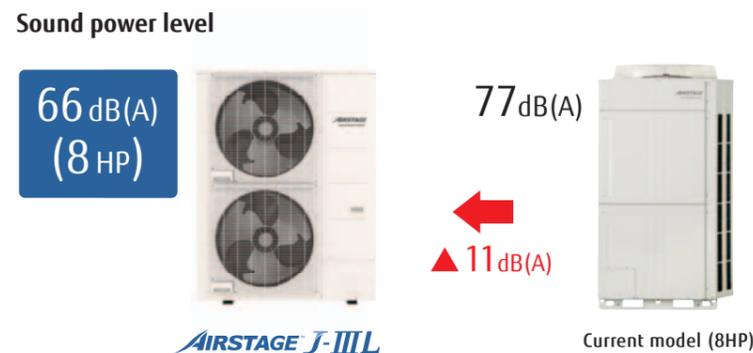
Specifications

Rating capacity range		HP	8	10	12
Model name			AJY072LELAH	AJY090LELAH	AJY108LELAH
Maximum connectable indoor units			1-15	1-19	1-22
Power source			3-phase, ~400V, 50Hz		
Capacity	Cooling	kW	22.4	28.0	33.5
	Nominal heating		22.4	28.0	33.5
	Max heating		25.0	31.5	37.5
Input power	Cooling	kW	6.30	8.59	10.42
	Nominal heating		4.65	6.61	8.18
	Max heating		5.45	8.29	10.25
EER	Cooling	W/W	3.56	3.26	3.22
COP	Nominal heating		4.82	4.24	4.10
	Max heating		4.56	3.80	3.66
Air flow rate		m3/h	8,400	9,000	11,000
External static pressure (max.)		Pa	20	30	30
Sound pressure level / Power level	Cooling	dB (A)	52 / 66	54/69	59/73
	Heating		54 /-	57/-	61/-
Dimensions	Height	mm	1,428	1,428	1,428
	Width		1,080	1,080	1,080
	Depth		480	480	480
Weight		kg	170	177	178
Refrigerant	Type		R410A	R410A	R410A
	Charge	kg (CO2eq-T)	7.0 (14.6)	7.5 (15.7)	7.5 (15.7)
Connection pipe diameter	Liquid	mm	9.52	9.52	12.70
	Gas		19.05	22.20	28.58
Total pipe length		m	400	400	400
Max. Height difference			50/40 (Outdoor unit: Upper/Lower)		
Operation range	Cooling	°C	-15 to 46	-15 to 46	-15 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: 7.5m; Height difference between outdoor unit and indoor unit: 0m.

Dimensions

Models: AJY072LELAH / AJY090LELAH / AJY108LELAH   (Unit: mm)

1080

480

1428

480

196   688   196

480

516

38
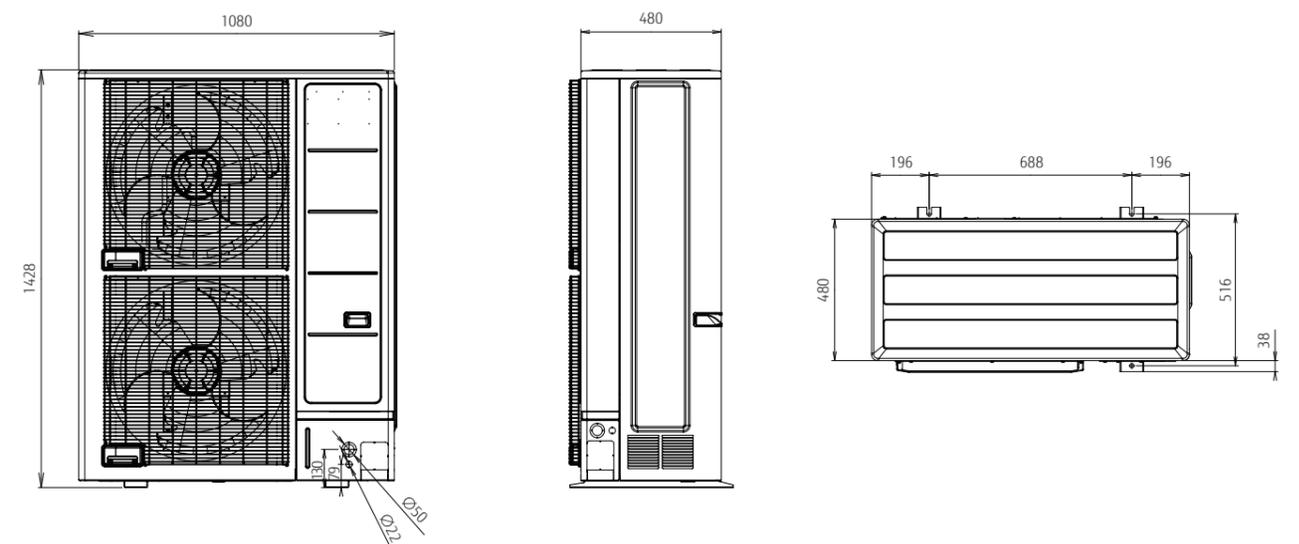
HEAT PUMP TYPE

AIRSTAGE™ J-III series

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

System Outline

High energy efficiency

Heat pump inverter control is used to achieve efficient cooling or heating operation with any indoor unit combination.

Flexible systems for small and medium size building air conditioning requirements

The space saving and long piping design allows for flexible installation on roofs or balconies of small and medium size buildings.
Multiple indoor units of various capacities and types can be connected.

Small Office
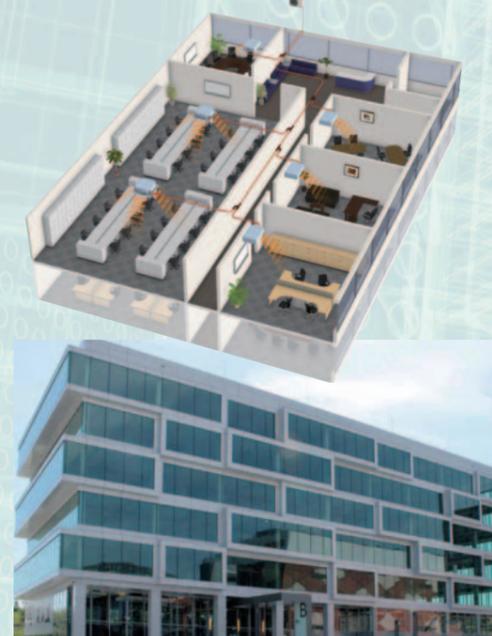
System configuration example

• This system typically used for small and medium-sized buildings
• This example shows the connection of multiple indoor units using separation tubes and headers

Outdoor unit

Separation tube   Header

Indoor unit

Liquid pipe

Gas pipe

Indoor unit
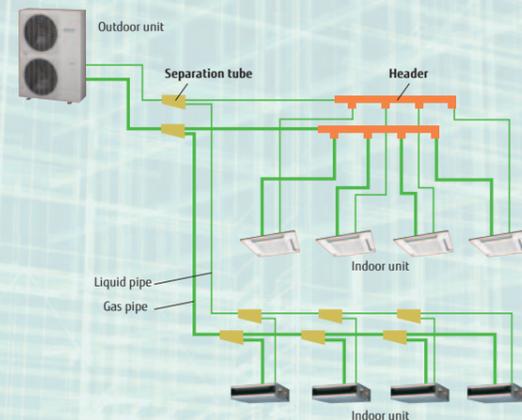
Efficiency during operation

The high COP is achieved for all models through a large heat exchanger, high efficient DC twin compressor and our own technologies.

High EER / COP   ■ EER / ■ COP

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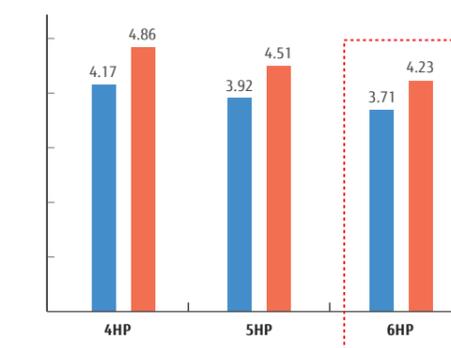
	4HP	5HP	6HP
EER	4.17	3.92	3.71
COP	4.86	4.51	4.23

6HP class

	J-II	J-III	J-II	J-III
	3.45	3.71	3.95	4.23

8 % UP   7 % UP

Advanced high efficiency technology

Large propeller fan
High performance and low noise is realised by the large propeller and angle optimisation.

DC fan motor
The outdoor unit utilises a miniaturised, high efficiency, multi-stage DC fan motor.
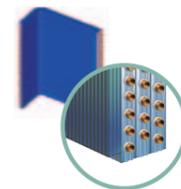
Large heat exchanger
Heat exchange performance is substantially improved by inclusion of a 3-row large heat exchanger.

DC inverter control
Efficiency is improved through the new active filter module.

Subcool heat exchanger
Cooling performance is improved from the dual tube heat exchanger.
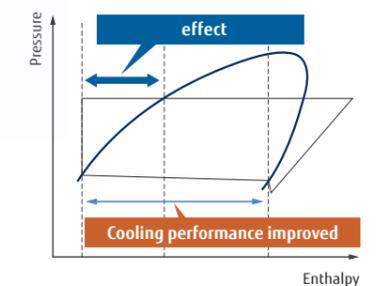
effect

Pressure

Cooling performance improved

Enthalpy

High efficiency compressor motor

Optimised refrigerant flow design

High precision parts

DC twin rotary compressor
Efficiency in all load regions is consistent, especially when meeting low to medium load requirements.
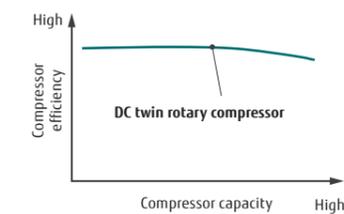
High

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 180m opening up new possibilities in system design.

Total pipe length
180m max.

Actual piping length
120m max.

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

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

Height difference between indoor and indoor units
15m max.

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

With the connection check function it is possible to confirm whether the wiring connection and address settings are correct through a quick check run function.

• Displays connected indoor unit numbers
• Duplicate address numbers of indoor units can be identified

Specifications

Rating capacity range		HP	4	5	6
Model name			AJY040LBLAH	AJY045LBLAH	AJY054LBLAH
Maximum connectable indoor units			1-8	1-9	1-10
Power source			Single-phase, ~230V, 50Hz		
Capacity	Cooling	kW	12.1	14.0	15.5
	Heating		13.6	16.0	18.0
Input power	Cooling	kW	2.90	3.57	4.18
	Heating		2.80	3.55	4.26
EER	Cooling	W/W	4.17	3.92	3.71
COP	Heating		4.86	4.51	4.23
Air flow rate		m3/h	6,200	6,400	6,900
Sound pressure level / Power level	Cooling	dB (A)	50 / 66	51 / 67	53 / 69
	Heating		52 / 68	53 / 69	55 / 71
Heat exchanger fin			Blue fin	Blue fin	Blue fin
Dimensions	Height	mm	1,334	1,334	1,334
	Width		970	970	970
	Depth		370	370	370
Weight		kg	117	117	119
Refrigerant	Type (Global Warming Potential)		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)
Connection pipe diameter	Liquid	mm	9.52	9.52	9.52
	Gas		15.88	15.88	19.05
Total pipe length		m	180	180	180
Max. height difference			50/40 (Outdoor unit: Upper/Lower)		
Operation 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: 7.5m; Height difference between outdoor unit and indoor unit: 0m.
The protective function may work when using it outside the operation range.

Dimensions

Models: AJY040LBLAH / AJY045LBLAH / AJY054LBLAH

(Unit: mm)
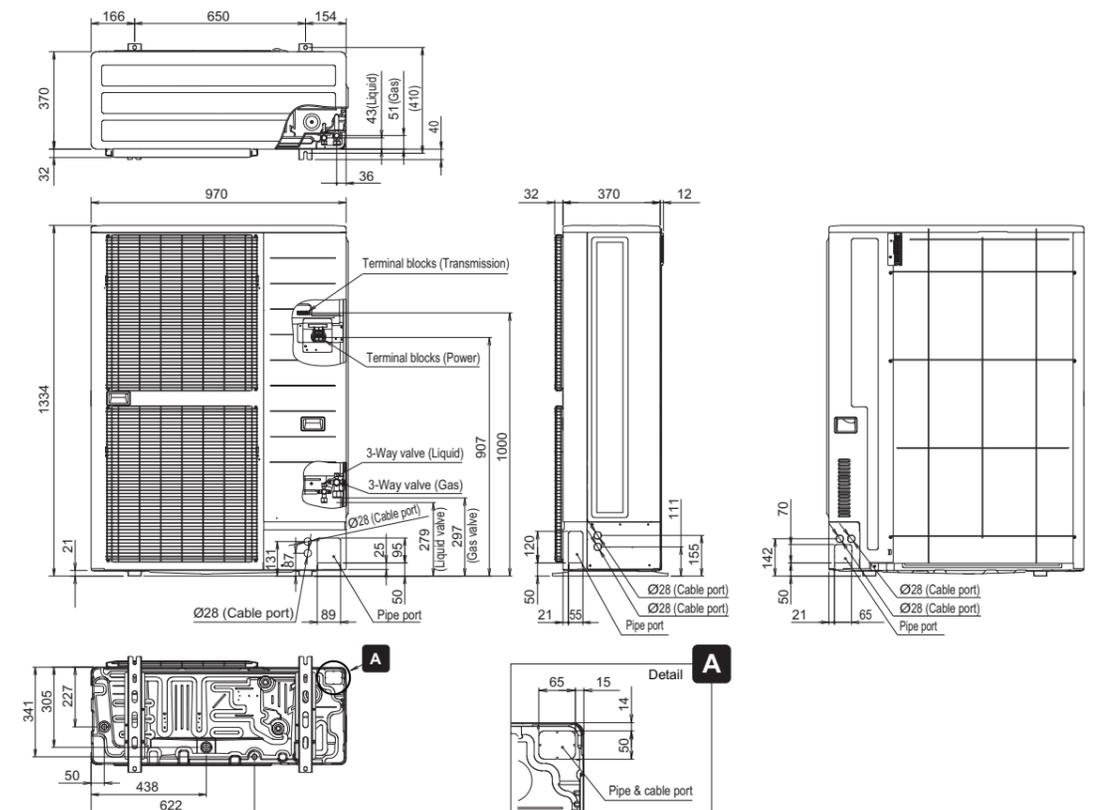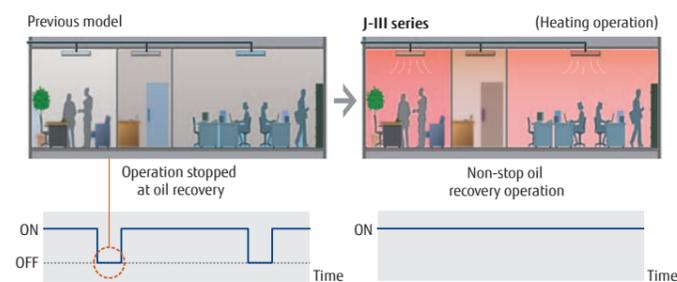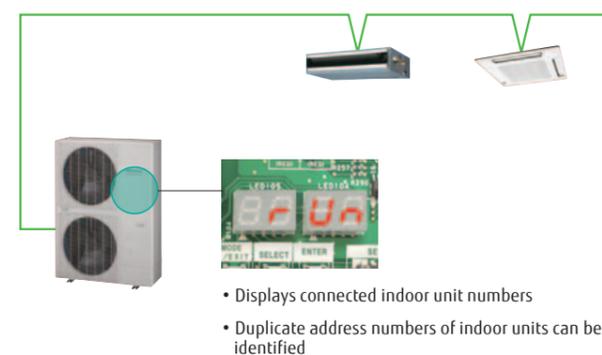
HEAT PUMP TYPE

AIRSTAGE™ 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
Compact design and high efficiency is realised by ALL-DC technology, large capacity DC twin rotary compressor and a 3-row heat exchanger.

Flexible systems for small and medium building air conditioning requirements
Due to the compact size and flexible piping design, the J-IIS series can be installed easily when the installation space is limited such as in 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
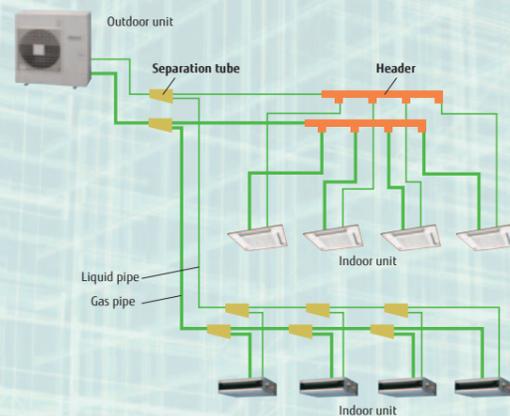
Easy transportation and flexible installation

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

Model / 6HP class

Height difference
998 mm
▲25%
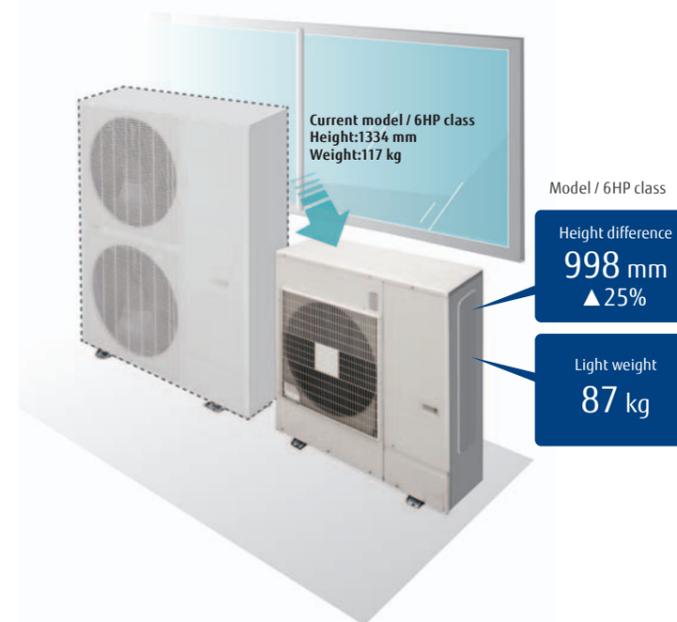
Light weight
87 kg

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 railing. The compact size with a height of less than 1m allows it to be installed in tight spaces.
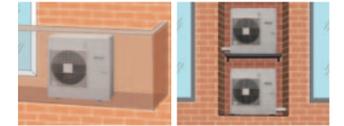
High AEER* and ACOP*

High average cooling and heating efficiency are significantly realised by utilising All DC inverter control, DC twin rotary compressor, and advanced airflow structure.

AEER   ACOP

3.10

6 HP Previous model		4 HP	5 HP	6 HP
2.63	3.16	3.14 / 3.61	3.15 / 3.78	3.25 / 4.07

AIRSTAGE J-IIS
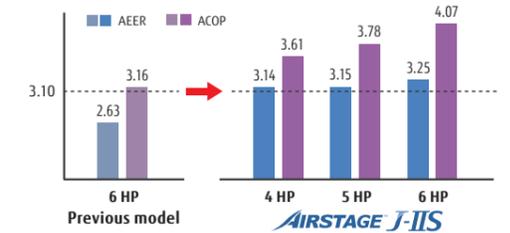
*AEER: Average Energy Efficiency Ratio
*ACOP: Average Coefficiency Of Performance

Advanced high efficiency technology

Large propeller fan
High performance and low noise realised by the large propeller and angle optimisation.

DC fan motor
The outdoor unit utilises a miniaturised, high efficiency, multi-stage DC fan motor.
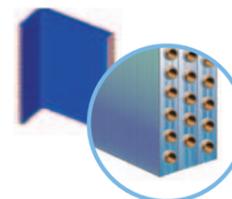
Large heat exchanger
Heat exchange performance is substantially improved by the use of 3-row large heat exchanger.
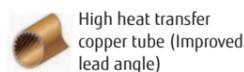
High heat transfer copper tube (Improved lead angle)

Smooth airflow grille
Aerodynamically designed for enhanced efficiency with little blow loss.
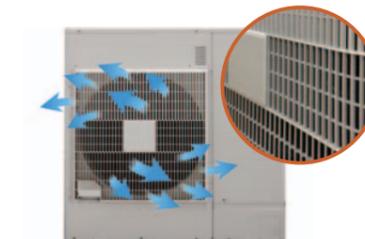
DC inverter control
Efficiency is improved through the new active filter module.

Low noise rubber
High efficiency compressor motor
Optimised refrigerant flow design
High precision parts

Compact and high performance DC twin rotary compressor

Efficiency in all load regions particularly when at low to medium load requirements.

High

Compressor efficiency

Compressor capacity   100%   High

Long piping capability

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

Total pipe length
80m max.

Actual piping length
50m max.

Height difference between outdoor and indoor units
30m max.

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

Height difference between indoor and indoor units
15m max.

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)

Operation stopped at oil recovery | Non-stop oil recovery operation

ON
OFF
Time

ON
Time

Easier installation

With the connection check function it is possible to confirm whether the wiring connection and address settings are correct through a quick check run function.

• Displays connected indoor unit numbers
• Duplicate address numbers of indoor units can be identified
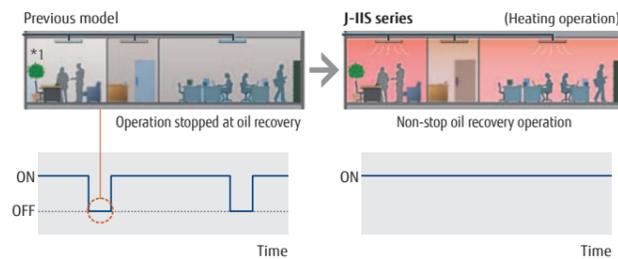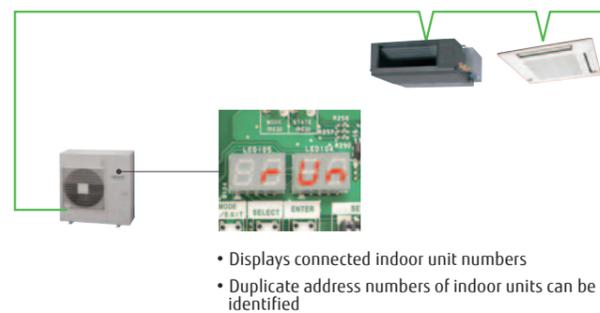
Specifications

Rating capacity range		HP	4	5	6
Model name			AJT040LCLAH	AJT045LCLAH	AJT054LCLAH
Maximum connectable indoor units			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	4.23	4.58
	Heating		3.09	3.93	4.11
EER	Cooling	W/W	3.52	3.31	3.30
COP	Heating		4.40	4.07	4.01
Air flow rate	Cooling	m³/h (l/s)	4,040 (1,122)	4,200 (1,167)	4,540 (1,261)
	Heating		4,040 (1,122)	4,200 (1,167)	4,200 (1,167)
Sound pressure level / Power level	Cooling	dB (A)	51	53	56
	Heating		54	55	56
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
Operation 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: 7.5m; Height difference between outdoor unit and indoor unit: 0m.

These are the measured values in the manufacturer's anechoic chamber.
Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

Dimensions

Models: AJT040LCLAH / AJT045LCLAH / AJT054LCLAH

(Unit: mm)

Top view

Front view

Side view

Rear view

Bottom view

Detail A
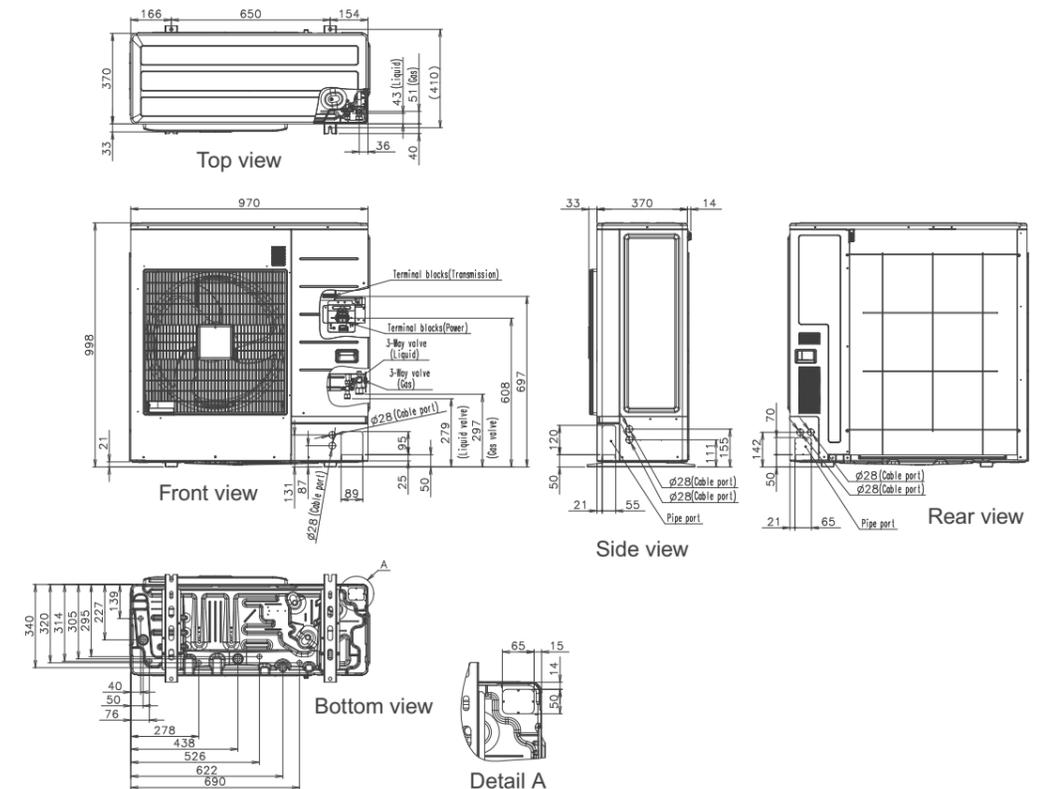
17 types and 82 models available to meet the requirements of almost any building design.

The AIRSTAGE™ indoor units were developed to be highly efficient, compact, low noise producing with 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.

AIRSTAGE™ INDOOR UNITS

INDOOR UNITS LINEUP

4-way Flow Compact Cassette

4-way Flow Cassette

Circular Flow Cassette

Mini Duct

Slim Duct / Slim Concealed Floor

Medium Static Pressure Duct

High Static Pressure Duct

Compact Floor

Floor / Ceiling

Ceiling

Wall Mounted (EEV Internal / External)

AIRSTAGE™

INDOOR UNITS LINEUP

Comprehensive range of indoor units with varied design and capacity ranges are available which can be selected to suit most air conditioning needs.
17 types, 82 models, with a capacity range from 2.2kW to 28.0kW

Indoor units range

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	4-way Flow Compact	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH									
	4-way Flow (Slim type)					AUXD18GALH	AUXD24GALH									
	4-way Flow (Large type)					AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH				
	Circular Flow NEW (Slim type)					AUXM018GLAH	AUXM024GLAH	AUXM030GLAH								
	Circular Flow NEW (Large type)					AUXK018GLAH	AUXK024GLAH	AUXK030GLAH	AUXK034GLAH	AUXK036GLAH	AUXK045GLAH	AUXK054GLAH				
Duct	Mini Duct (With drain pump)	ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH									
	Slim Duct (With drain pump)	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH									
	Medium Static Pressure Duct						ARXA24GBLH	ARXA30GBLH		ARXA36GBLH	ARXA45GBLH					
	High Static Pressure Duct									ARXC36GATH ARXC36GBTH	ARXC45GATH		ARXC60GATH	ARXC72GATH	ARXC90GATH	ARXC96GATH
Floor	Floor (Same as Ceiling models)			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH									
	Slim Concealed Floor (Same as Slim Duct models)	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH									
	Compact Floor NEW	AGYA007GCAH	AGYA009GCAH	AGYA012GCAH	AGYA014GCAH											
	Compact Floor NEW (EEV external)	AGYE007GCAH	AGYE009GCAH	AGYE012GCAH	AGYE014GCAH	With this model, connection of EV kit is necessary.										
Ceiling	Ceiling			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH	ABYA30GATH		ABYA36GATH	ABYA45GATH	ABYA54GATH				
Wall Mounted	Wall Mounted NEW	ASYA007GTAH	ASYA009GTAH	ASYA012GCAH	ASYA014GCAH	ASYA18GBCH	ASYA24GBCH	ASYA030GTAH	ASYA034GTAH							
	Wall Mounted NEW (EEV external)	ASYE007GTAH	ASYE009GTAH	ASYE012GCAH	ASYE014GCAH	With this model, connection of EV kit is necessary.										

*1: ARXC60/72/90/96G cannot be connected to J-IIS series and J-III series.

4-way Flow Compact Cassette

Models
AUXB07GALH
AUXB09GALH
AUXB12GALH
AUXB14GALH
AUXB18GALH
AUXB24GALH

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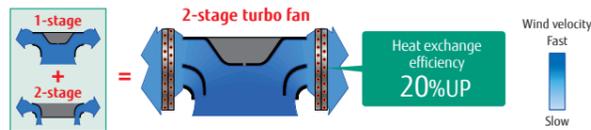
Previous turbo fan
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.

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

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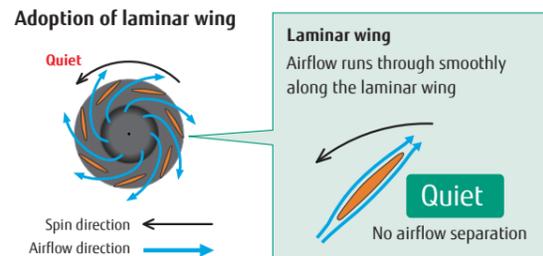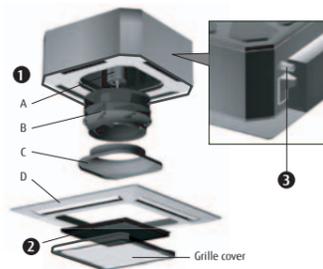
❶ **Maintenance of fan motor and fan**
Maintenance of the fan motor and fan can be done easily after taking off the panel as the bell mouth of the fan can be removed easily.

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 3.0m (12/14/18/24).

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

Compact design

The worlds first 24,000Btu model in the compact cassette category.
(Easily installed by taking off ceiling panel of 600 x 600 size)

570mm
570mm

High lift drain pump

Ceiling panel

Max. **700mm**
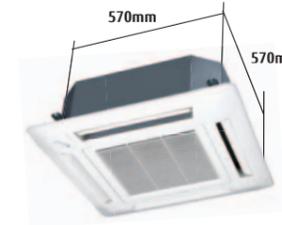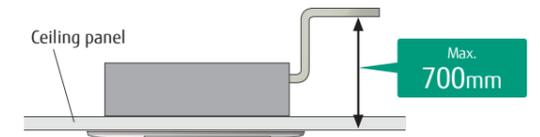
Optional parts
Air outlet shutter plate: UTR-YDZB
Insulation kit for high humidity: UTZ-KXGC
Fresh air intake kit: UTZ-VXAA

Specifications

| Model name			AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH
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 (l/s)	540 (150)	550 (153)	600 (167)	680 (189)	710 (197)	1,030 (286)
	Med		450 (125)	450 (125)	530 (147)	590 (164)	580 (161)	830 (231)
	Low		350 (97)	350 (97)	390 (108)	390 (108)	400 (111)	450 (125)
Sound pressure level	High	dB (A)	34	35	37	38	41	50
	Med		30	30	34	34	35	44
	Low		25	25	27	27	27	30
Dimensions (H × W × D)		mm	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570
Weight		kg	15	15	15	15	17	17
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	9.52	9.52
	Gas (Flare)		12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32					
Cassette grille	Model name		UTG-UFYC-W					
	Dimensions (H+W+D)	mm	50 × 700 × 700					
	Weight	kg	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: 7.5m; Height difference between outdoor unit and indoor unit: 0m. Voltage: 230V.

Dimensions (Unit: mm)

700
700
Bottom view

Side view
30
50

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

□580-660 (Ceiling openings)

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

116
222
Ceiling
762
58
124

64
65
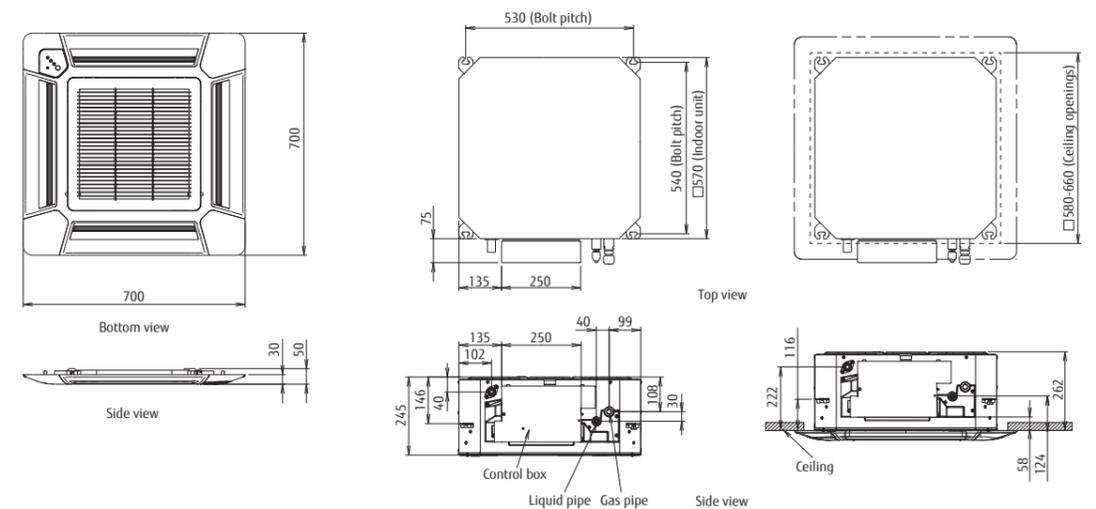
4-way Flow Cassette

Models (Slim type)
AUXD18GALH
AUXD24GALH

Models (Large type)
AUXA18GALH
AUXA24GALH
AUXA30GALH
AUXA34GALH
AUXA36GALH
AUXA45GALH
AUXA54GALH

DC FAN

Features

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.
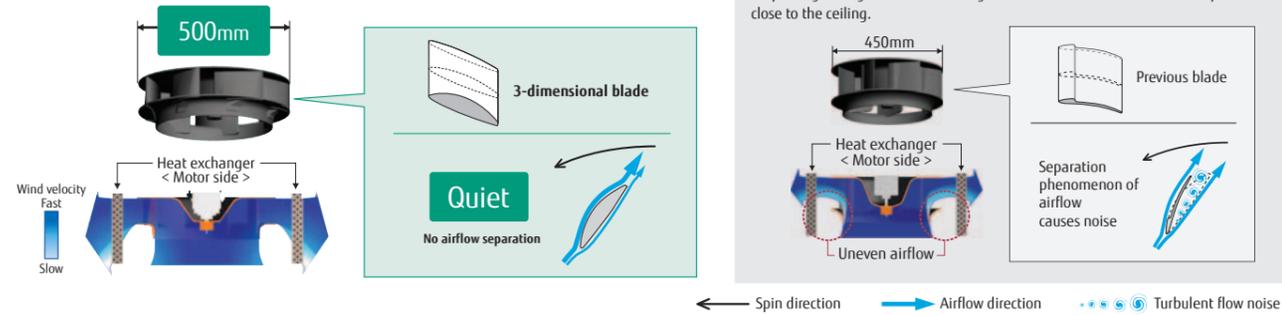
500mm

3-dimensional blade

Quiet

No airflow separation

Wind velocity
Fast

Heat exchanger
< Motor side >

Slow

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

450mm

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 unique design of the louvers and added space between the chassis and ceiling maximises airflow distribution within the room.

Bottom view

Front part Ceiling

Rear part

Round louver

Much less temperature irregularity happens by spreading airflow widely
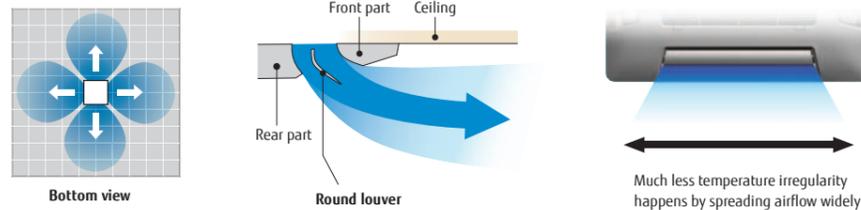
Adjustment of hanger position is possible after installation

Detachable Grille corner

Adjustment can be done by taking off the corner part
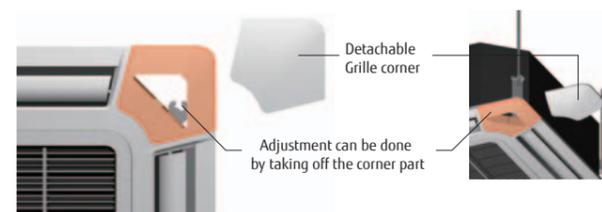
High ceiling mode

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

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

One way installation

Parallel apertures

High lift drain pump

Ceiling panel

Max. 850mm
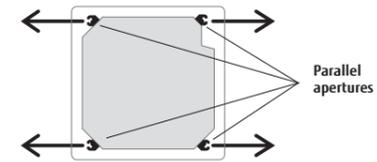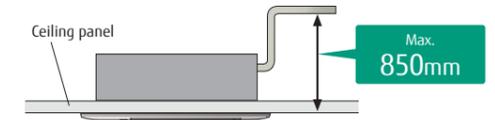
Optional parts

|	
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

Specifications

Model name			AUXD18GALH	AUXD24GALH	AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH
Power source			Single - phase, ~230V, 50Hz								
Capacity	Cooling	kW	5.6	7.1	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating		6.3	8.0	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	39	46	51	51	59	77	80	99	119
Airflow rate	High	m³/h (l/s)	1,150 (319)	1,280 (356)	1,420 (394)	1,420 (394)	1,600 (444)	1,750 (486)	1,800 (500)	1,900 (528)	2,000 (556)
	Med		940 (261)	1,040 (289)	1,230 (342)	1,230 (342)	1,300 (361)	1,300 (361)	1,300 (361)	1,370 (381)	1,370 (381)
	Low		870 (242)	870 (242)	1,100/1,000*¹ (306/278)	1,100/1,000*¹ (306/278)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)
Sound pressure level	High	dB (A)	36	38	40	40	40	43	44	46	47
	Med		30	33	36	36	38	38	38	39	39
	Low		29	29	33/31*¹	33/31*¹	33	33	33	33	33
Dimensions (H × W × D)		mm	246 × 840 × 840	246 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840
Weight		kg	22	22	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	9.52	9.52
	Gas (Flare)		15.88	15.88	15.88	15.88	15.88	19.05	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. *1: This value is under cooling operation.
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length: 7.5m; Height difference between outdoor unit and indoor unit: 0m. Voltage: 230V.

Dimensions (Unit: mm) ( ): AUXD18 / AUXD24

IR receiver (Option)
950
950
(Control) Box

796
Hanging bolt position
□ 840 : Indoor unit
607
690
Hanging bolt position
□ 860 to 910
Ceiling opening
420
Drain hose
358

358 278 60
40
200
289 (256)
10
Liquid pipe
Gas pipe
Wire hole
44
140

142
Ceiling
142
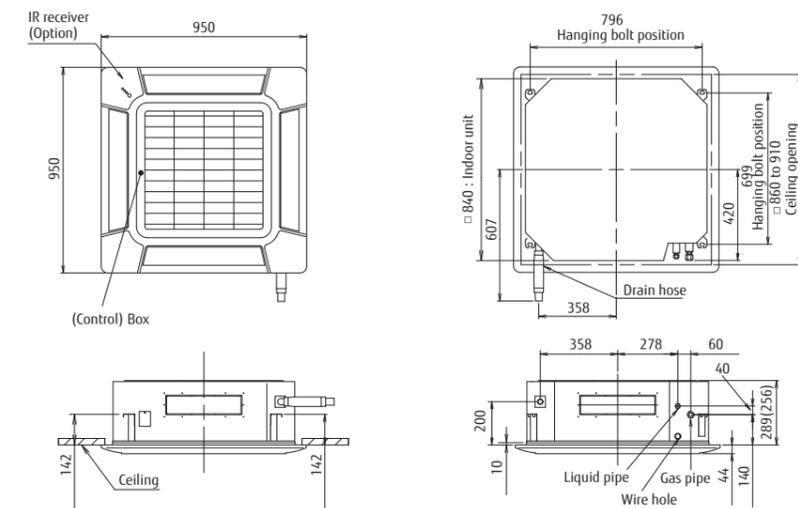
Circular Flow Cassette

Models (Slim type)
AUXM18GLAH `NEW`
AUXM24GLAH `NEW`
AUXM30GLAH `NEW`

Models (Large type)
AUXK18GLAH `NEW`
AUXK24GLAH `NEW`
AUXK30GLAH `NEW`
AUXK34GLAH `NEW`
AUXK36GLAH `NEW`
AUXK45GLAH `NEW`
AUXK54GLAH `NEW`

DC FAN

Features

Unique circular flow design

The new cassette type creates a consistent and even temperature via multi-directional 360° airflow functionality. This is achieved by mounting a high performance DC fan motor, new turbo fan and unique seamless airflow louver design.

Ø7mm high density heat exchanger
New DC fan motor
High efficient turbo fan
Seamless airflow louver
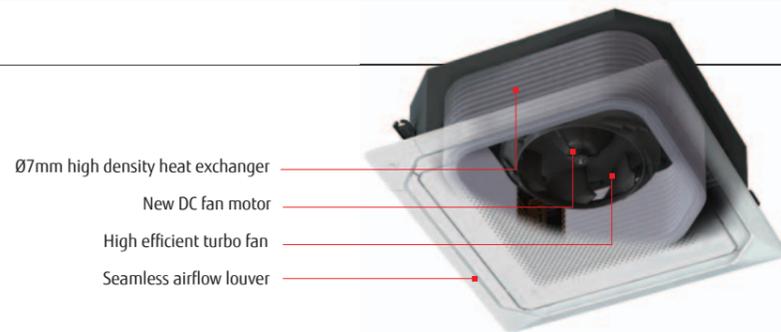
Uniform temperature air conditioning

Achieve a consistent and even temperature in the room with circular flow and wide vertical airflow spreading conditioned air to every corner of the room.
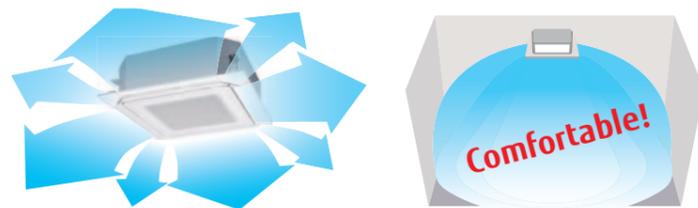
Comfortable!

Individual louver control

Each louver can be set individually with the Touch Panel Wired Remote Controller allowing different directional airflows according to various room layouts.
* Touch Panel Wired RC (UTY-RNRYZ2) only

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

Efficient air conditioning based on the room layout

Human sensor increases energy saving operation

Energy saving operation starts automatically by detecting the motion of a person. The human sensor detects movement and activates or deactivates energy saving mode accordingly. 2 modes of save operation mode and stop mode can be selected.
*Touch Panel Wired RC (UTY-RNRYZ2) only

2 modes can be selected.

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

Human sensor (Option)

Specifications

Model name			AUXM018GLAH	AUXM024GLAH	AUXM030GLAH	AUXK018GLAH	AUXK024GLAH	AUXK030GLAH	AUXK034GLAH	AUXK036GLAH	AUXK045GLAH	AUXK054GLAH
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-Hi		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
	Lo-Hi		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-Hi		32	33	36	37	37	38	38	40	42	45
	Med		31	32	34	36	36	37	37	38	40	42
	Lo-Hi		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	6.35	9.52	9.52	9.52	9.52	9.52
	Gas (Flare)		12.70	15.88	15.88	12.70	12.70	15.88	15.88	15.88	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32									
Cassette Grille	Model name		UTG-UKGC-W									
	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: 7.5m; Height difference between outdoor unit and indoor unit: 0m. Voltage: 230V.

When AUX*018GLAH is connected to the outdoor unit other than J-IIIL, pipe diameter should be Ø9.52/Ø15.88 (Liq/Gas)
When AUXK036GLAH, AUXK045GLAH, and AUXK054GLAH are connected to the outdoor unit other than J-IIIL, gas pipe diameter should be Ø19.05.

## Dimensions (Unit: mm)

Models: AUXM18 / AUXM24 / AUXM30

IR receiver (option)
Human sensor (option)
950
950
(Control) box
796
Hanging bolt position
768
Hanging bolt position
Drain hose
□840: Indoor unit
200-205
Ceiling
256
39
Liquid pipe
Gas pipe
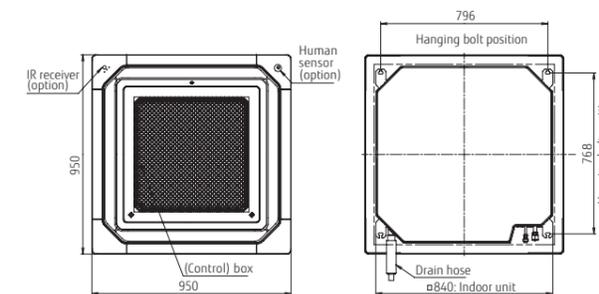
Models: AUXK18 / AUXK24 / AUXK30 / AUXK34 AUXK36 / AUXK45 / AUXK54

IR receiver (option)
Human sensor (option)
950
950
(Control) box
796
Hanging bolt position
768
Hanging bolt position
Drain hose
□840: Indoor unit
200-205
Ceiling
298
39
Wire hole
Liquid pipe
Gas pipe
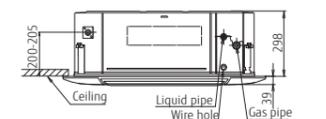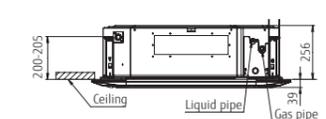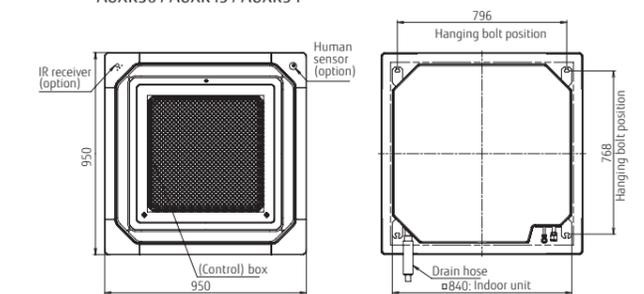
Mini Duct

Models (With drain pump)

ARXK07GCLH
ARXK09GCLH
ARXK12GCLH
ARXK14GCLH
ARXK18GCLH
ARXK24GCLH

ARXK07 ARXK09 ARXK12 ARXK14

ARXK18

ARXK24

DC FAN

Features

Compatible with the requirements of the installation space

• The compact design allows for the installation space to be reduced down to a minimum depth of 450mm and height of 198mm
• Lightweight: 16kg, 10% down

(Unit: mm)

450

198

225*

600*

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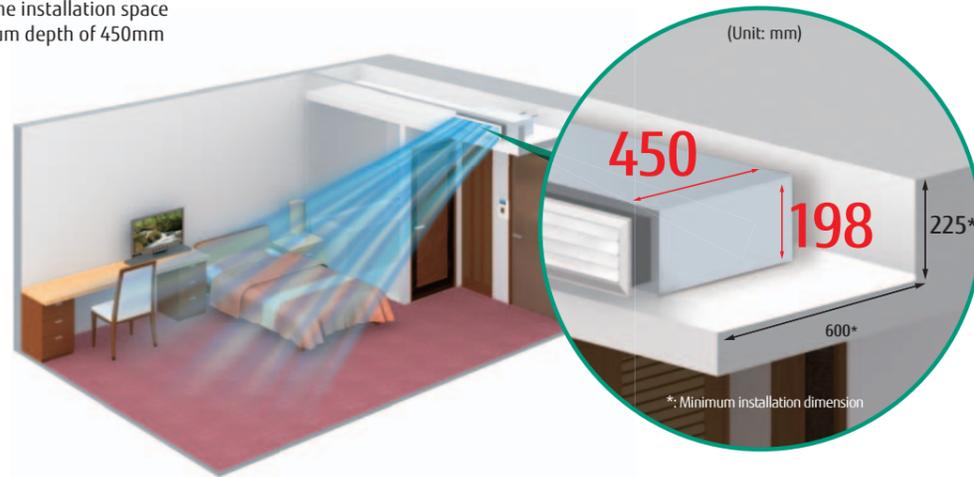
Optimum airflow path and low noise operation

Low noise is realised drastically with the stabilized airflow design

Air Stabilizer

High efficient DC fan motor
Lower power consumption

V-shape heat exchanger
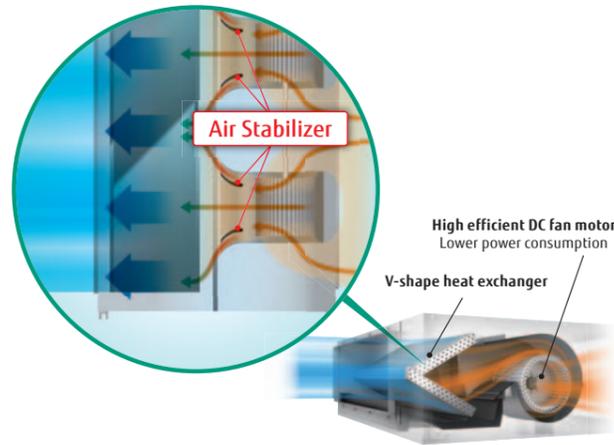
Easy design and maintenance for drain

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 the remote controller.
* 0 to 30 Pa. (07/09/12)

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 be installed in quiet areas.

6 Step Speed

| High |
| Med-H |
| Med |
| Med-L |
| Low |
| Quiet |

Low noise
21 dB(A)
at 04 model
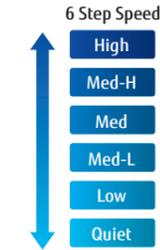
* Compatible remote controllers:
  UTY-RNRYZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Auto louver grille kit (Option)

• Thin design provides a comfortable living environment over a wide area
• Automatic louver grille provides comfortable air conditioning from floor to ceiling (Optional)
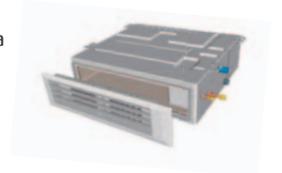
Optional parts

Remote sensor unit: UTY-XSZX
IR receiver unit: UTB-TWC
Auto louver grille kit: UTD-GXTA-W (for ARXK04/07/09/12/14)
UTD-GXTB-W (for ARXK18)
UTD-GXTC-W (for ARXK24)

Specifications

| Model name			ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH
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	GCLH	W	28	28	35	66	73	80
Airflow rate	High	m³/h (l/s)	460(128)	460(128)	550(153)	760(211)	930(258)	1,160(322)
	Med-H		–	–	–	–	–	–
	Med		420(117)	420(117)	480(133)	560(156)	740(206)	960(267)
	Med-L		–	–	–	–	–	–
	Low		370(103)	370(103)	410(114)	410(114)	540(150)	750(208)
	Quiet		–	–	–	–	–	–
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-H		–	–	–	–	–	–
	Med		24	24	26	28	28	28
	Med-L		–	–	–	–	–	–
	Low		22	22	24	24	24	25
	Quiet		–	–	–	–	–	–
Dimensions (H × W × D)		mm	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 900 × 450	198 × 1,100 × 450
Weight	GCLH	kg	15.5	15.5	16	16	19	22.5
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	9.52	9.52
	Gas (Flare)		12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32					

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

Dimensions (Unit: mm)

Models: ARXK07GCLH / ARXK09GCLH / ARXK12GCLH / ARXK14GCLH
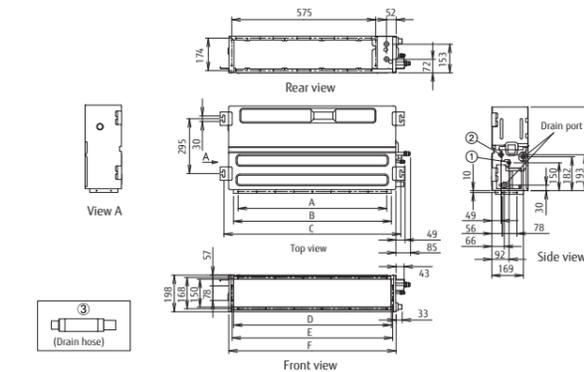
575   52
Rear view
View A
295
30
A
B
C
Top view
Drain port
49
85
198 168 150 78
43
D
E
F
Front view
③
(Drain hose)
49
56
66
78
92
169
Side view

	ARXK07-14	ARXK18	ARXK24
A	P100+6+600	P100+8+800	P100+10+1000
B	650	850	1050
C	752	952	1152
D	650	850	1050
E	665	864	1064
F	700	900	1100

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

Models: ARXK18GCLH / ARXK24GCLH
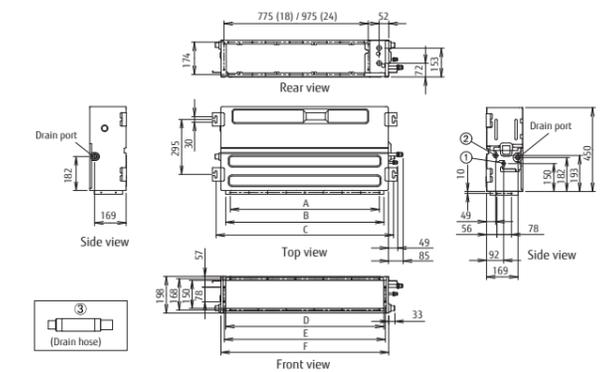
775 (18) / 975 (24)   52
Rear view
Drain port
192
169
Side view
295
30
A
B
C
Top view
Drain port
49
85
198 168 150 78
33
D
E
F
Front view
③
(Drain hose)
49
56
78
92
169
Side view

	ARXK07-14	ARXK18	ARXK24
A	P100+6+600	P100+8+800	P100+10+1000
B	650	850	1050
C	752	952	1152
D	650	850	1050
E	665	864	1064
F	700	900	1100

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

Slim Duct / Slim Concealed Floor

Models (With drain pump)

ARXD07GALH
ARXD09GALH
ARXD12GALH
ARXD14GALH
ARXD18GALH
ARXD24GALH

DC FAN

ARXD07 ARXD09 ARXD12 ARXD14

ARXD18

ARXD24

Slim Concealed Floor

Features

Slim design

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

Drain port

Drain pump

Height **198**mm

Drain pump built-in

Air-intake

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

Bottom side   Back side

Flexible installation

Ceiling concealed

Floor concealed
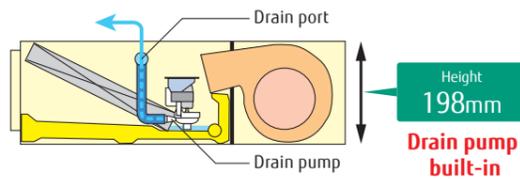
Selectable static pressure

By using DC fan motor, it is possible to change the static pressure range from 0 to 90Pa.
The static pressure range is configurable through the remote controller.

Static pressure range
0 to **90** Pa

*24 model is 0 to 50Pa

High lift drain pump

Max. **850**mm
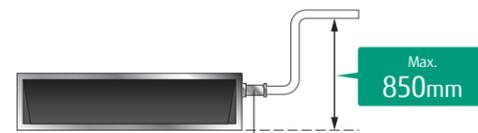
Drain hose (Standard accessory)
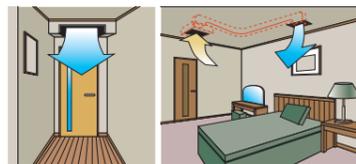
Filter (Accessory)

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

ARXD24   (3pcs.)
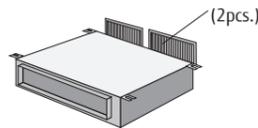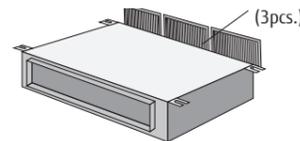
Auto louver grille kit (Option)

The Auto louver grille will provide comfortable airflow and compliment luxury interiors.
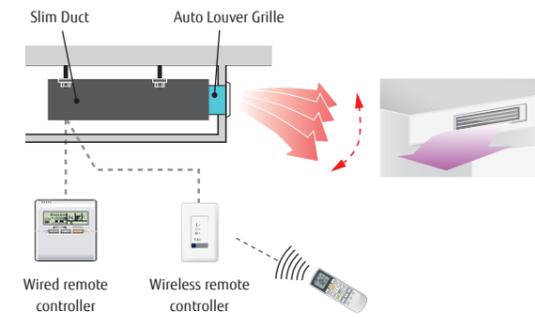
Slim Duct   Auto Louver Grille

Wired remote controller   Wireless remote controller

Optional parts

Remote sensor unit:	UTY-XSZX
IR receiver unit:	UTB-TWC
Auto louver grille kit:	UTD-GXTA-W (for ARXD04/07/09/12/14GALH)
	UTD-GXTB-W (for ARXD18GALH)
	UTD-GXTC-W (for ARXD24GALH)

Specifications

| Model name			ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH
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	44	50	54	92	83	122
Airflow rate	High	m³/h (l/s)	550 (153)	600 (167)	600 (167)	800 (222)	940 (261)	1,330 (369)
	Med		490 (136)	550 (153)	510 (142)	710 (197)	840 (233)	1,240 (344)
	Low		440 (122)	480 (133)	450 (125)	610 (169)	750 (208)	1,100 (306)
Static pressure range		Pa	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50
Standard static pressure			25	25	25	25	25	25
Sound pressure level	High	dB (A)	28	29	30	34	34	35
	Med		25	26	27	32	32	32
	Low		22	24	24	28	28	29
Dimensions (H × W × D)		mm	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 900 × 620	198 × 1,100 × 620
Weight		kg	17	17	18	18	22	26
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	9.52	9.52
	Gas (Flare)		12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32					

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

Dimensions (Unit: mm)

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

30
377 (Bolt pitch)
30
F (All surroundings)
E
D
C (Bolt pitch)
152
71
51
G
174
82
48

198
168
78
B
A
31

43
163
119
89
78
55
47
10
69
144
264
367
620

	ARXD07-14	ARXD18	ARXD24
A	700	900	1100
B	650	850	1050
C	734	934	1134
D	650	850	1050
E	P100x6=600	P100x8=800	P100x10=1000
F	-	22xØ5	26xØ5
G	574	774	974

Medium Static Pressure Duct

**Models**
ARXA24GBLH
ARXA30GBLH
ARXA36GBLH
ARXA45GBLH

DC FAN

Features

Slim and compact design

In the case of bottom return air connection, not only does the indoor unit design allow for installation in a narrow ceiling space of up to 270mm, further space savings have been achieved by mounting the electrical control box internally inside the chassis.

1,200 → 1,135mm

270mm

Control box is now included as part of the main chassis

One touch operating and easy to install long life filter (Optional parts)
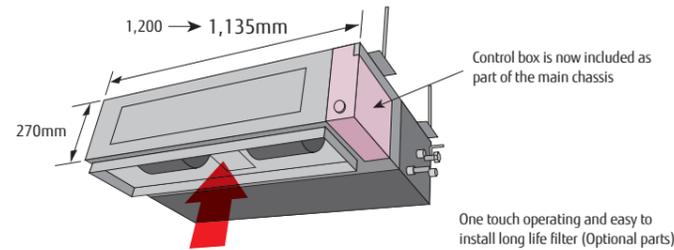
Low energy consumption through the high efficiency DC fan motor

Improved motor efficiency compared to the previous model.

24 model   30 / 36 / 45 model

Easy maintenance

See below for the case of rear suction type

Previous model

Large bottom panel: 1 piece

New model

1.Control box
2.Fan casing
3.Fan
4.Motor

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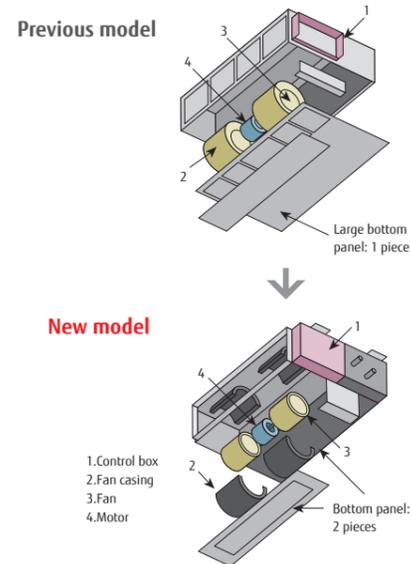
Structural improvement is attained by making the bottom panel two pieces, front and rear. The internal fan casing is also manufactured in two pieces, namely upper and lower. The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while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

Can be installed in various locations

This unit can be installed in a range of locations such as high-rise apartments through low static pressure design.

It can also be installed in open spaces where higher static pressure is required, such as offices.

Selectable with a wide range of static pressure

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

Static pressure range
0 to 150 Pa

Two direction drain piping

Duct indoor unit
Two direction drain piping

Static pressure setting via the remote controller

Changing the static pressure range is possible with the remote controller

Installation styles

Embedded in Ceiling   **Hanging from Ceiling**
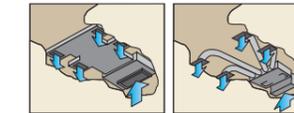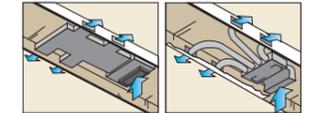
Optional parts

Remote sensor unit:	UTY-XSZX	Flange (round):	UTD-RF204
Long life filter:	UTD-LF25NA	IR receiver unit:	UTB-TWC
Flange (square):	UTD-SF045T	Drain pump unit:	UTZ-PX1NBA

Specifications

| Model name			ARXA24GBLH	ARXA30GBLH	ARXA36GBLH	ARXA45GBLH
Power source			Single - phase, ~230V, 50Hz			
Capacity	Cooling	kW	7.1	9.0	11.2	12.5
	Heating		8.0	10.0	12.5	14.0
Input power		W	94	108	194	240
Airflow rate	High	m³/h (l/s)	1,280 (356)	1,410 (392)	1,840 (511)	1,970 (547)
	Med		990 (275)	1,280 (356)	1,600 (444)	1,860 (517)
	Low		840 (233)	1,150 (319)	1,470 (408)	1,640 (456)
Static pressure range		Pa	0 to 150	0 to 150	0 to 150	0 to 150
Standard static pressure			40	50	50	60
Sound pressure level	High	dB (A)	31	34	37	41
	Med		27	32	35	38
	Low		23	29	33	36
Dimensions (H × W × D)		mm	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700
Weight		kg	36	40	40	40
Connection pipe diameter	Liquid (Flare)	mm	9.52	9.52	9.52	9.52
	Gas (Flare)		15.88	15.88	19.05	19.05
Drain hose diameter (I.D./O.D.)			25 / 32			

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

Dimensions (Unit: mm)

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

138   264   264   264   82

138

ø205 hole   75

Front view

270
32

240

ø200 (knock out hole)

161

P.C.D. ø225

121

Side view (L)

1177 (Bolt pitch)

Outlet

447 (Bolt pitch)

173

1015
1135   107

Top view

114
66
32   168

240
281

700

240
270

Side view (R)

Rear view

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

High Static Pressure Duct

Models
ARXC36GBTH
ARXC36GATH
ARXC45GATH
ARXC60GATH

Models
ARXC72GATH
ARXC90GATH

**Models**
ARXC96GATH

Features

Static pressure selection

By using a DC fan motor, it is possible to change the static pressure range from 0 to 200Pa (ARXC36GBTH) / 300Pa (ARXC96).

[Pa]
200 or 300

0

Air flow rate   [m³/h]

MAX.
200 Pa
(ARXC36 type)

MAX.
300 Pa
(ARXC96 type)
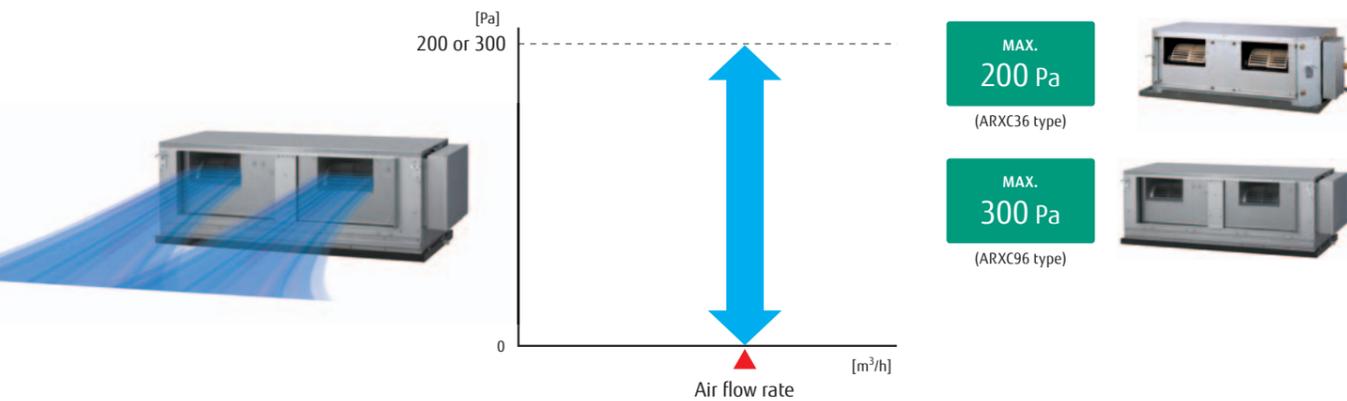
Low noise

Models: ARXC36 / ARXC45 / ARXC60

Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realised by adopting a plastic case and a plastic fan.
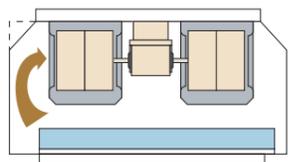
New model
(ARXC36GBTH)

ARXC36GBTH: Plastic fan [42dB(A)]

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

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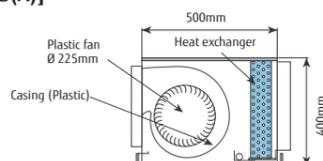
Low energy consumption with high efficiency DC fan motor

Improved motor efficiency from previous model.

(ARXC36GBTH)   (ARXC96GATH)
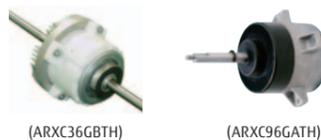
Easy installation (compact size and lightweight)

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

(Unit:mm)

400
1,050   500
(ARXC36 / 45 / 60 type)

450
1,550   700
(ARXC72 / 90 type)

550
1,587   700
(ARXC96 type)
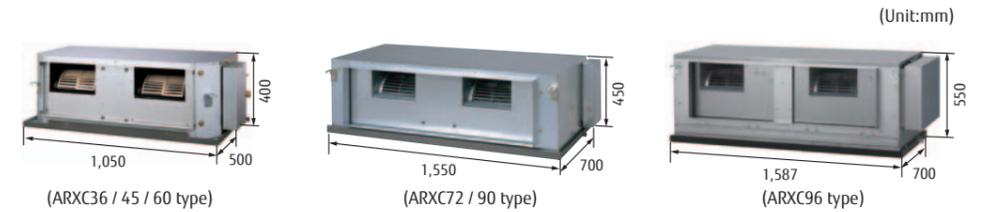
Optional parts

Long-life filter: UTD-LF60KA (For ARXC36 / 45 / 60)
IR receiver unit: UTB-TWC
Remote sensor unit: UTY-XSZX

Specifications

| Model name			ARXC36GBTH	ARXC36GATH	ARXC45GATH	ARXC60GATH*	ARXC72GATH*	ARXC90GATH*	ARXC96GATH*
Power source			Single - phase, ~230V, 50Hz						
Capacity	Cooling	kW	11.2	11.2	12.5	18.0	22.4	25.0	28.0
	Heating		12.5	12.5	14.0	20.0	25.0	28.0	31.5
Input power		W	207	405	715	730	1,110	1,250	838
Airflow rate	High	m³/h (l/s)	1,900 (553)	2,600 (722)	3,500 (972)	3,500 (972)	3,900 (1,083)	4,300 (1,195)	4,850 (1,347)
	Med		1,680 (467)	1,950 (542)	3,000 (833)	3,000 (833)	3,300 (917)	4,000 (1,111)	4,250 (1,181)
	Low		1,330 (369)	1,450 (403)	2,460 (683)	2,460 (683)	3,000 (833)	3,500 (972)	3,600 (1,000)
Static pressure range		Pa	0 to 200	100 to 200	100 to 250	100 to 250	50 to 300	100 to 300	0 to 300
Standard static pressure			100	100	100	100	260	250	150
Sound pressure level	High	dB (A)	42	45	49	49	51	53	48
	Med		36	38	45	45	48	51	45
	Low		32	32	42	42	45	49	42
Dimensions (H × W × D)		mm	400 × 1,050 × 500	400 × 1,050 × 500	400 × 1,050 × 500	400 × 1,050 × 500	450 × 1,550 × 700	450 × 1,550 × 700	550 × 1,587 × 700
Weight		kg	40	43	46	46	83	85	105
Connection pipe diameter	Liquid	mm	9.52 (Flare)	9.52 (Flare)	9.52 (Flare)	9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)	12.70 (Brazing)
	Gas		19.05 (Flare)	19.05 (Flare)	19.05 (Flare)	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)	22.22 (Brazing)
Drain hose diameter (I.D./O.D.)			25 / 32						

Note: Specifications are based on the following conditions.
*: ARXC60/72/90/96 cannot be connected to J-IIS or J-III 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: 7.5m; Height difference between outdoor unit and indoor unit: 0m. Voltage: 230V.

Dimensions (Unit: mm)

Models: ARXC36 / ARXC45 / ARXC60
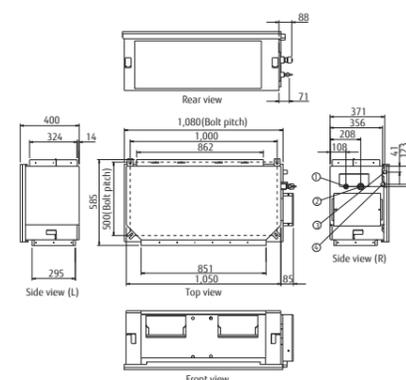
Models: ARXC72 / ARXC90
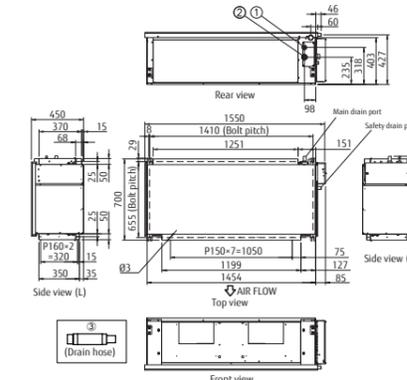
Models: ARXC96
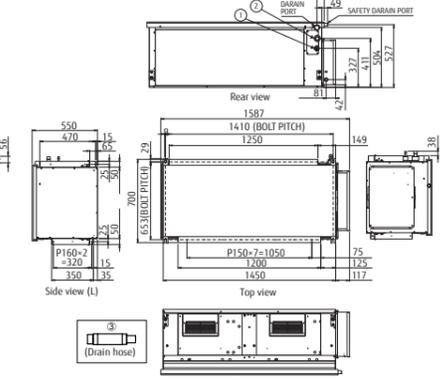
① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

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

Compact floor

Models (EEV internal)
AGYA007GCAH `NEW`
AGYA009GCAH `NEW`
AGYA012GCAH `NEW`
AGYA014GCAH `NEW`

Models (EEV external)
AGYE007GCAH `NEW`
AGYE009GCAH `NEW`
AGYE012GCAH `NEW`
AGYE014GCAH `NEW`

DC FAN

Features

2 fan and wide airflow

Individual vertical airflow by 2 fans 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 007/009 models

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

* Compatible Remote Controller is as follows:
UTY-RNRYZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Flexible and easy installation

Due to compact and flexible methods for installation including, floor, concealed, half concealed, or wall mounted, installation approach can be modified to match the room layout.

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

Standard concave portion
Min.900
Min. 700
(unit:mm)

Wall
(unit:mm)
Max. 150

Half concealed
(Optional parts necessary)
(unit:mm)
Min. 590
Min. 730
Max. 80

Flexible piping connection

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

Back view
1 2 3 4 5 6
Drain hose
Piping

Specifications

Model name			AGYA007GCAH	AGYA009GCAH	AGYA012GCAH	AGYA014GCAH	AGYE007GCAH	AGYE009GCAH	AGYE012GCAH	AGYE014GCAH
Power source			Single - phase, ~230V, 50Hz							
Capacity	Cooling	kW	2.2	2.8	3.6	4.0	2.2	2.8	3.6	4.0
	Heating		2.8	3.2	4.0	4.5	2.8	3.2	4.0	4.5
Input power		W	16	17	22	29	16	17	22	29
Airflow rate	High	m³/h	470	500	590	670	470	500	590	670
	Med-H		420	450	520	590	420	450	520	590
	Med		390	400	470	520	390	400	470	520
	Med-L		360	360	420	450	360	360	420	450
	Low		330	330	390	390	330	330	390	390
	Quiet		270	270	340	340	270	270	340	340
Sound pressure level	High	dB (A)	37	38	42	46	37	38	42	46
	Med-H		35	36	39	42	35	36	39	42
	Med		33	34	37	39	33	34	37	39
	Med-L		31	31	35	36	31	31	35	36
	Low		29	29	33	33	29	29	33	33
	Quiet		22	22	30	30	22	22	30	30
Dimensions (H × W × D)		mm	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200	600×740×200
Weight		kg	15.0	15.0	15.0	15.0	14.5	14.5	14.5	14.5
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
	Gas (Flare)		9.52	9.52	12.70	12.70	9.52	9.5	12.70	12.70
Drain hose diameter (I.D./O.D.)			13.8 / 15.8 to 16.7							
EV Kit (option)			–	–	–	–	UTR-EV09XB	UTR-EV09XB	UTR-EV14XB	UTR-EV14XB

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

When AGY*007GCAH and AGY*009GCAH 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

Floor / Ceiling

Models
ABYA12GATH
ABYA14GATH
ABYA18GATH
ABYA24GATH

DC
FAN

Floor standing

Features

Flexible installation

Example of 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 louvre

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

Super vane

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

Specifications

| Model name			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH
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 (l/s)	660 (183)	780 (216)	1,000 (277)	1,000 (277)
	Med		570 (158)	640 (177)	720 (199)	820 (227)
	Low		490 (136)	550 (152)	580 (161)	680 (188)
Sound pressure level	High	dB (A)	36	40	46	47
	Med		32	36	39	42
	Low		28	34	35	37
Dimensions (H × W × D)		mm	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655
Weight		kg	25	26	26	27
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	9.52	9.52
	Gas (Flare)		12.70	12.70	15.88	15.88
Drain hose diameter (I.D./O.D.)			25 / 32			

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

Dimensions (Unit: mm)

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

Ceiling

Models
ABYA30GATH
ABYA36GATH
ABYA45GATH
ABYA54GATH

DC
FAN

Features

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
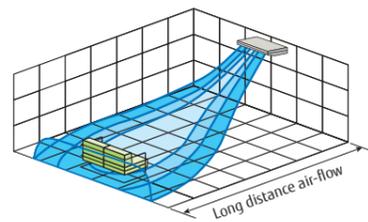
High power DC fan motor

• High power • Wide rotation range • High efficiency

Fresh air intake

Fresh air
Indoor
Outdoor

Slim and Compact design

Hight
240mm
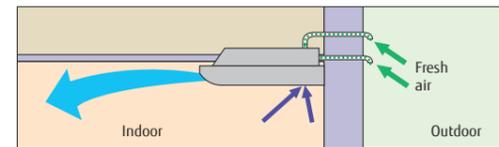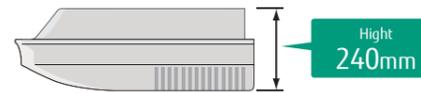
High lift drain pump

Optional drain pump unit allows flexible installation design.

Max.
500mm
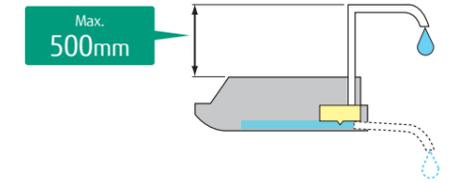
Optional parts

Drain pump unit: UTR-DPB24T
Flange:　　　　UTD-RF204

Specifications

| Model name			ABYA30GATH	ABYA36GATH	ABYA45GATH	ABYA54GATH
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 (l/s)	1,630 (452)	1,690 (469)	2,010 (558)	2,270 (629)
	Med		1,370 (379)	1,400 (389)	1,600 (444)	1,780 (493)
	Low		1,140 (316)	1,170 (325)	1,230 (342)	1,280 (355)
Sound pressure level	High	dB (A)	42	45	48	51
	Med		38	38	42	45
	Low		33	34	35	36
Dimensions (H × W × D)		mm	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700
Weight		kg	46	48	48	48
Connection pipe diameter	Liquid (Flare)	mm	9.52	9.52	9.52	9.52
	Gas (Flare)		15.88	19.05	19.05	19.05
Drain hose diameter (I.D./O.D.)			25 / 32			

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

Dimensions (Unit: mm)
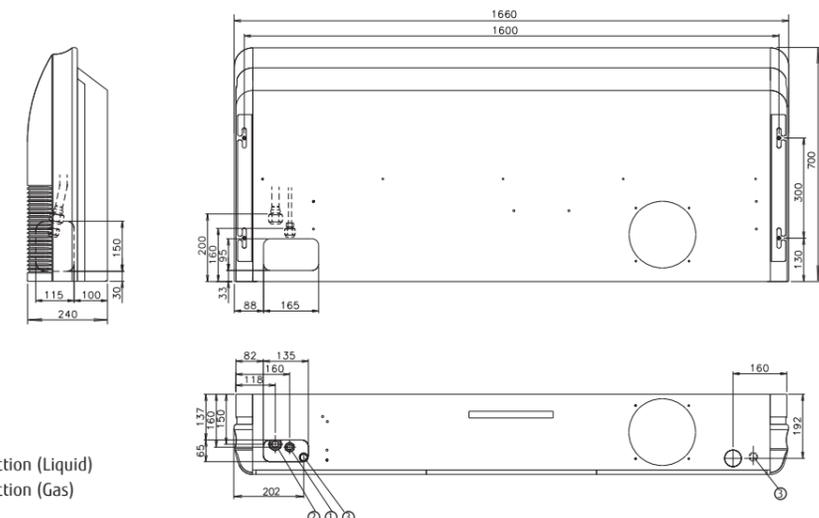
① Refrigerant piping flare connection (Liquid)
② Refrigerant piping flare connection (Gas)
③ Drain piping connection

Wall Mounted

Models (EEV internal)
ASYA007GTAH `NEW`
ASYA009GTAH `NEW`

Models (EEV external)
ASYE007GTAH `NEW`
ASYE009GTAH `NEW`

DC FAN

Features

High efficient compact design

5mm high density heat exchanger is mounted for the first time in the industry.
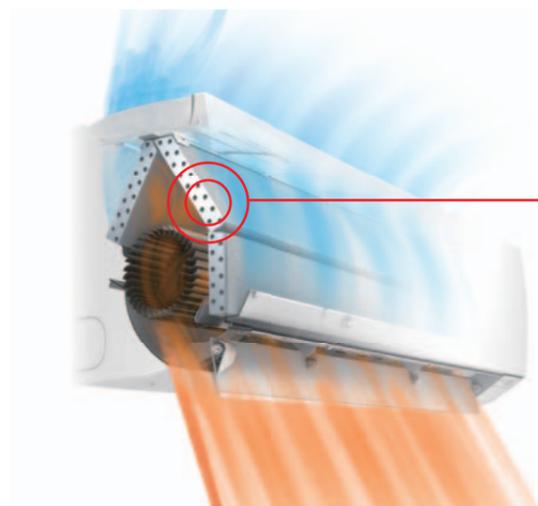
High density heat exchanger

$\phi 5$
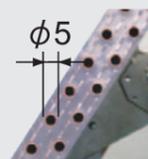
Making the tube thin:
7 mm → 5 mm

Increase of heat exchanger volume through high density and adopting a 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-RNRYZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Easy installation

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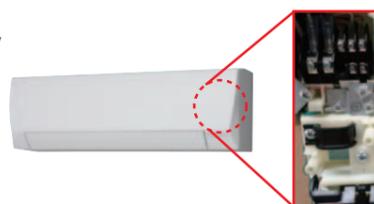
Optimised design

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

Specifications

| Model name			ASYA007GTAH	ASYA009GTAH	ASYE007GTAH	ASYE009GTAH
Power source			Single - phase, ~230V, 50Hz			
Capacity	Cooling	kW	2.2	2.8	2.2	2.8
	Heating		2.8	3.2	2.8	3.2
Input power		W	19	34	19	34
Airflow rate	High	m³/h	550	720	550	720
	Med-H		460	570	460	570
	Med		420	500	420	500
	Med-L		390	410	390	410
	Low		360	360	360	360
	Quiet		330	330	330	330
Sound pressure level	High	dB (A)	35	43	35	43
	Med-H		32	38	32	38
	Med		30	34	30	34
	Med-L		27	29	27	29
	Low		24	24	24	24
	Quiet		22	22	22	22
Dimensions (H × W × D)		mm	262×820×206	262×820×206	262×820×206	262×820×206
Weight		kg	7.5	7.5	7.0	7.0
Connection pipe diameter	Liquid (Flare)	mm	6.35	6.35	6.35	6.35
	Gas (Flare)		9.52	9.52	9.52	9.52
Drain hose diameter (I.D./O.D.)			13.8 / 15.8 to 16.7			
EV Kit (option)			–	–	UTR-EV09XB	UTR-EV09XB

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

When ASY*007GTAH and ASY*009GTAH are connected to a outdoor unit other than the J-IIIL range, gas pipe diameter will require an expander to alter the pipe size from 9.52mm to 12.70mm.

Dimensions (Unit: mm)

820
206
262
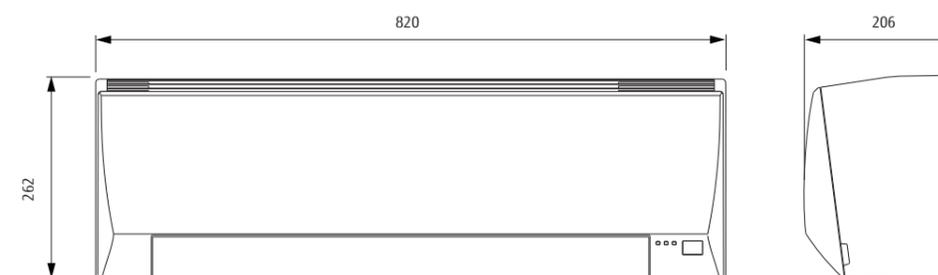
Wall Mounted

Models (EEV internal)
ASYA012GCAH NEW
ASYA014GCAH NEW

Models (EEV external)
ASYE012GCAH NEW
ASYE014GCAH NEW

DC FAN

Features

High efficient and compact design

High efficient and 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.
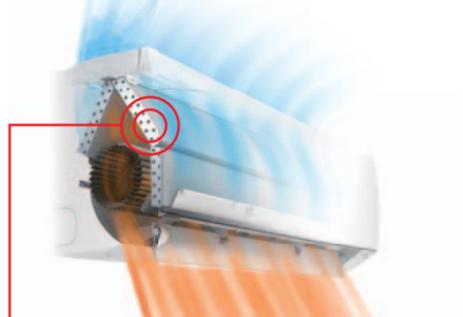
High density heat exchanger

ϕ5

Making the tube thin: **7 mm → 5 mm**
Increase of heat exchanger volume due to a high density and adopting sub heat exchanger

Even temperature
↓
Improved heat exchanger effectiveness

More comfortable 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

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 RESET **People come back.**

AUTO OFF → OFF

6 fan speed control

Multistep airflow control is possible to suit the environment.

Fan speed
Quiet

Low noise
24 dB(A)

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

* Compatible Remote Controller is as follows:
UTY-RNRYZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Optional parts

Wired remote controller: UTY-RNRYZ2
Wireless remote controller: UTY-LNHY
Simple remote controller: UTY-RSRY, UTY-RHRY

Specifications

| Model name			ASYA012GCAH	ASYA014GCAH	ASYE012GCAH	ASYE014GCAH
Power source			Single - phase, ~230V, 50Hz			
Capacity	Cooling	kW	3.6	4.0	3.6	4.0
	Heating		4.0	4.5	4.0	4.5
Input power		W	25	36	25	36
Airflow rate	High	m³/h	690	800	690	800
	Med-H		610	740	610	740
	Med		560	680	560	680
	Med-L		530	610	530	610
	Low		470	550	470	550
	Quiet		330	330	330	330
Sound pressure level	High	dB (A)	40	44	40	44
	Med-H		37	42	37	42
	Med		35	40	35	40
	Med-L		33	37	33	37
	Low		30	34	30	34
	Quiet		24	24	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)		12.7	12.7	12.7	12.7
Drain hose diameter (I.D./O.D.)			13.8 / 15.8 to 16.7			
EV Kit (option)			–	–	UTR-EV14XB	UTR-EV14XB

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

Dimensions (Unit: mm)

840   203   268

Wall Mounted

Models
ASYA18GBCH [NEW]
ASYA24GBCH [NEW]

Models
ASYA030GTAH [NEW]
ASYA034GTAH [NEW]

ASYA18　ASYA24

ASYA030　ASYA034

DC
FAN

Features

Powerful and comfortable airflow

Powerful airflow
(ASYA030GTAH)

Airflow
20% up!

Power diffuser
(ASYA18/24GBCH)

Vertical airflow (24)

Horizontal airflow (24)

33　32　31　30　29(°C)

15　16　17　18(°C)

Human sensor (ASYA030/034GTAH only)

A human sensor senses the movement of humans to reduce operation when no one is in the room. The wasteful consumption of energy is reduced automatically to assist in energy usage reduction.
(Available to wired remote controller as UTY-RNRYZ2)

Human sensor

SAVE!

AUTO RESET

Quiet operation and 6 fan speed control

Noise level is drastically reduced through the new airflow structure. Additionally, multistep quiet operation is available by 6 step sound level settings.
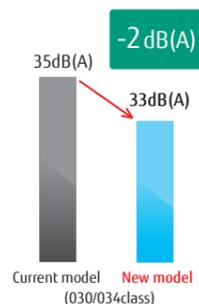
35dB(A)

−2 dB(A)

33dB(A)

Current model　New model
(030/034class)

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

* Compatible Remote Controller is as follows:
UTY-RNRYZ2 / UTY-RSRY / UTY-RHRY / UTY-DCGY / UTY-DTGYZ1 / UTY-ALGXZ1 / UTY-APGXZ1

Specifications

Model name			ASYA18GBCH	ASYA24GBCH	ASYA030GTAH	ASYA034GTAH
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-H		-	-	1,200	1,300
	Med		770	910	1,050	1,120
	Med-L		-	-	940	980
	Low		690	730	890	890
	Quiet		-	-	700	700
Sound pressure level	High	dB (A)	41	48	53	55 / 54
	Med-H		-	-	49	51
	Med		39	43	45	47
	Med-L		-	-	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: 7.5m; Height difference between outdoor unit and indoor unit: 0m. Voltage: 230V.

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

Models: ASYA030 / ASYA034
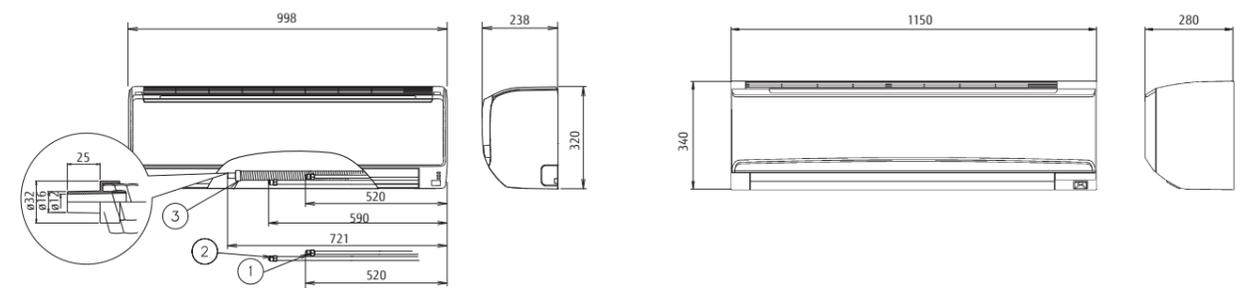
998　238

320

25
Ø32

520
590
721
520

1150　280

340

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

AIRSTAGE™
CONTROL SYSTEMS

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

A variety of air conditioning management options are available to match the requirements of the application, including integrating with the building control system, connecting with single split models and the availability of various interfaces.

CONTROL SYSTEM

CONTROL SYSTEM OVERVIEW

INDIVIDUAL CONTROLLER

CENTRALISED CONTROLLER

CONVERTOR / ADAPTOR

Office 01   Fri 10:00AM

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

Room Temp. 26.0°C

Status   Menu

AIRSTAGE™

OPTIMISED CONTROL SOLUTIONS

Fujitsu General provides a diverse range of flexible control solutions to suit a variety of applications .

SHOP

Type	Individual Control	Centralised Control			Integrating Control (Interface)		
	Wired Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor
	UTY-RNRYZ2, UTY-RNKYT	UTY-DCGY	UTY-DTGYZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX,
Automatic control of A/C (Schedule timer, Weekly timer etc.)	●	●	●	●			
Customise the level of control for staff and end users (RC Prohibition, Room temp set point limitation etc.)		●	●	●	●	●	●
Group control		●	●	●			
Advanced energy saving (Peak cut, Indoor unit rotation operation etc.)				●			
Remote management			●	●			
Manage multiple sites			●	●			
Monitor energy consumption				●			
Control third party products				●			
Integrate FGL A/C into BMS					●	●	●

HOTEL

Type	Individual Control			Centralised Control			Integrating Control (Interface)				
	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRYZ2, UTY-RNKYT	UTY-RSRY, UTY-RHRY	UTY-LNHY	UTY-DCGY	UTY-DTGYZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TEKX
Local control for hotel guest	●	●	●								
Centralised A/C control for common space				●	●	●	●	●	●	●	
Limited control for hotel guests				●	●	●	●	●	●	●	
Remote management					●	●					
Advanced energy saving (Peak cut, Indoor unit rotation operation etc.)						●	●				
Monitor energy consumption						●					
Control third party products						●					
Integrate FGL A/C into BMS							●	●	●	●	
Interlock with window contact											●
Interlock with key-card											●

OFFICE

Type	Individual Control			Centralised Control			Integrating Control (Interface)				
	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRYZ2, UTY-RNKYT	UTY-RSRY, UTY-RHRY	UTY-LNHY	UTY-DCGY	UTY-DTGYZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TEKX
Local control for office staff	●	●	●	●							
Automatic control of A/C (Schedule timer, Weekly timer etc.)	●		●	●	●	●	●				
Centralised A/C control for management				●	●	●	●	●	●	●	
Customise the level of control for office staff (RC Prohibition, Room temp set point limitation etc.)				●	●	●	●	●	●	●	
Advanced energy saving (Peak cut, Indoor unit rotation operation etc.)						●	●				
Remote management						●	●				
Energy charge apportionment						●	●*				
Monitor energy consumption						●					
Control third party products						●					
Integrate FGL A/C into BMS							●	●	●	●	
Interlock with door contact											●
Interlock with human sensor for meeting room											●

* UTY-ABGXZ1 only

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.

For Light Commercial
• Small VRF

For Commercial
• Large VRF

Air Conditioning
Individual Control

Wired Remote Controller
(Touch panel)
UTY-RNRYZ2

Wired Remote Controller
UTY-RNKYT

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

Wireless Remote Controller
UTY-LNHY

IR Receiver Unit
UTB-YWC For ducted type
UTY-LRHYB1 For cassette type

For ducted   For cassette

Air Conditioning
Centralised Control

Remote/
Monitoring side

Internet or Public Telephone Line

USB Adaptor *¹
(Field supplied)
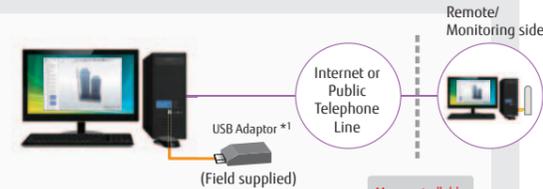
System Controller (Software)
UTY-APGXZ1 / UTY-ALGXZ1 (Lite edition)

Max. controllable
1600*
Indoor units

* Lite edition max. controllable 400 indoor units

Remote/
Monitoring side

Internet or LAN

Touch Panel Controller
UTY-DTGYZ1

Max. controllable
400
Indoor units

Central Remote Controller
UTY-DCGY

Max. controllable
100
Indoor units

Convertor / Adaptor
For external device

BACnet® Gateway
UTY-ABGXZ1 (Software)

NEW
BACnet® Gateway
UTY-VBGX (Hardware)

Network Convertor
(BMS/LonWorks®)
UTY-VLGX

MODBUS® Convertor
UTY-VMGX

KNX® Convertor For VRF
UTY-VKGX
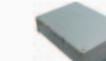
External Switch Controller
UTY-TEKX

BMS/BAS *²

BMS, Home automation system

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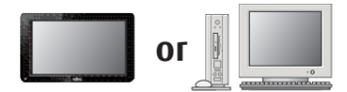
*1. USB Adaptor: Echelon® U10 USB Network Interface
*2. BMS/BAS: Building Management System/Building Automation System

Card-key
(Field supplied)

Convertor / Adaptor
For system expansion

Network Convertor
(DC power supply)
UTY-VTGX

Single split
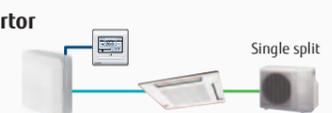
Network Convertor
UTY-VGGXZ1

Signal Amplifier
UTY-VSGXZ1

94

95
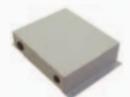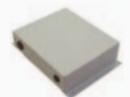
COMPARISON TABLE OF CONTROLLERS

Type	Wired Remote Controller (Touch panel)	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-RNRYZ2	UTY-RNKYT	UTY-RSRY	UTY-RHRY	UTY-LNHY	UTY-DCGY	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Max. controllable remote controller groups	1	1	1	1	1	100	400	400	1600
Max. controllable indoor units	16	16	16	16	16	100	400	400	1600
Max. controllable groups	–	–	–	–	–	16	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	●	–	–	–	–	–	●	–	–
Group setting	–	–	–	–	–	●	●	●	●
RC prohibition	–	–	–	–	–	●	●	●	●
Anti freeze setting	●	–	–	–	–	●	●	●	●
Set temp. auto return	●	–	–	–	–	–	●	–	–
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	●	–	●	●	–	–	●	–	–
Multi language	●	–	–	–	–	●	●	●	●
Summer time	●	–	–	–	–	●	●	●	●
Name registration	●	–	–	–	–	●	●	●	●
Backlight	●	–	●	●	–	●	●	–	–
2D floor layout / 3D building display	–	–	–	–	–	–	–	–	●
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	●	●	–	–	●	–	–	–	–
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	–	–	–	–	● 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. ●: Supported ○: Optional function –: Not supported yet

Wired Remote Controller (Touch Panel)

Max. controllable
16
indoor units

UTY-RNRYZ2

Easy operation with a high-definition large LCD touch panel screen

• Easy touch operation via the touch screen 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
• 12 different language settings
  (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 utilised via the controller.

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

Accurate and comfortable control

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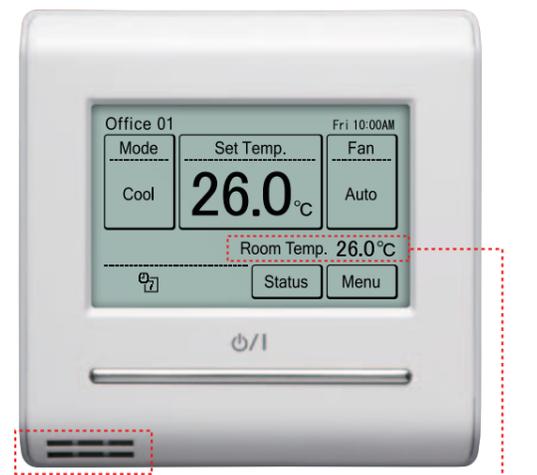
Room temperature sensor   Room temperature display

Backlight

• Backlight enables easy operation in a darkened room.
• The backlight setting can be adjusted for 30 or 60 seconds.
• Backlight activates whilst the controller is in use and turns off 30 or 60 seconds after user operation stops.

Various convenient functions

Displays setting status and limitations

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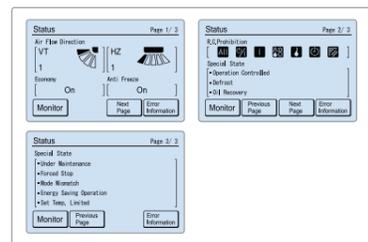
Summer time display

• This function can be set easily from the Menu screen
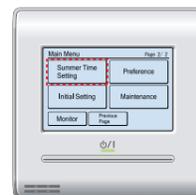
Child lock

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

Name registration

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

Various energy saving controls

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
Change over
Cooling Set Point
Heating Set Point
Change over
Room temperature
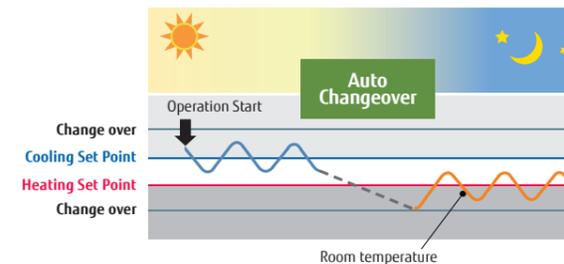
Auto OFF timer

• The indoor unit is automatically turned off when it reaches the preset operating time frame
• The time frame of the "Auto off timer" allows flexibility for setting and scheduling
• 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
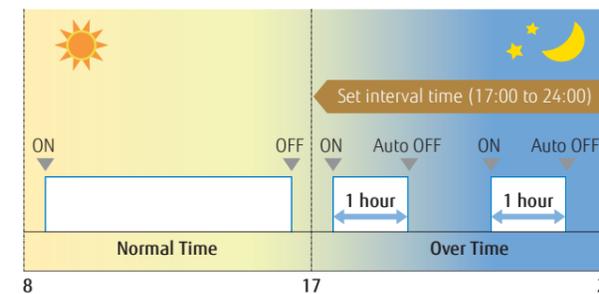
Ex.) a particular interval time hour (17:00 to 24:00) to prevent forgetting to turn off
Set off time: 1 hour

2 schedules weekly timer

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

Ex)

Set temperature auto return

• The setting temperature automatically returns to the previous temperatures setting
• The time range in which the set temperature can be changed is 10 to 120 minutes

Set temperature upper and lower limit settings

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

Simplified installation

Uses non polar 2 wire type

• Incorrect wiring can be prevented by using non-polar 2-wire

I.U. Y1 Y2 Y3   I.U. Y1 Y2 Y3
                  non-polar
                  2-wire
OK   OK
Y1   Y2   Y1   Y2
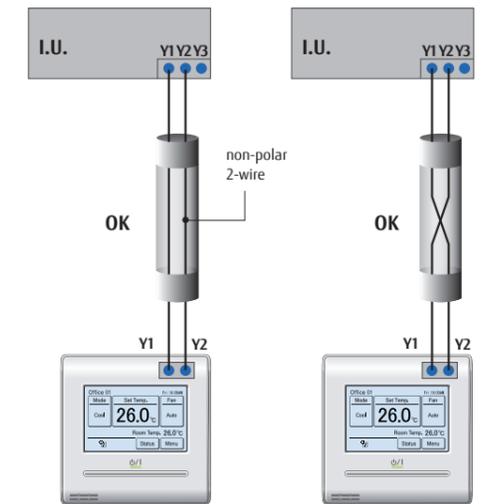
Auto address setting / setting position notification

• Reduces errors and install time compared with the current specification of using the Rotary SW
• When using the touch panel controller to control a remote controller group, new functionality enables the controller to set the respective RC addresses
• After the addresses are assigned these can be confirmed from the indoor unit

Address → 04   03   02   01

The appropriate indoor unit fan operates and the LED lamps blink.

05
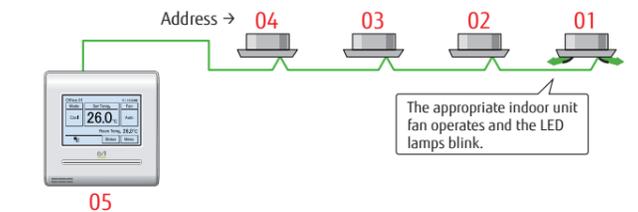
Easy maintenance

Error history display

• Errors that occur in the indoor unit or on the remote controller are saved in the error history
• A maximum of 32 error incidents can be saved

Specifications

Model name		UTY-RNRYZ2
Power supply		DC 12V
Dimensions (H x W x D)	mm	120 × 120 × 20.4
Weight	g	220

DC12V is supplied by indoor unit.

Wired Remote Controller

Max. controllable
16
indoor units

UTY-RNKYT

The room temperature can be controlled by detecting the temperature from the built-in sensor

• Simple operation with built-in weekly / daily timer
• Control up to 16 indoor units
• Up to 2 wired remote controllers can be connected to a single indoor unit

Functions

Powerful features and compact size

This wired remote controller incorporates four primary functions into a single unit.

Individual control + Thermo sensor + Weekly timer + Setback timer →

Accurate and comfortable

Indoor temperature can be detected by the inclusion of a thermo sensor within the body of the wired controller. This wired remote controller and the optional remote sensor allows flexibility in sensor location, suitable for a variety of applications.

Sensor part

Thermo sensor display

Control part for changing the thermo sensor

Example of changing sensor

Remote Sensor in the bedroom

Indoor unit

Day　Night

Wired remote controller

Remote sensor

The detecting point can be easily changed

Wired Remote Controller in the living room
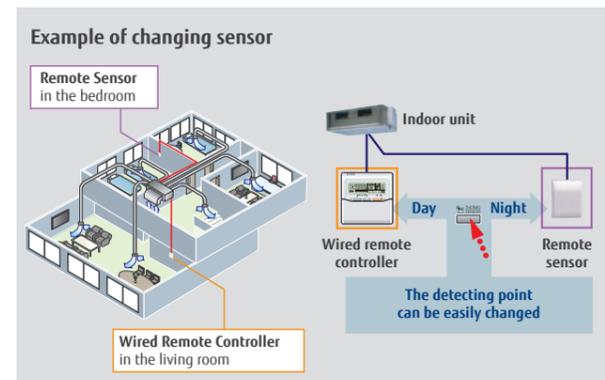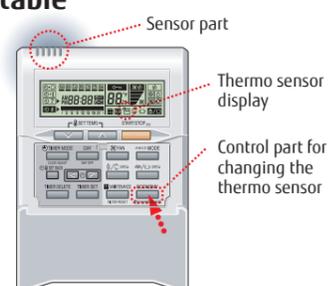
Displayed temperature is set temperature.

Built-in timers

Easy-to-understand time bar display

Weekly timer: Possible to set ON/OFF time to operate twice each day of the week.

Setup screen example
Set to Wednesday: 8:00 to 20:00.

24℃

0　3　6　9　12　15　18　21　T ime

Screen after setup

Setback timer: Possible to set temperature for two time spans and for each day of the week.

Setup screen example
Set from Sunday to Saturday: 12:00 to 15:00, 28℃.

28℃

0　3　6　9　12　15　18　21　T ime

At "weekly timer" + "set back timer" setup

24℃　28℃

0　3　6　9　12　15　18　21　T ime

24℃ ⟶ 28℃ ⟶ 24℃

Diagnosis check function

Two methods are available for determining the cause of failure in the event of a malfunction occurs:

• **Malfunction diagnosis function**
• **Error history (last 16 error codes can be accessed)**

Simple installation

Components are compatible with standard switch boxes.
Flat back surface allows to be installed wherever it is needed.

European mounting box　JIS built-in box

Specifications

Model name		UTY-RNKYT
Power supply		DC 12V
Dimensions (H x W x D)	mm	120 × 120 × 18
Weight	g	160

DC12V is supplied by indoor unit.

Simple Remote Controller

Max. 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 and simple operation buttons
• Backlight: White colored backlight on monitor enables easy operation in dark environments
• 2-wire type

UTY-RSRY　　UTY-RHRY
Without operation mode

Functions

Corresponding with various applications

• **Vertical louver control:**

Vertical air flow direction can be adjusted for Mini Duct & Slim Duct types using the auto louver option and also cassette types, to suit indoor units installed in applications such as hotels and conference rooms.

• **Room temperature set point limitation:**

The Simple Remote Controller can assist with management of energy usage in small buildings without the central control unit.

During Cooling

30℃
25℃
18℃

During Heating

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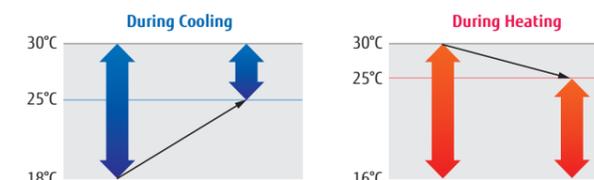
• **Built in room temperature sensor:**

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

Room temperature sensor
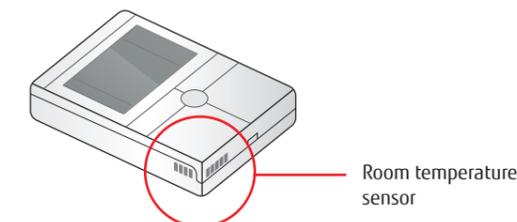
Specifications

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

DC12V is supplied by indoor unit.

Wireless Remote Controller

Max. 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 max. of 4˚C.

1˚C 2˚C 3˚C 4˚C
30min.
60min.
90min.
Timer setting

Easy operation with multiple indoor units

The code selector switch prevents indoor unit from unintended control. (Up to 4 codes can be set.)

Confusion

Code change

A B C D
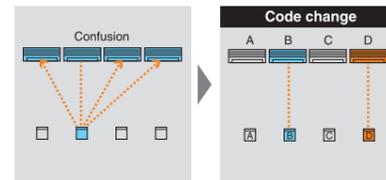
Wide and precise

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
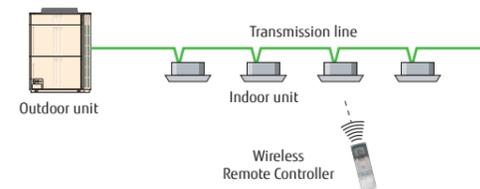
IR Receiver Unit

UTB-TWC

Option required to control ducted type units* via a Wireless Remote Controller
*Only the Large Airflow Duct cannot be connected to the IR Receiver Unit.

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

Functions

Wiring connection

Wireless
Remote Controller

IR Receiver Unit

Duct Type Indoor Unit
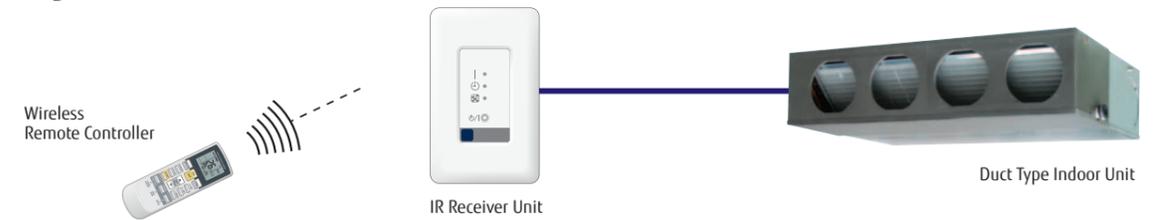
Specifications

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

IR Receiver Unit

UTY-LRHYB1

Cassette type indoor units can be controlled
with the Wireless Remote Controller

Functions

Wireless
Remote Controller
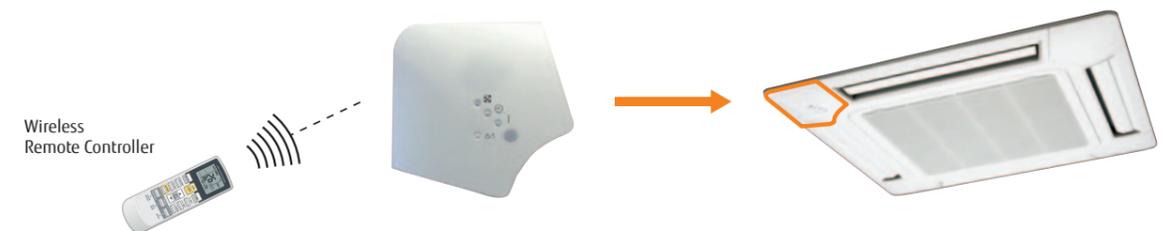
Specifications

Model name		UTY-LRHYB1
Power supply		DC 5V
Dimensions (H x W x D)	mm	193.9 × 193.9 × 31.2
Weight	g	140

Central Remote Controller

Max. controllable
100
indoor units

Max. controllable
16
groups

UTY-DCGY

Central control of small and medium sized buildings and tenancies. The operation status of all connected indoor units can be viewed easily on a large LCD monitor to simplify individual control to batched control.

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

Functions

System overview

- Allows multiple indoor units to be grouped (Max.16 groups controlled)
- Interlock with external devices

Group : Hallway

Group : 3F

Group : Division A   Group : Division B   Group : Division C

Group : 2F

Group : Tenant A   Group : Tenant B   Group : Tenant C

Emergency stop function
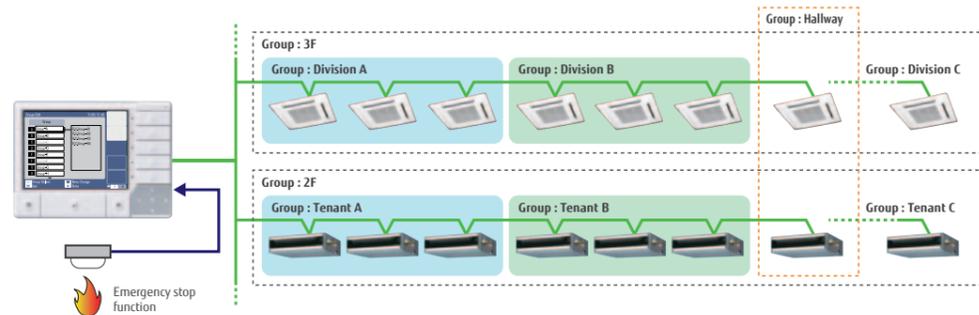
Functions

- Diverse control of indoor units
- Remote controller prohibition (All, ON / OFF, Mode, Temp, Timer, Filter)
- Weekly timer
- Error history
- Automatic clock adjustment

Easy installation

- The control panel and power supply unit can be installed separately
- For flexibility in installation, the control can be installed in a separate or integrated fashion
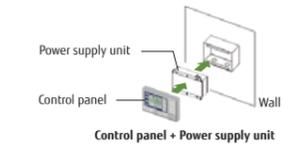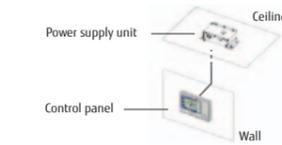
- Automatic or manual indoor unit registration

Setting pattern 1

Power supply unit

Control panel

Wall

Control panel + Power supply unit

Setting pattern 2

Ceiling

Power supply unit

Control panel

Wall

Indoor unit registration

Indoor unit registration start

Indoor unit registration finish
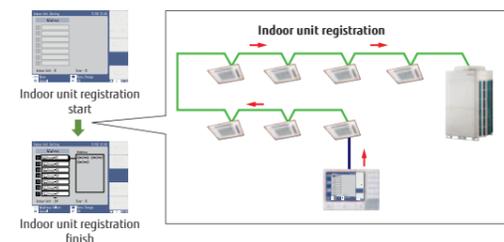
Specifications

Model name		**UTY-DCGY**	
		Control Panel	Power Supply Unit
Power supply		DC 5 V	100-240V, 50-60Hz, Single phase
Dimensions (H x W x D)	mm	120 x 162 x 25.7	99 x 135 x 39.2
Weight	g	308	355

Touch Panel Controller

Max. controllable	Max. controllable	Max. controllable
400	**100**	**400**
indoor units	outdoor units	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

Control and monitoring from anywhere

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

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 from anywhere

• 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

Operation mode setting

PC

LAN or Internet

VRF network system

Not only operations but also detail 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
iphone7 (iOS 10.1)	Safari 10

Tablet

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

Flexible access permissions with individual user levels

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

🔒 **ON/OFF** prohibition

Monitoring from website

⭕ Operation ON

Administrator

✖ Operation ON

Staff / Employee
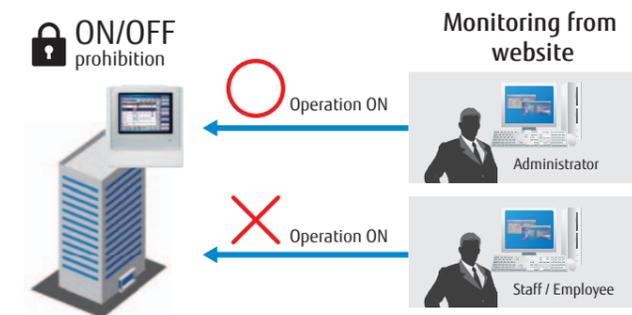
Additional language functionality

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.
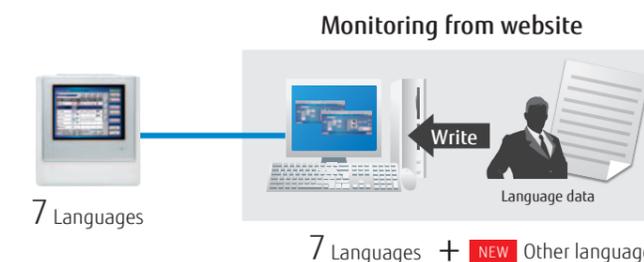
Monitoring from website

7 Languages

Write

Language data

7 Languages + NEW Other languages

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

Tenant A

Tenant B

Block (Tenant) A

Block (Tenant) B

Signal line*

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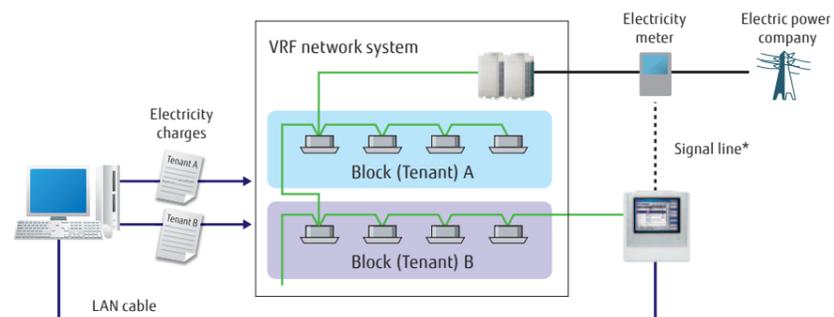
*: Electricity meter (1unit) can be connected to external input connector of the TPC unit.
In this case, electricity meter cannot be connected to outdoor unit simultaneously.

Automatic summer time setting

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
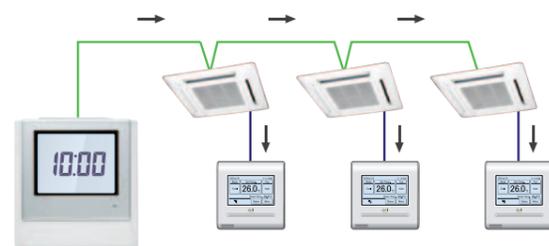
Outdoor low noise operation

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

Operating sound

58dB

0

down

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

Change over

Cooling Set Point

Heating Set Point

Change over

Room temperature

FUNCTIONS SUMMARY

Air conditioning control function	UTY-DTGYZ1	Monitoring side
On / Off	●	●
Operation mode setting	●	●
Fan speed setting	●	●
Room temp. setting	●	●
Room temp. set point limitation	●	●
Test operation	●	●
Up/down air direction flap setting	●	●
Right/left air direction flap setting	●	●
Individual louver control	●*1	●
Group setting	●	●
RC prohibition	●	●
Anti freeze setting	●	●
Set temp. auto return	–	●
Various energy saving 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	●	●
Multi language	●	●
Summer time	●	●
Time zone setting	●	●
Name registration	●	●
Backlight	●	●
Language setting	7	7+other

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

*1 Only setting cancellation can be operated.
*2 This function is available only through external input control.

Timer		UTY-DTGYZ1	Monitoring side
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	UTY-DTGYZ1	Monitoring side
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	●	●

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

System Controller (Software)

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

UTY-APGXZ1

System Controller offers the advanced integrated monitoring and control of the VRF network system from small 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 the air conditioning control function, central remote control, electricity charge calculation, schedule management and energy saving functions ensure the building manager and owner needs are met

System Controller Lite (Software)

Max. controllable	Max. controllable	Max. controllable
1	**400**	**100**
VRF network system	indoor units	outdoor units

UTY-ALGXZ1

System Controller Lite has functions suited for air conditioning 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 and Operate**: The property is shown visually from the perspective most suitable for operation and operated accordingly (Click and Operate). You can select from among the 4 displays of site, building, floor, or list.

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

Click & Operate the whole building !

Properties can be shown using one of the four displays of site, building, floor, or list.

Click & Operate any specified unit(s)!

The display is easily changed by pressing the button.

Site view

List view

Batched control of freely defined groups

Batched control of freely selected units

Building view

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

Click & Operate the whole floor !

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

Floor view

Click & Operate the unit !

Batched control of freely selected units

3rd party devices connected by Modbus can be controlled

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

When a Modbus Adaptor (locally purchased) is connected to PC, the devices supported by Modbus can be controlled from a central location.
Electricity usage can be reduced by enabling all unrequired devices to be turned off or scheduled to turn off at the end of the day.

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 unit system
Supply & Exhaust fan
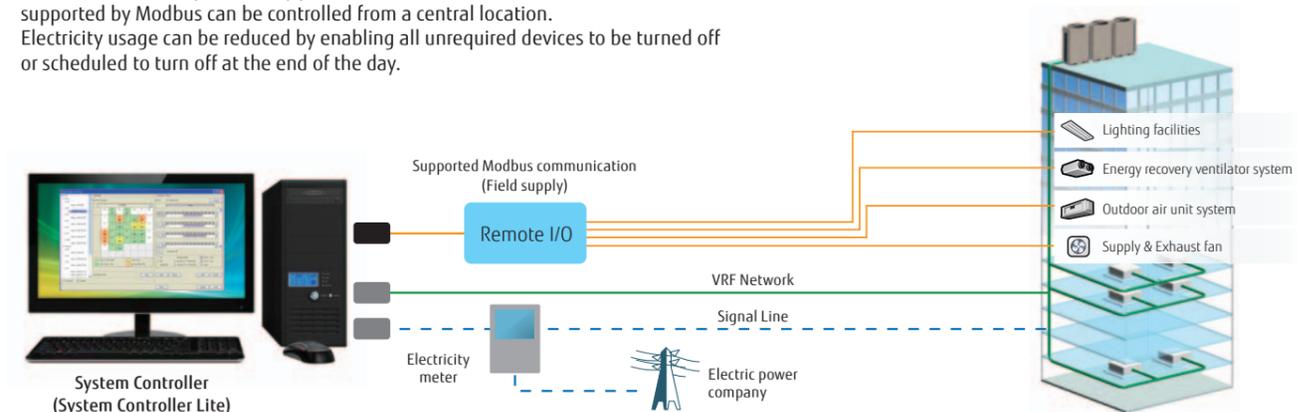
Diverse operation management and data management

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
• Allows programming of special settings for holidays, including public holidays, for a complete year
• Low noise operation of the outdoor unit can be scheduled

Diverse control of indoor and outdoor unit

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

Remote controller prohibition

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

Automatic clock adjustment

The time setting for each controller can be set centrally with one command.

### Error display and email notification

Errors are notified with a popup message, audible sound and email real time when the error occurs. Errors for the past year are logged and can be reviewed at anytime.

Data base import/export

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

Operating and control record

Displays the history of operation status and control.

Web Operation

PC and smartphones can be used as a simple remote controller.

ON/OFF
Temperature setting
Check remaining amount*2
Mode setting
Fan speed
Louver setting

*2: prepaid AC function

WAN*1

Wi-Fi

LAN (Intranet)

HUB

Wireless LAN access point

System Controller

PC

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

Functions

Electricity charge apportionments^

`Standard` for System Controller   `Option` for System Controller Lite UTY-PLGXA2
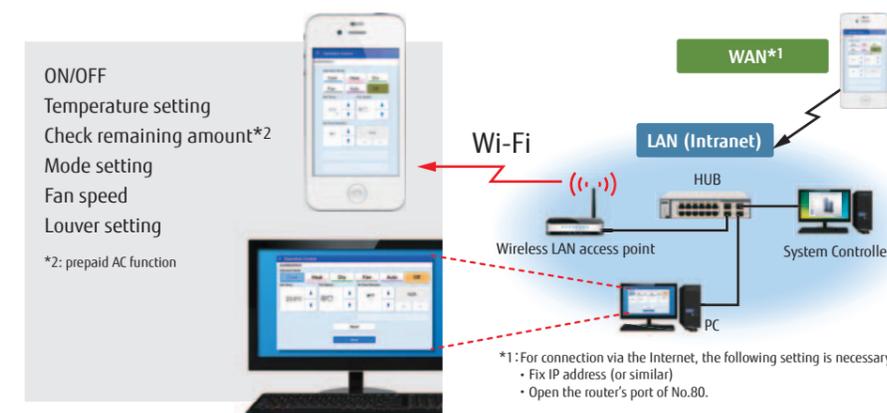
Electricity charge apportionment calculation framework

Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With the electricity charge apportionment function, the used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units within each tenancy. 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 on the right)
The detailed calculation takes into consideration variables such as unused rooms and nighttime electricity charges and shows them in the charge calculation sheet.

System Configuration Example

Electric power company
Electricity charges (air conditioning)
RB Unit   Signal transmission line
System Controller
Power distribution board
Outdoor unit
Power distribution board
3Ø, 4 wire 400V, 50Hz
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
1Ø, 2wire 230V, 50Hz

Remote management

`Standard` for System Controller   `Option` for System Controller Lite UTY-PLGXA2
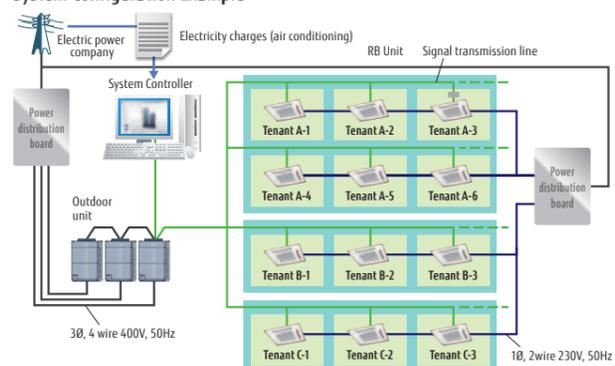
The System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 software applications working together. VRF Controller runs on site and communicates with the VRF system. VRF Explorer runs remotely and provides user interface and communicates with the VRF Controller. VRF Controller and the VRF Explorer program may operate on a single PC or on different PCs separated by a network. By using VRF Explorer software, one PC can perform central control of 10 VRF system sites with a 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).

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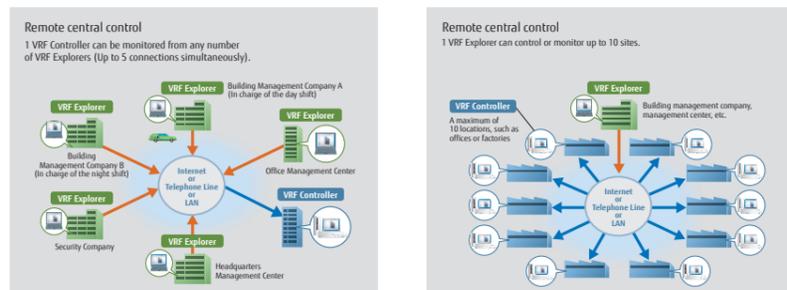
Energy saving management

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

A variety of energy saving operations can be set and managed depending on the season, weather, and time period.

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

Energy Saving Management Main Screen
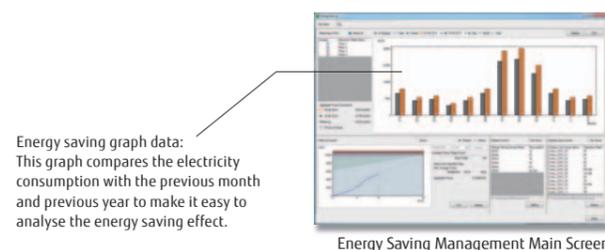
#### Peak cut operation

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

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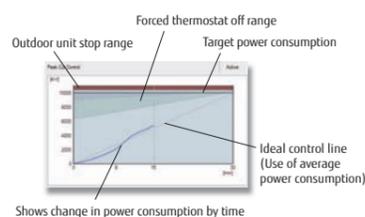
Indoor unit rotation operation

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

Indoor unit rotation screen
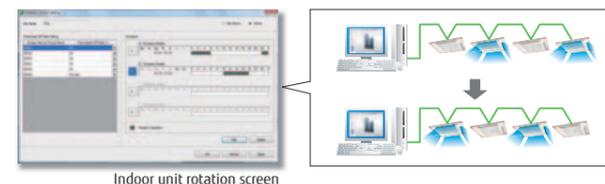
Outdoor unit capacity save

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

Hot day of summer
Cold day of winter
Outdoor unit capacity control screen
Outdoor unit capacity upper limit
Power consumption
Time
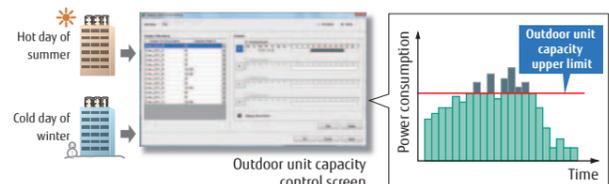
FUNCTIONS SUMMARY

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 specifications	Max. VRF networks supported	4	—	1	—	—	—	—
	Max. indoor unit / remote controller groups per VRF network	400	—	400	—	—	—	—
	Max. outdoor units per System controller	100	—	100	—	—	—	—
	Max. indoor units / remote controller groups per System controller	1600	—	400	—	—	—	—
	Max. outdoor units per System controller	400	—	100	—	—	—	—
Site supervision	Multi site display	10	—	10	—	—	—	—
	Number of building / 1 site	20	—	—	—	—	—	—
	Number of floor per 1 site	200	—	—	—	—	—	—
	Number of floor per 1 building	50	—	—	—	—	—	—
	3D graphical layout view	●	—	—	—	—	—	—
	2D graphical layout view	●	—	—	—	—	—	—
	List display	●	—	●	—	—	—	—
	Tree display	●	—	●	—	—	—	—
	Group display	●	—	●	—	—	—	—
Error management	Error notification	●	—	●	—	—	—	—
	Audible alarm	●	—	●	—	—	—	—
	Error email 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	●	—	●	—	—	—	—
		Test operation	●	—	●	—	—	—	—
		Antifreeze	●	—	●	—	—	—	—
		Outdoor unit low noise setting	●	—	●	—	—	—	—
	Individual management	Remote control prohibition setting	●	—	●	—	—	—	—
		Temperature upper and lower limit setting	●	—	●	—	—	—	—
		Filter sign reset	●	—	●	—	—	—	—
	Other	Memory operation	●	—	●	—	—	—	—
		Pattern operation	●	—	●	—	—	—	—
		Web operation	●	—	●	—	—	—	—
Schedule	Annual schedule	●	—	●	—	—	—	—
	Special day setting	●	—	●	—	—	—	—
	On /off per day	72	—	72	—	—	—	—
	On / off per week	504	—	504	—	—	—	—
	Day off	●	—	●	—	—	—	—
	Min. unit of timer setting (Minutes)	10	—	10	—	—	—	—
	Low noise mode weekly schedule	●	—	●	—	—	—	—
Remote management	Remote monitoring	●	—	—	●	—	—	—
	Remote operation control	●	—	—	●	—	—	—
	Remote function setting	●	—	—	●	—	—	—
	Web remote controller	●	—	—	●	—	—	—
Electricity charge apportionment	Apportionment charge/bill calculation	●	—	—	—	●	—	—
	Tenant (block) setting	●	—	—	—	●	—	—
	Common facilities apportionment setting	●	—	—	—	●	—	—
	Rated power consumption allotment setting	●	—	—	—	●	—	—
	Individual calculation at cooling and heating	—	●*	—	—	●	—	—
	Electricity meter supported	—	●	—	—	●	—	—
Energy saving management	Indoor unit rotation	—	●	—	—	—	●	—
	Peak cut control	—	●	—	—	—	●	—
	Outdoor unit capacity save	—	●	—	—	—	●	—
	Record of energy saving operation	—	●	—	—	—	●	—
	Energy saving information	—	●	—	—	—	●	—
	Power consumption monitor	—	●	—	—	—	●	—
	Electricity meter supported	●	—	—	—	—	—	—
External Device Control	Monitor	●	—	—	—	—	—	●
	Control	●	—	—	—	—	—	●
Others	Database import/export	●	—	—	—	—	—	—
	Automatic clock adjustment	●	—	●	—	—	—	—
	Multi language	7 languages	—	7 languages	—	—	—	—

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

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

	System Controller	System Controller Lite
Operating system	• Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish	
CPU	Intel® CoreTM i3 2 GHz or higher	
Memory	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8.1, and Windows® 10)	
HDD	40 GB or more of free space355	
Display	1024 x 768 or higher resolution	
Interface	•Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line) •USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller) - Maximum of 2 USB ports are required for WHITE-USB-KEY/WibuKey connection - Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface * Maximum number of required USB port depends on the applicable system configuration.	•Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line) •USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller) - Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connection - 1 USB port is required for Echelon® U10 USB Network Interface * The maximum number of required USB port depends on the applicable system configuration.
Graphic accelerator	Microsoft® DirectX® 9.0c compatible	
Software	Adobe® Reader® 9.0 or later	

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

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

*1: Software protection key to be inserted in a USB slot running System Controller or System Controller Lite.
    System Controller or System Controller Lite may only run on a PC with WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.
^ The electricity charge apportionment function does not calculate official electricity charges like those established by the laws and regulations of each country.

BACnet® Gateway

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

UTY-ABGXZ1

- Enables the connection of 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 and 100 outdoor units for one network system) can be connected to one BACnet® Gateway
- Control or monitor VRF network system from BMS via BACnet® Gateway
- Compatible with BACnet® (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet
- Scheduling, alarm and event functions as well as Electricity Change Apportionment function are provided in the BACnet® Gateway
- The connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface and personal computer are field supplied items
- Available for use in 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish

WHITE-USB-KEY
(Software Protection Key)

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

Functions

Installation example

VRF network system 1

Indoor unit   Outdoor unit

VRF network system 2

Indoor unit   Outdoor unit

USB adaptor*1 (Field supplied)

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 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel® CoreTM i3 2 GHz or higher
Memory	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8.1, and Windows® 10)
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	• Ethernet port (for getting access to the Internet using LAN) • USB ports (Maximum of 5 ports) - 1 USB port is required for WHITE-USB-KEY/WibuKey connection - Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface * Maximum number of required USB ports depends on the applicable system configurations.
Software	Adobe® Reader® 9.0 or later
•Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)	

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)

| Max. controllable 1 VRF network system	Max. controllable 32 refrigerant system	Max. controllable 128 indoor units

NEW UTY-VBGX

- BACnet® Gateway enables connection between the 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-135-2010) application specific controller (B-ASC)
- Compatible with BACnet®/IP over Ethernet

Functions

Installation example

BACnet® Operator Workstation (B-OWS)

Controller

Lighting facilities

Security system

Automatic fire alarm interface

Window blinds

BACnet®

BACnet® Gateway (Hardware)

Max.128 indoor units & Max.32 refrigerant system

VRF Indoor unit

VRF Indoor unit

VRF Outdoor unit
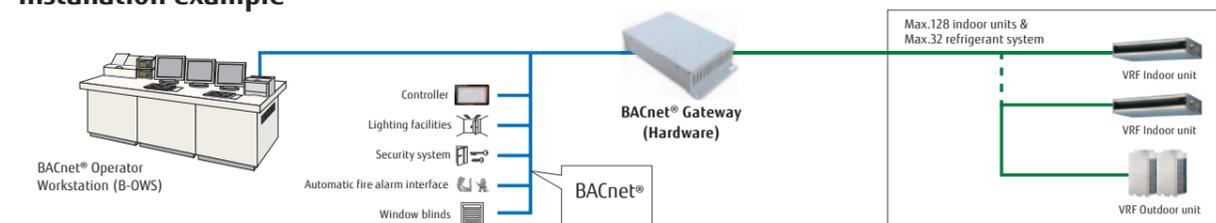
Specifications

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 network	4

Model name		UTY-VBGX
Power supply		208-240V 50/60Hz, single phase
Power consumption	W	-
Dimensions (H x W x D)	mm	260 × 59 × 145
Weight	g	-

Network Convertor for LonWorks®

Max. controllable 4 Units to BMS	Max. controllable 128 indoor units	Max. controllable 100 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 systems
- The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS® interface
- Up to 128 indoor units can be connected to one Network Convertor for LONWORKS®

Functions

Installation example

General-purpose building control computer (LonWorks® device)

Controller

Lighting facilities

Security system

Automatic fire alarm interface

Window blinds

Network Convertor for LonWorks®

LonWorks® Network

Max.128 indoor units & Max.100 outdoor units

VRF Indoor unit

VRF Indoor unit

VRF Outdoor unit
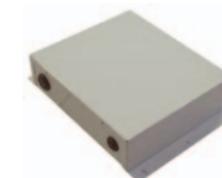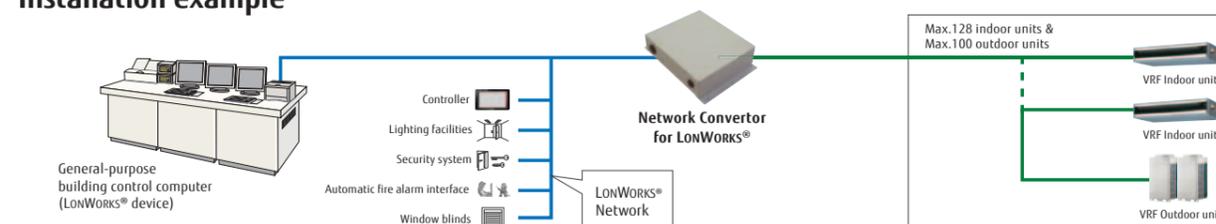
Specifications

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

Transmission specifications (BMS side)

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

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MODBUS® Convertor

| Max. connectable	Max. controllable	Max. controllable
9	**128**	**100**
units to one VRF	indoor units	outdoor units

UTY-VMGX

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

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

Functions

BMS/Central Controller

Controller
Lighting facilities
Security system
Automatic fire alarm interface
Windows blinds

* BMS : Bulding Management System

MODBUS Convertor for VRF

VRF System (Lon Network)
VRF Indoor unit
VRF Indoor unit
VRF Outdoor unit
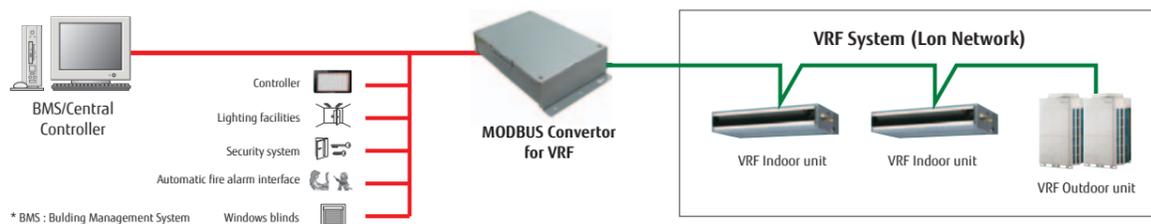
Specifications

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

Network Convertor

Max. controllable	Max. controllable
16	**100**
single indoor units	Network Convertors

UTY-VTGX (DC power supply type)

The Network Convertor offers a total solution for multiple air conditioning systems to be controlled.

Functions

Solutions for multiple air conditioning systems

- The converter is required when connecting single units to a VRF network system
  Administrator can perform total management of single units with a centralised VRF controller

Single unit with VRF

VRF network System

Network Convertors
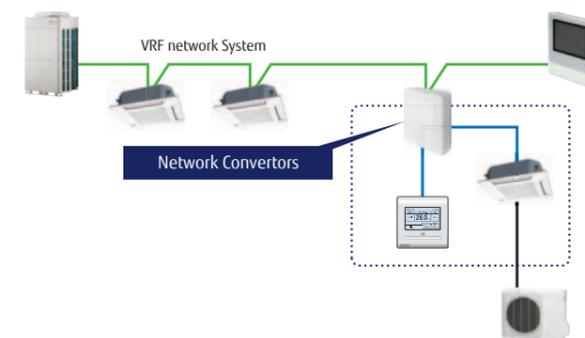
Single split type unit management

VRF network System

Max Network Convertors in one VRF network system: 100
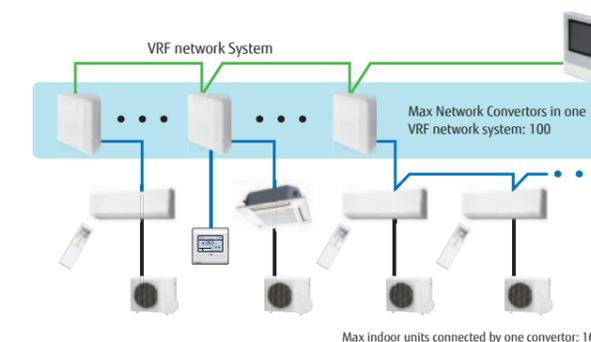
Max indoor units connected by one convertor: 16

Solutions for easy installation

DC power supply type can be powered by indoor unit. No power supply construction for convertor.
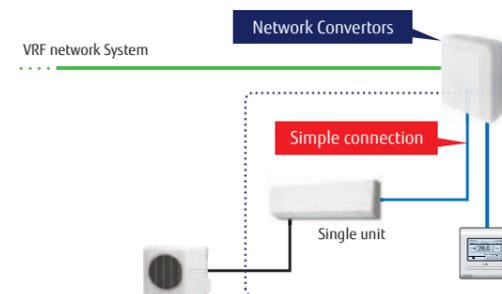
The new convertor is light weight and compact reducing the installation space required.

Easy wiring

VRF network System

Network Convertors

Simple connection

Single unit

Design flexibility

Size
85% REDUCTION

Weight
250 g

Previous model
288
140
117 40
211
67
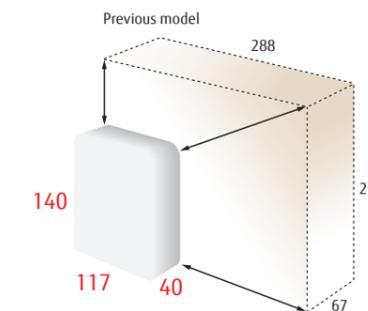
Specifications

Model name		UTY-VTGX	
Power supply		polar 3 wire DC12V	non polar 2 wire DC12V
Input power	W	Max. 1.2	
Dimensions (H x W x D)	mm	43 × 117 × 140	
Weight	g	250	

KNX® Convertor (for VRF)

Max. controllable	Max. controllable
128	**100**
indoor units	outdoor units
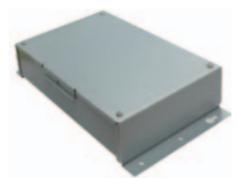
UTY-VKGX

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

• The new KNX Convertor enables connection of the central / home controller and FG VRF system
• A maximum of 128 indoor units and 100 outdoor units can be connected to a single KNX Convertor

Functions

KNX Convertor for VRF   **VRF network**

Central / Home Controller

Registerable
128 indoor units
100 outdoor units
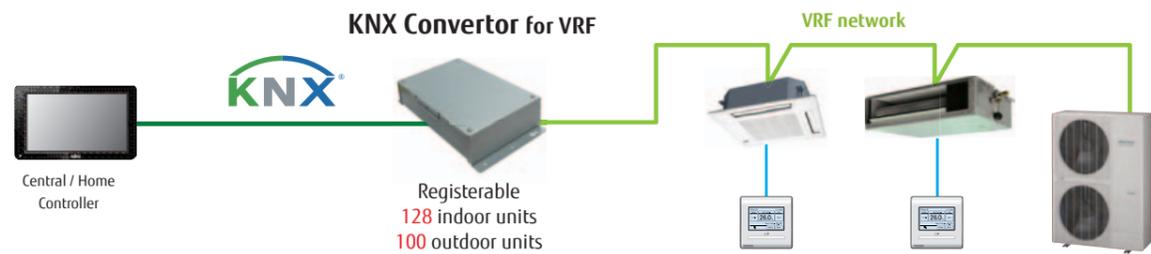
Specifications

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

Network Convertor

| Max. controllable	Max. controllable
16	**4**
Single indoor units	Group Remote Controllers
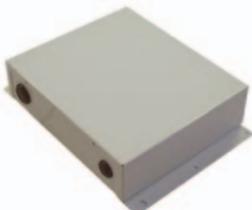
UTY-VGGXZ1

• This Network Convertor used for connecting single split systems to the VRF network system

Functions

Used for connecting single split systems to the VRF network

• Split type systems can be centrally controlled from a central controllor or System Controller with connection to the VRF via a network convertor
• ON / OFF Control, Master control, Room temperature and Fan speed setting via the Network Convertor are available
• One Network Convertor can be used to connect and control up to 16 single units

Network Convertor

Single Split

Group of Single Split

VRF network system

USB Adaptor

System Controller

Big Multi
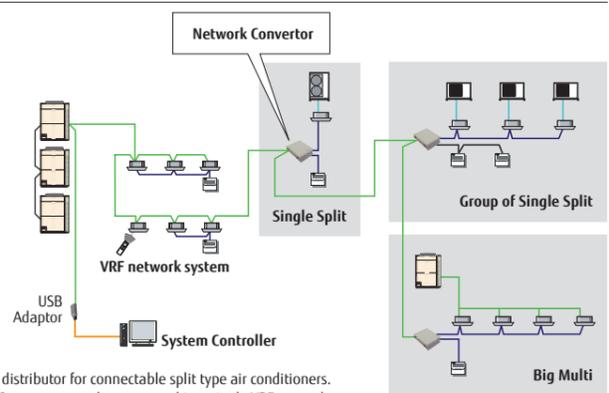
Please consult your distributor for connectable split type air conditioners.
Up to 100 Network Convertors may be connected in a single VRF network system.
One Network Convertor is considered as a single refrigerant system, irrespective of the number of connected single models.
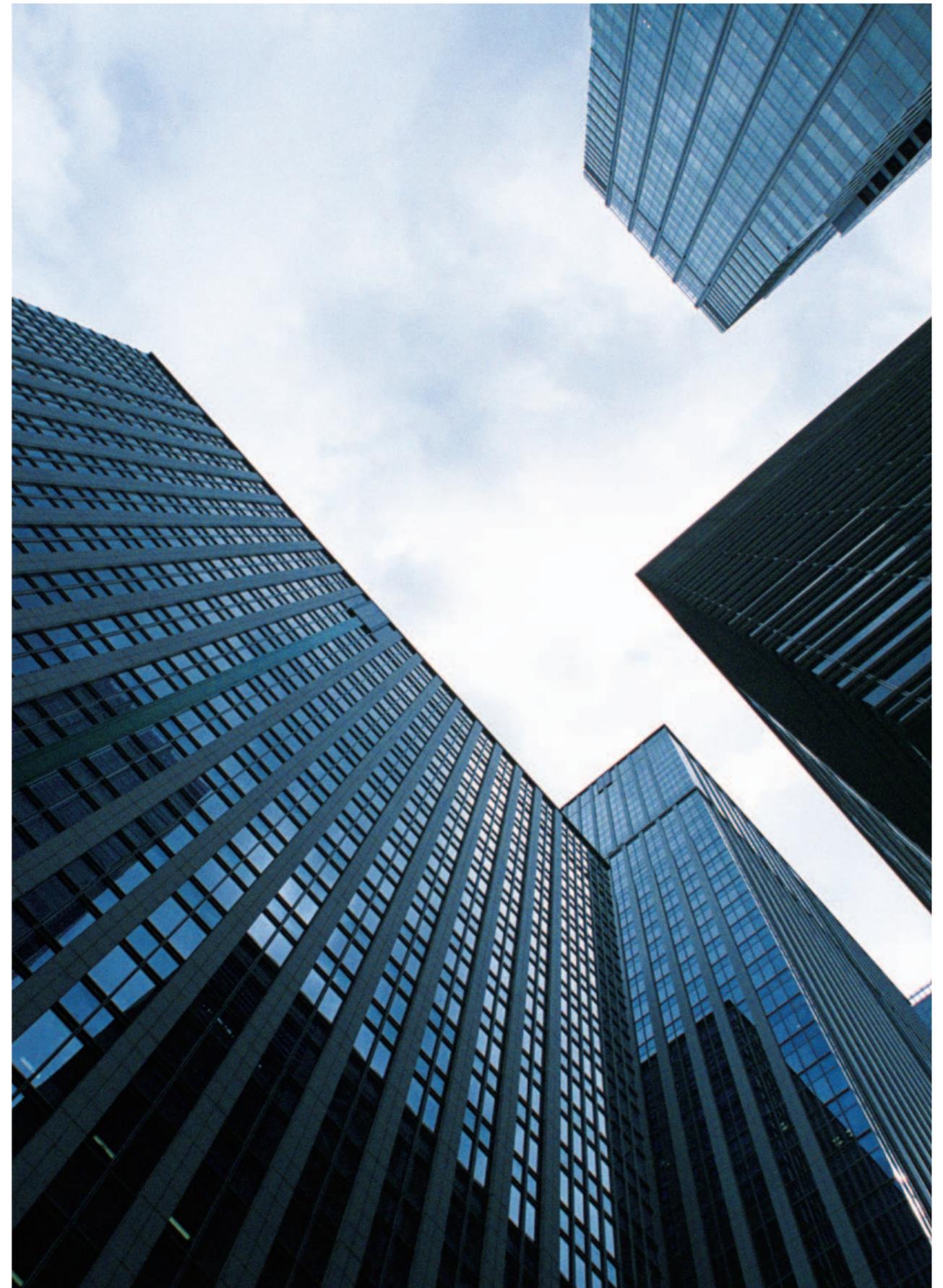
External Switch Controller

UTY-TEKX

Air conditioner settings switching can be controlled by connecting additional sensor switches

• In combination with a field supplied 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 in hotel rooms
• Card key or other sensor switches are available as a field supplied parts

Functions

Installation example

Auto mode operation, which switches the cooling and the heating automatically,
is enabled by using the sensor switch and external switch controller.

Note: All indoor units will operate in the same mode.

T1 = ON, T2 = OFF

Sensor SW
(Field supplied)

⇐ To individual dry contact   External Switch Controller (UTY-TEKX)

Room temp.

T1

Cooling

T2

Heating

Time
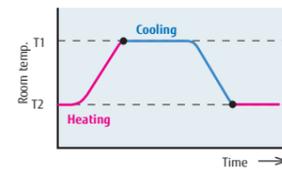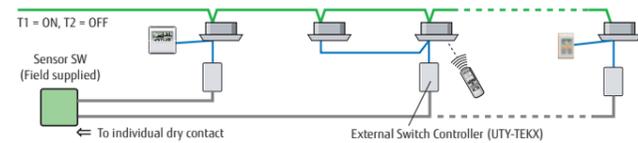
Note 1. Please choose a thermosensor switch
         which can be set up for T1 and T2.
Note 2. The remote controller's operation is prior
         to the auto mode operation.

Electrical wiring

Card-key

Indoor
Unit   Card-key
                                        (Field
                                        supplied)
External Switch Controller

Sensor SW

Indoor
Unit   Sensor SW
                                        (Field
                                        supplied)
External Switch Controller
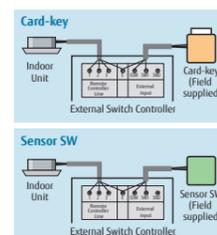
Specifications

Model name		UTY-TEKX
Power supply		DC 12V
Dimensions (H x W x D)	mm	120 × 75 × 30
Weight	g	100

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

B

C

A

D

Signal Amplifier   AB+BD+BC＜500m
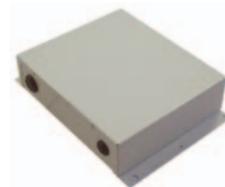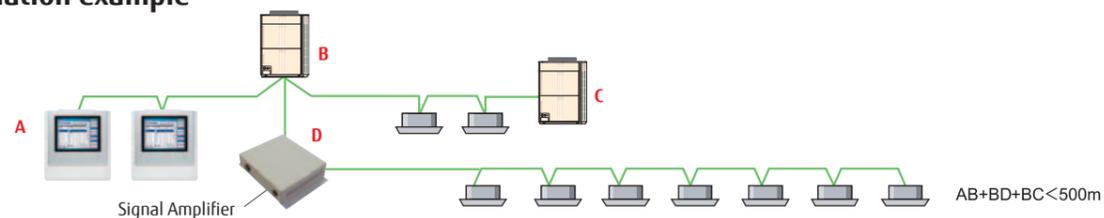
Specifications

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
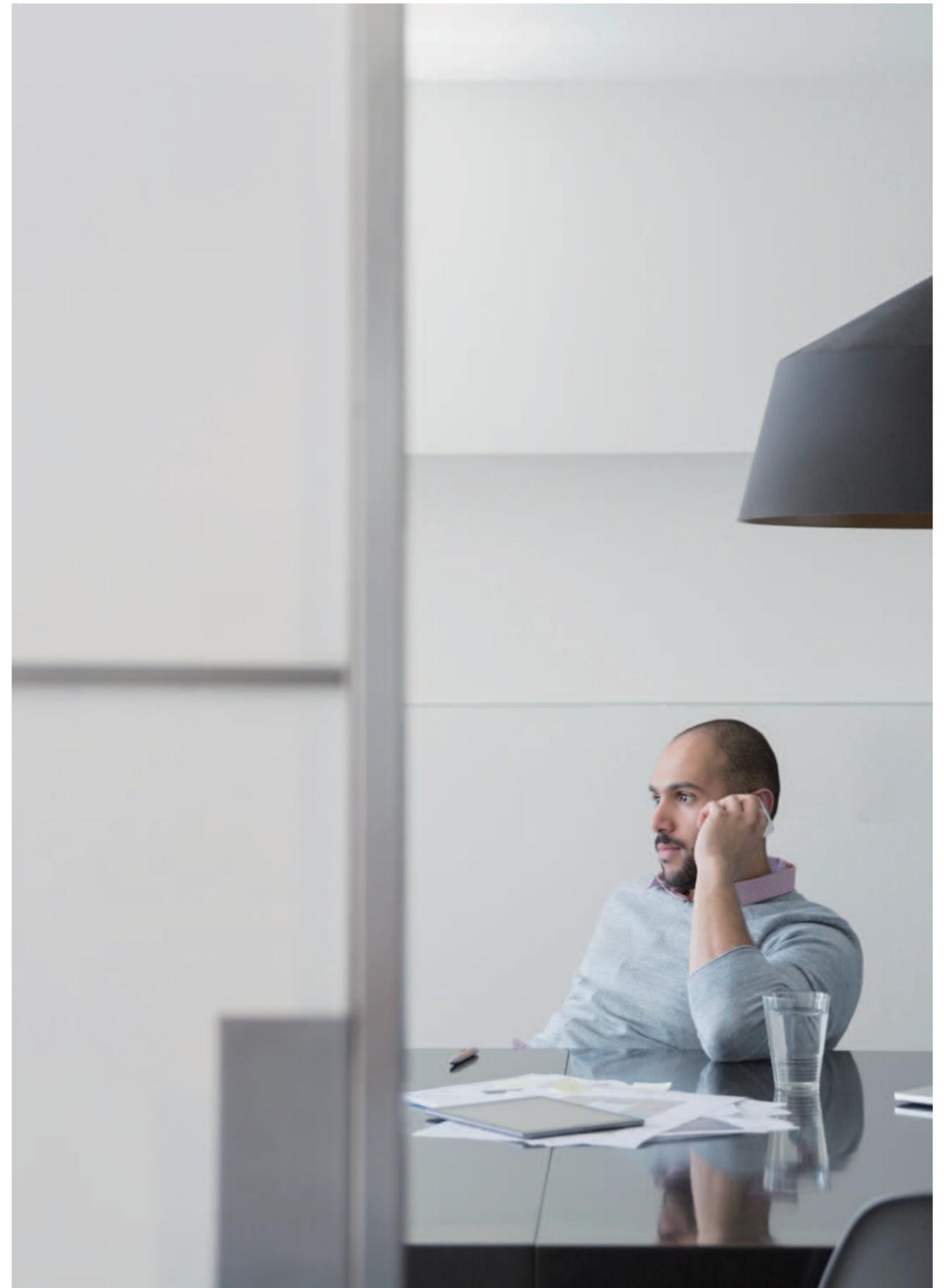
VENTILATION

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 created by conveniently selecting whether to use heat exchange or normal ventilation setting according to the requirements of the conditioned space.

Energy Recovery Ventilator
Outdoor Air Unit

Energy Recovery Ventilator Range

Airflow rate (m³/h)	250	350	500	800	1000
Model code	025	035	050	080	100
Energy Recovery Ventilator	NEW UTZ-BD025C	NEW UTZ-BD035C	NEW UTZ-BD050C	NEW UTZ-BD080C	NEW UTZ-BD100C

Outdoor Air Unit Range

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

AIRSTAGE™

Energy Recovery Ventilator

Models
UTZ-BD025C `NEW`
UTZ-BD035C `NEW`
UTZ-BD050C `NEW`
UTZ-BD080C `NEW`
UTZ-BD100C `NEW`

UTZ-BD025C   UTZ-BD035C   UTZ-BD050C

Controller

UTZ-BD080C   UTZ-BD100C

Features

Heat exchange ventilation and normal ventilation

Heat exchange ventilation
When a room is cooled or heated, the exhausted cooling / heating energy is recovered through heat exchange ventilation.

Normal ventilation
The operation is used during periods when the room space requires no cooling or heating effect, i.e. when there is minimal temperature difference between the indoor and outdoor environments.

Adopts a highly efficient counter flow heat exchange element

Exhaust air   Outside air   Heat exchanger

Room air   Supply air
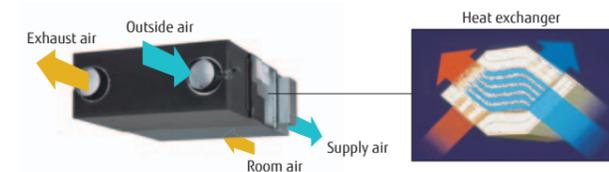
Energy efficiency and ecology

Energy consumption is dramatically reduced by using a counterflow heat exchange element. The air conditioning load is reduced by approximately 20%, resulting in significant energy savings and recovers up to 77% of the heat in the outgoing air.

Energy saving 20%

Features of the heat exchange element

With the cross-flow element, air moves in a straight line across the element. With the counter-flow element , air flows through the element for a longer time (longer distance), so the heat exchange effect remains unchanged.

Other element
(Cross-flow element)

Fujitsu element
(Counter-flow element)

Reverse mountable direct air supply / exhaust system

Adoption of straight air supply / exhaust system:

The duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in the reverse position, only one inspection hole is needed for two units:

Two units can share one inspection hole so duct work is easier and more flexible.

Room air   Supply air   Room air
Inspection cover
Straight unit   Reverse mounted unit
Inspection hatch
Exhaust air   Outside air   Exhaust air

Quiet operation

Significantly reducing low pressure loss and noise allows low noise operation.

Slim shape and easier installation

A counter flow heat exchange element is used for reduced noise and a slimmer, more compact body shape.

Height **270mm**
UTZ-BD025C

Height **317mm**
UTZ-BD035C/BD050C

Height **388mm**
UTZ-BD080C/BD100C

Improved Static Pressure

Static pressure is improved by adopting a powerful fan motor allowing use for these units in a wide variety of building types.

Easy remote operation

• Power: ON / OFF
• Air volume: High/Low
• Heat exchange / Normal ventilation
• ON / OFF Timer
• Clean filter display

Specifications

(Tentative)

Rated flow rate			250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h
Model name			UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
Power source			220 - 240V, 50Hz				
HEAT EXCHANGE VENTILATION	Input power	Extra high / High / Low W	128 / 123 / 96	190 / 185 / 168	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	Extra high / High / Low m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	Extra high / High / Low Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Temperature exchange efficiency	Extra high / High / Low %	75 / 75 / 77	75 / 75 / 78	75 / 75 / 76	75 / 75 / 76	75 / 75 / 79
	Energy exchange efficiency cooling	Extra high / High / Low %	63 / 63 / 65	66 / 66 / 71	62 / 62 / 64	65 / 65 / 68	65 / 65 / 70
	Energy exchange efficiency heating	Extra high / High / Low %	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76
	Sound pressure level	Extra high / High / Low dB*	31.5 / 30.5 / 26.5	33.0 / 31.0 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37.0 / 34.5	38.5 / 37.5 / 34.5
NORMAL VENTILATION	Input power	Extra high / High / Low W	128 / 123 / 96	190 / 185 / 175	289 / 225 / 185	418 / 378 / 295	464 / 432 / 311
	Air flow rate	Extra high / High / Low m³/h	250 / 250 / 190	350 / 350 / 240	500 / 500 / 440	800 / 800 / 630	1000 / 1000 / 700
	External static pressure	Extra high / High / Low Pa	105 / 95 / 45	140 / 60 / 45	120 / 60 / 35	140 / 110 / 55	105 / 80 / 75
	Sound pressure level	Extra high / High / Low dB*	31.5 / 30.5 / 26.5	33.0 / 31.0 / 25.5	38.5 / 38.0 / 32.5	37.5 / 37.0 / 34.5	40.5 / 39.5 / 36.5
Dimensions (W × D × H)		mm	882 × 599 × 270	1050 × 804 × 317	1090 × 904 × 317	1322 × 884 × 388	1322 × 1134 × 388
Weight		kg	29	49	57	71	83
Outlet duct diameter		mm	150	150	200	250	250
Operation range		°C	-10 to 40	-10 to 40	-10 to 40	-10 to 40	-10 to 40
Maximum humidity		%	85	85	85	85	85

* The noise level must be measured 1.5m below the centre of the unit.

Dimensions (Unit: mm)

A   G   H
D
EA
B   C
F
D
OA
E
G
Maintenance opening
Maintenance space   K
O N M   M

	UTZ-BD025C	UTZ-BD035C	UTZ-BD050C	UTZ-BD080C	UTZ-BD100C
A	810	978	1018	1250	1250
B	599	804	904	884	1134
C	315	580	640	428	678
D	142	112	132	228	228
E	600	600	600	600	600
F	655	860	960	940	1190
G	19	19	19	19	19
H	270	317	317	388	388
I	135	159	159	194	194
J	159	182	182	218	218
K	882	1050	1090	1322	1322
L	414	470	470	612	612
M	95	70	70	85	85
N	Ø164	Ø164	Ø210	Ø258	Ø258
O	Ø144	Ø144	Ø194	Ø242	Ø242

Outdoor Air Unit

Models
ARXH054GTAH
**ARXH072GTAH**
ARXH096GTAH

ARXH054

ARXH072

ARXH096

Features

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

An outdoor air unit can be connected in the same VRF*1 system as the indoor units and can create fresh and comfortable air supply together through our highly advanced technology.

*1. Connectable VRF series: J-IIS, J-III, V-II, V-III, J-IIIL and VR-II
OAU is prohibit to connect under the ambient temperature of 40°C or higher.

Outdoor Air Unit

VRF system

Duct

Indoor unit

Indoor unit

Fan

Heat Exchanger

Outdoor Air Unit

Fresh Air

Fresh Air

Wired R.C.

Wired R.C.

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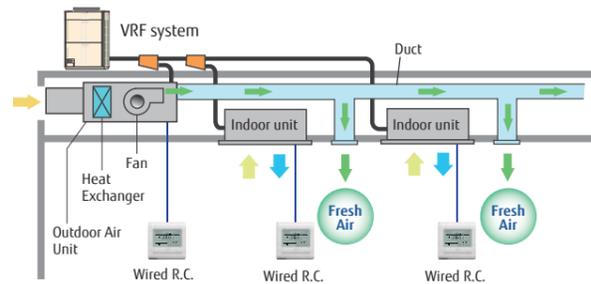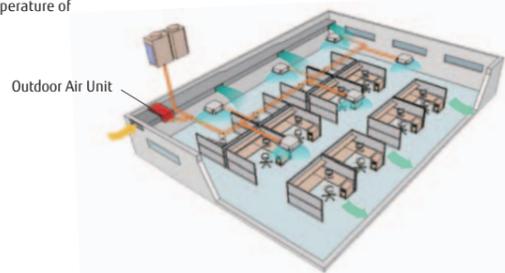
* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, the Outdoor Air Unit connection capacity becomes 30% or less of the outdoor unit capacity.

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

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

054 / 072 type

096 type

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

50 to 240 Pa (096 type)

(When external static pressure is small)

(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)
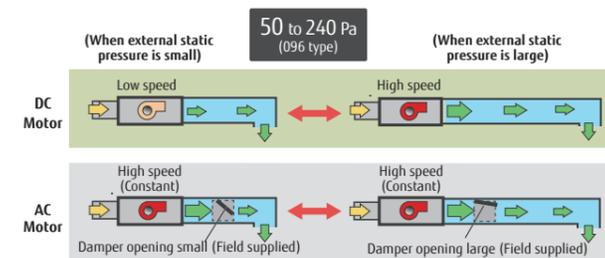
Compact design

- A lightweight compact design at just 425 mm in height and 55 kg in weight for ARXH072 type. This unit can be installed easily even within a narrow space.

55 kg (072 type)

1367 mm

425 mm

572 mm

(ARXH072 type)
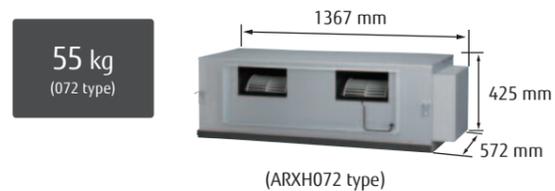
Various controllers

A variety of optional controllers are available, such as individual controllers, central controllers and building management controllers.

Individual Controllers

Wireless Remote Controller

Simple Remote Controller

Wired Remote Controller

Wired Remote Controller (Touch Panel)

Central Controllers

Group Remote 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			1000 m³/h	1500 m³/h	2000 m³/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		m³/h	1,080	1,680	2,100
Static pressure	Standard (range)	Pa	185 (50-185)	200 (50-200)	200 (50-240)
Sound pressure level		dB(A)	42	44	47
Dimensions (H × W × D)		mm	425 × 1,367 × 572	425 × 1,367 × 572	450 × 1,583 × 700
Weight		kg	48	55	71
Connection pipe diameter	Small	mm	9.52	12.70	12.70
	Large		19.05	22.22	22.22
Operation 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: 7.5m Voltage: 240V.

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
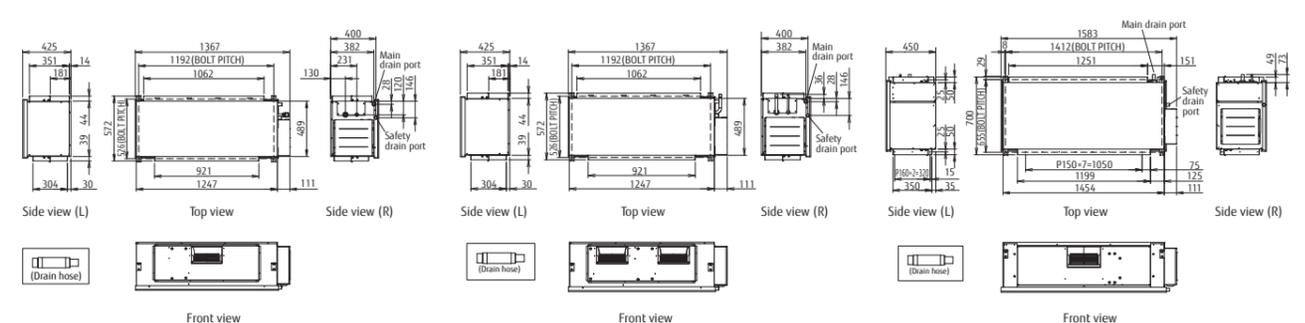
AIRSTAGE™ OPTIONS

Auto Louver Grille Kit (Option)

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

Closed louver   Opened louver
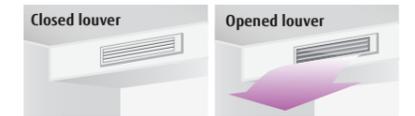
Features

Flexible Control

Operation with indoor unit

The Auto Louver can be operated via the remote controller of the indoor unit.

Up and down auto swing

• Auto airflow direction and auto swing
• 4 steps selectable

Auto closing louver

When the operation of the indoor unit is stopped, the louver will automatically close.

Duct type   Auto Louver Grille

Wired Remote Controller   Wireles Remote Controller

Dimensions

W2   Fitting frame   Grille

H1   H2

W1   D1   D2
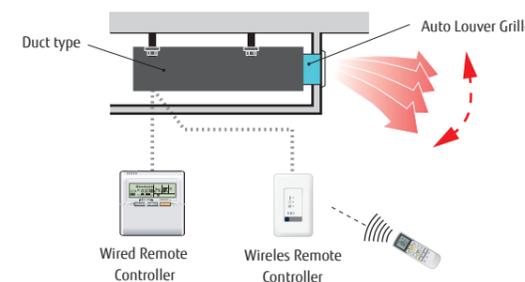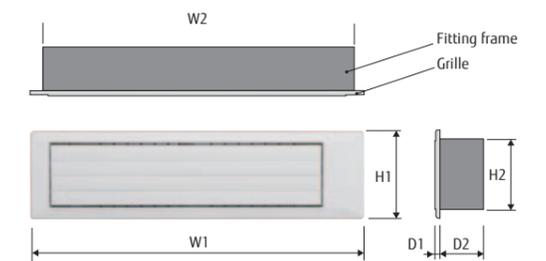
Unit: mm

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

Specifications

Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W
Applicable indoor units			ARXD07/09/12/14GALH ARXK07/09/12/14GCLH	ARXD18GALH ARXK18GCLH	ARXD24GALH ARXK24GCLH
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 frame, etc.		
Operation range	Cooling	°C	18 to 32		
		% RH	80% or less		
	Heating	°C	16 to 30		

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

OPTIONAL PARTS LIST

Controllers / Interface

Type		4-way Compact AUXB07/09/12/14/18/24 GALH	4-way AUXD18/24 GALH	AUXA18/24/30/34/36/45/54GALH	AUXM018/024/030GLAH	AUXK018/024/030/034/036/045/054GLAH	Circular Flow	Mini (With drain pump) ARXX07/09/12/14/18/24 GCLH	Slim (With drain pump) ARXD07/09/12/14/18/24 GALH	Medium Static Pressure ARXA24/30/36/45 GBLH	High Static Pressure ARXC36GBTH, ARXC36/45/60 GATH	— ARXC72/90/96 GATH	AGYA007/009/012/014 GCAH	EEV external AGYE007/009/012/014 GCAH	Ceiling/Floor ABYA12/14/18/24 GATH	Ceiling ABYA30/36/45/54 GATH	— ASYA007/009 GTAH	EEV external ASYE007/009 GTAH	— ASYA012/014 GCAH	EEV external ASYE012/014 GCAH	— ASYA18/24 GBCH	— ASYA030/034 GTAH
Controllers	Wired Remote Controller										UTY-RNRYZ2											
											UTY-RNKYT											
	Simple Remote Controller (2-wire type)										UTY-RSRY, UTY-RHRY											
	Wireless Remote Controller										UTY-LNHY											
	Central Remote Controller										UTY-DCGY											
	Touch Panel Controller										UTY-DTGYZ1											
	System Controller, System Controller Lite										UTY-APGXZ1, UTY-ALGXZ1											
Interface	BACnet Gateway										UTY-ABGXZ1, UTY-VBGX											
	Network Convertor for LONWORKS										UTY-VLGX											
	MODBUS Convertor		UTY-VMGX	UTY-VMGX				UTY-VMGX			UTY-VMSX UTY-VMGX	UTY-VMGX		UTY-VMSX UTY-VMGX			UTY-VMGX		UTY-VMGX			
	KNX Convertor		UTY-VKGX	UTY-VKSX UTY-VKGX				UTY-VKGX			UTY-VKSX UTY-VKGX	UTY-VKGX		UTY-VKSX UTY-VKGX			UTY-VKGX		UTY-VKGX			
	External Switch Controller										UTY-TEKX											

Others

Type		4-way Compact AUXB07/09/12/14/18/24 GALH	4-way AUXD18/24 GALH	AUXA18/24/30/34/36/45/54GALH	AUXM018/024/030GLAH	AUXK018/024/030/034/036/045/054GLAH	Circular Flow	Mini (With drain pump) ARXX07/09/12/14/18/24 GCLH	Slim (With drain pump) ARXD07/09/12/14/18/24 GALH	Medium Static Pressure ARXA24/30/36/45 GBLH	High Static Pressure ARXC36GBTH, ARXC36/45/60 GATH	— ARXC72/90/96 GATH	AGYA007/009/012/014 GCAH	EEV external AGYE007/009/012/014 GCAH	Ceiling/Floor ABYA12/14/18/24 GATH	Ceiling ABYA30/36/45/54 GATH	— ASYA007/009 GTAH	EEV external ASYE007/009 GTAH	— ASYA012/014 GCAH	EEV external ASYE012/014 GCAH	— ASYA18/24 GBCH	— ASYA030/034 GTAH
Others	IR Receiver Unit		UTY-LRHYB1		UTY-LBHXD			UTB-TWC														
	Human Sensor Kit		UTY-SHZXC																			
	Remote Sensor Unit						UTY-XSZX															
	Cassette Grille	UTG-UFYD-W	UTG-UGYA-W		UTG-UKYC-W																	
	Auto Louver Grille Kit					UTD-GXTA-W UTD-GXTB-W(18) UTD-GXTC-W(24)																
	Long Life Filter									UTD-LF25NA	UTD-LF60KA											
	Flange									UTD-SF045T UTD-RF204						UTD-RF204						
	Drain Pump Unit									UTZ-PX1NBA						UTR-DPB24T						
	Wide Panel		UTG-AKXA-W UTG-AGYA-W		UTG-AKXA-W																	
	Panel Spacer		UTG-BKXA-W UTG-BGYA-W		UTG-BKXA-W																	
	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	UTZ-KXRA																	
	Half Concealed Kit													UTR-STA								

OPTIONAL PARTS

Controllers

For Individual Control

Wired Remote Controller (Touch Panel)
UTY-RNRYZ2

Wired Remote Controller
UTY-RNKYT

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-TWC
For ducted types

IR Receiver Unit
UTY-LRHYB1
For Cassette type

Human Sensor Kit
NEW UTY-SHZXC
For Circular Flow Cassette type

For Centralised Control

Central Remote Controller
UTY-DCGY

Touch Panel Controller
UTY-DTGYZ1
Option
UTY-PTGXA

System Controller Lite Software
UTY-ALGXZ1
Option
UTY-PLGXR2
UTY-PLGXA2
UTY-PLGXE2
UTY-PLGXX2

System Controller Software
UTY-APGXZ1
Option
UTY-PEGXZ1

Convertors / Adaptors

For External Device

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

BACnet® Gateway
NEW UTY-VBGX Hardware

Network Convertor for LONWORKS®
UTY-VLGX

MODBUS® Convertor for VRF
UTY-VMGX
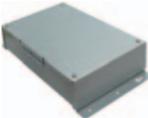
KNX® Convertor for VRF
UTY-VKGX

For System Expansion

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

Network Convertor
UTY-VGGXZ1
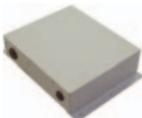
External Switch Controller
UTY-TEKX

Signal Amplifier
UTY-VSGXZ1
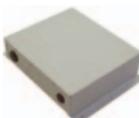
Panels

For Cassette Type

Cassette Grille
UTG-UFYC-W
For Compact Cassette type

Cassette Grille
UTG-UGYA-W
For Cassette type
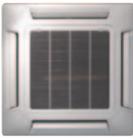
Cassette Grille
NEW UTG-UKYC-W
For Circular Flow Cassette type

OPTIONAL PARTS

For Duct Type

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

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

Remote Sensor Unit
UTY-XSZX
For All Duct type

Long-Life Filter
UTD-LF25NA   UTD-LF60KA
For Medium Static   For High Static
Pressure Duct type   Pressure Duct type

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

Drain Pump Unit
UTZ-PX1NBA
For Medium Static Pressure Duct type

For Cassette Type

Wide Panel
UTG-AKXA-W
For Cassette type

Indoor unit 950
Panel 600
600   (mm)
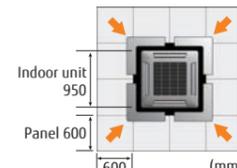
Panel Spacer
UTG-BGYA-W
For Cassette type
(mm)
50
Panel spacer
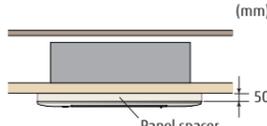
Insulation Kit for High Humidity
UTZ-KXRA
For Cassette type

UTZ-KXGC
For Compact Cassette type
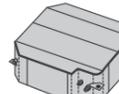
Fresh Air Intake Kit
UTZ-VXAA   UTZ-VXRA
For Compact   For Cassette type
Cassette type

Air Outlet Shutter Plate
UTR-YDZB
For Compact Cassette type
Shuts the 4th outlet when installed in a 3 outlet directional air flow scenario.

Air Outlet Shutter Plate
UTR-YDZK
For Cassette type
Shuts the 4th outlet when installed in a 3 outlet directional air flow scenario.

## For Ceiling Type

Drain Pump Unit
UTR-DPB24T
For Ceiling type

For Floor Type

Half Concealed Kit
NEW UTR-STA
For Floor type
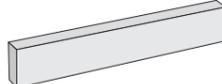
Others

Communication system: External Connect Kit

For Indoor unit

UTY-XWZXZ7	UTY-XWZXZD
UTY-XWZXZB	UTY-XWZXZE
UTY-XWZXZC	

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

For RB unit
UTY-XWZXZ6
UTY-XWZXZB

For Central Remote Controller
UTY-XWZXZ7
UTY-XWZXZ8
UTY-XWZXZA

For Touch Panel Controller
UTY-XWZXZA

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

Type		Indoor unit						Outdoor unit		Controller		Other
		Cassette	Duct					VR-II	V-III	Central Remote Controller	Touch Panel Controller	RB Unit
		4-way Compact, 4-way, Circular Flow	Mini (With drain pump), Slim (With drain pump), Medium Static Pressure, High Static Pressure	Floor, Floor EEV external	Ceiling / Floor	Ceiling	Wall Mounted, Wall Mounted EEV external	AJTA72/A90GALH, AJT108/126GALH, AJT144GBLH	AJY 072/090/108/ 126/144 LALBH	UTY-DCGY	UTY-DTGYZ1	UTP-RX01AH UTP-RX01BH UTP-RX01CH UTP-RX04BH
Input Function	Operation / Stop		● UTY-XWZXZD ○ UTY-XWZXZB									
	All ON / All OFF									● UTY-XWZXZ7 ○ UTY-XWZXZ8	●*2 ○*2	
	Batch Stop							● UTY-XWZXZ6				
	Forced Stop		● UTY-XWZXZD ○ UTY-XWZXZB									
	Emergency Stop		● UTY-XWZXZD ○ UTY-XWZXZB					● UTY-XWZXZ6		● UTY-XWZXZ7 ○ UTY-XWZXZ8	●*2 ○*2	
	Forced Thermostat Off		● UTY-XWZXZE ○ UTY-XWZXZ7									
	Low Noise Mode Operation							● UTY-XWZXZ6				
	Cooling / Heating Priority							● UTY-XWZXZ6				● UTY-XWZXZ6 ○ UTY-XWZXZB
	Outdoor Unit Operation Peak Control							● UTY-XWZXZ6				
	Power Usage Information from Electricity Meter							● UTY-XWZXZF			●*2 ○*2	
Output	Operation Status		● UTY-XWZXZC					○ UTY-XWZXZ6			○ UTY-XWZXZA	
	Error Status		● UTY-XWZXZC					○ UTY-XWZXZ6			○ UTY-XWZXZA	
	Indoor Unit Fan Operation Status		● UTY-XWZXZC									
	Auxiliary Heater Output	● UTY-XWZXZC										
	Base Heater							● UTY-XWZXZ9				

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

● : Dry Contact   ○ : Apply Voltage

OPTIONAL PARTS

Connection Units

Separation Tube

UTP-AX054A	UTP-AX090A	UTP-AX180A	UTP-AX567A
Gas Pipe	Gas Pipe	Gas Pipe	Gas Pipe
Liquid Pipe	Liquid Pipe	Liquid Pipe	Liquid Pipe

UTP-BX090A	UTP-BX180A	UTP-BX567A	
Suction Gas Pipe	Suction Gas Pipe	Suction Gas Pipe	
Discharge Gas Pipe	Discharge Gas Pipe	Discharge Gas Pipe	
Liquid Pipe	Liquid Pipe	Liquid Pipe	

Header

UTR-H0906L / UTR-H1806L	UTR-H0908L / UTR-H1808L	UTP-J0906A / UTP-J1806A	UTP-J0908A / UTP-J1808A
Gas Pipe	Gas Pipe	Suction Gas Pipe	Suction Gas Pipe
Liquid Pipe	Liquid Pipe	Discharge Gas Pipe	Discharge Gas Pipe
		Liquid Pipe	Liquid Pipe

Outdoor Unit Branch Kit

UTP-CX567A	UTP-DX567A		
Gas Pipe	Suction Gas Pipe		
	Discharge Gas Pipe		
Liquid Pipe	Liquid Pipe		

EV Kit

Model code ≦ 09 : UTR-EV09XB
Model code ≧ 12 : UTR-EV14XB
For Compact Wall Mounted type

Model code ≦ 09 : UTR-EV09XB
Model code ≧ 12 : UTR-EV14XB
For Compact Floor type

RB Unit

UTP-RX01AH / UTP-RX01BH / UTP-RX01CH
Single type

UTP-RX04BH
Multi type

Specifications

Separation Tube

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

Model name		UTP-BX090A (for VR-II)	UTP-BX180A (for VR-II)	UTP-BX567A (for VR-II)
Total cooling capacity of indoor unit	kW	28.0 or less	28.1 to 56.0	56.1 or more

Header

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

Model name	3-6 Branches	UTP-J0906A (for VR-II)	UTP-J1806A (for VR-II)
	3-8 Branches	UTP-J0908A (for VR-II)	UTP-J1808A (for VR-II)
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-II)	UTP-DX567A (for VR-II)
Model name	2 outdoor units	1	
	3 outdoor units	2	

EV Kit

Model name	UTR-EV09XB		UTR-EV14XB	
Application model	ASYE004GTAH ASYE007GTAH ASYE009GTAH	AGYE004GCAH AGYE007GCAH AGYE009GCAH	ASYE012GCAH ASYE014GCAH	AGYE012GCAH AGYE014GCAH

RB Unit

Model name		Single type			Multi type
Number of outdoor units		UTP-RX01AH	UTP-RX01BH	UTP-RX01CH	UTP-RX04BH
Power source	V/Ø/Hz	230 / 1 / 50			
Input power	W	17	24	31	96
Number of branches		1	1	1	4
Maximum capacity of connectable indoor units(Q)	kW	Q ≦ 8.0	Q ≦ 18.0	Q ≦ 28.0	Q ≦ 56.0*[1]
Maximum capacity of connectable indoor units per branch(Q)	kW	Q ≦ 8.0	Q ≦ 18.0	Q ≦ 28.0	Q ≦ 18.0
Maximum number of connectable indoor units per branch		3	8	8	8
Dimensions (H × W × D)	mm	198 × 298 × 268	198 × 298 × 268	198 × 298 × 268	260 × 658 × 428

*1: In the case of two RB units connected in series (total 8-branches), the maximum capacity of connectable indoor units is up to 56.0kW.

ABOUT US

Since we began our air conditioning business in 1971, our products have been popular globally, and we continue to improve, evolve and expand our lineup to exceed customers' expectations.

OUR HISTORY

Fujitsu General's overseas air conditioning business has been in operation since 1971, with our VRF solutions being on the market since 2001.

Fujitsu General's VRF AIRSTAGE™ Series has been developed based on our air conditioning technology along with an ongoing significant investment in research and development.
We offer a series of products suitable for large homes to large scale buildings to meet the various needs of the market.

For LARGE BUILDINGS

1936
Established as Yaou Shouten Ltd.

1971
Air conditioner exports to Middle East begin.

2001
10HP / Heat recovery and Heat pump

AIRSTAGE S

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

AIRSTAGE S

2007
8 to 42HP / Heat pump

AIRSTAGE V

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

AIRSTAGE V-II

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

AIRSTAGE VR-II

For SMALL BUILDINGS

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

AIRSTAGE J

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

AIRSTAGE J-II

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

AIRSTAGE J-IIS

AIRSTAGE J-III
High efficiency and compact design models
4HP to 6HP / Heat pump

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

NEW
AIRSTAGE V-III
High efficiency and large capacity model.
Extensive lineup from 8HP to 48HP in 2HP increments / Heat pump

---

AIRSTAGE™ HISTORY

1936 Established as Yaou Shouten Ltd. - 2016

2017

1998
Certification acquisition of
ISO14001
1998: Fujitsu General (Shanghai) Co.,Ltd.
1999: Fujitsu General (Thailand) co.,Ltd.
2002: FGA (Thailand) Co.,Ltd.
2006: Fujitsu General Central Air-conditioner (Wuxi) co.,Ltd.

2004
New Product Initiatives
Fujitsu introduced inverter technology which used R410A refrigerant.

Refrigerant R410A

2006
RoHS Compliant
Restriction of Hazardous Substances (ROHS) is an EU directive on the restriction of the use of certain hazardous substances in all consumer electrical and electronic equipment.

✓RoHS COMPLIANT

2012
DC Inverter Compressors
Use of 100% inverter driven DC compressors.

ALL INVERTER

GLOBAL NETWORK

Fujitsu General's air conditioning business has acquired a major share of the overseas market.
We have many production and sales facilities overseas, and we continue to develop and sell products
that are proven around the world due to their easy-to-use functionality, reliability and continually
evolving technology.

• Fujitsu General Air Conditioning (UK) Limited
• Fujitsu General (U.K.) Co., Limited

• Fujitsu General (Euro) GmbH

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

• F.G.L.S Electric Co., Ltd.

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

• Fujitsu General America, Inc.

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

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

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

• Fujitsu General (Taiwan) Co., Ltd.

• Fujitsu General do Brasil Ltda.

11 Overseas
Sales Companies **&**

6 Overseas
Manufacturing Companies

3 R&D Center

■ Head Office
■ Sales Companies
■ Manufacturing Companies
■ R&D Center

• Fujitsu General (Aust.)
  Pty Limited

• Fujitsu General
  New Zealand
  Limited

• Fujitsu General
  (Asia) Pte. Ltd.

• Fujitsu General
  (Middle East) FZE

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

Fujitsu General (Shanghai) Co., Ltd.

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

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

FGA (Thailand) Co., Ltd.

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

TCFG Compressor (Thailand) Co.,Ltd.

R&D Center - Fujitsu General(Shanghai)

R&D Center - Fujitsu General Engineering(Thailand)

**JAPAN Head Office
R&D Center and 60m Height Difference
Testing Tower**

HIGH QUALITY DEVELOPMENT AND PRODUCTION FACILITIES

Fujitsu General is one of Japan's leading air conditioning manufacturers with an R&D Center in Japan.
We aim to provide customers with high quality and performance tested products.

Advanced Research Facility and Equipment

Performance Testing

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

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

Silent Room
Measures the operating sound characteristics of air conditioners within a purpose built room designed to acquire precise readings.

Reliability Testing

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

Practical Test Room
Evaluates the air conditioners performance under actual installation conditions.

Shower Test Room
Evaluates the outdoor unit under adverse conditions to simulates conditions such as typhoons.

Transportation & Handling

Compressibility Testing

Vibration Testing

Testing Laboratory

Fujitsu General EMC Laboratory Limited

ACQUISITION OF ISO 9001 AND ISO 14001

Of the overseas production bases
5 companies have completed the acquisition of ISO 9001 and ISO 14001 individually.
In 2012, 11 overseas sales subsidiaries acquired certification for ISO 14001.

■ ISO 9001
■ ISO 14001
( ) Number of companies

North America
■ Sales subsidiary (1)

Europe
■ Sales subsidiary (3)

Middle East
■ Sales subsidiary (1)

South America
■ Sales subsidiary (1)

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

Japan
• Head office
• Manufacturing subsidiary (2)

Oceania
■ Sales subsidiary (2)

High Product Quality Assurance

All Fujitsu General factories have acquired ISO 9001, and have built quality control systems that are uniform around the world within this, to ensure consistent and stringent quality inspections.

Receiving Inspection

Parts procurement requires a supplier's test report. European regulation RoHS inspection is also performed by a special test department in house.

Stringent product quality inspection

A stringent quality inspection is carried out at each stage of the production process. High quality is maintained by stringent checks through inspectors and repetitive ongoing inspection.

Parts and Material

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

Assembly

Product quality inspections
• Pressure resistance inspection
• Primary leak inspection
• Secondary leak inspection
• Insulation resistance inspection
• Withstand voltage inspection
• Insulation resistance inspection
• Withstand voltage inspection
• 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

PROJECT REFERENCES

Our products are popular due to their high quality, energy saving functionality and design for easy installation. They have been utilised in a wide range of building types including high rise office buildings, retail, hotels, public facilities, schools, hospitals and residential applications.

LIGHT COMMERCIAL

Office in Europe

Shop in Europe

Hotel in U.S.A.

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

Restaurant in Middle East
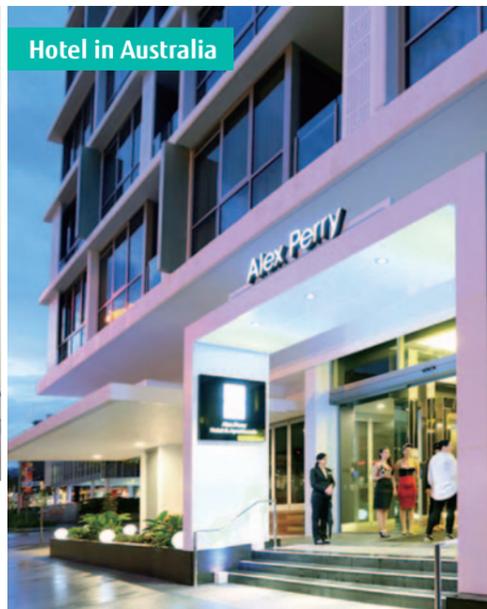
Hotel in Australia

Alex Perry

COMMERCIAL

Office in Europe

Office in China

Factory in U.S.A.

RESIDENTIAL

Residential in Europe

Residential in Middle East

Residential in Europe

Residential in Oceania

SUPPORT

Our support offering methodology is focused on total support. From the stages of design, installation and commissioning through to after sales support.

AIRSTAGE™ SUPPORT

AIRSTAGE™ / RAC SUPPORT TOOL

QUICK SERVICE & MAINTENANCE

SERVICE TOOL

WEB MONITORING TOOL

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

AIRSTAGE™ SUPPORT

Fujitsu General provides a variety of product and technical information to engineers and consultants.
We also conduct 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 specialised product, technical and service training. These research facilities also support the development of people to ensure high technical capability.

Features

• Designing AIRSTAGE™ Systems
• Control systems on site training
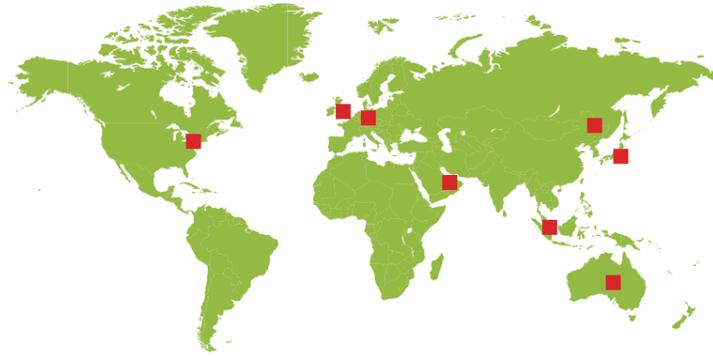
Head Office Training Center: Japan

Europe Training Center: Germany

Europe Training Center: U.K.

America Training Center: U.S.A.

China Training Center: China

Asia Training Center: Singapore

Middle East Training Center: UAE

Australia Training Centre: Sydney

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 and Technical Manual
• Model Selection and Estimation
• Certificate Data
• 2D/3D CAD Data
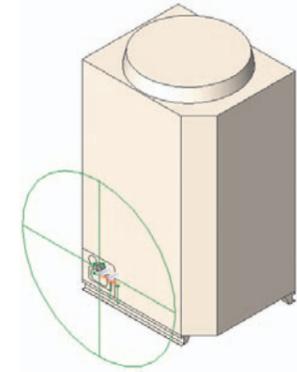
Product information

New product information is provided in the form of documents 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 and 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
• Commissioning Support
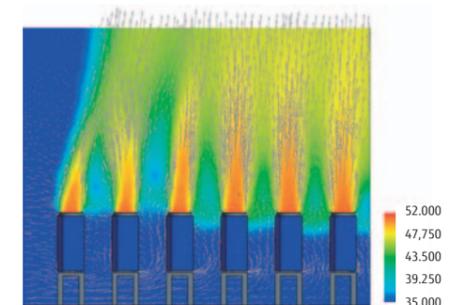
CFD Simulation

Commissioning Support

AIRSTAGE™ / RAC SUPPORT TOOL

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

Design Simulator

Automatically create model selection information

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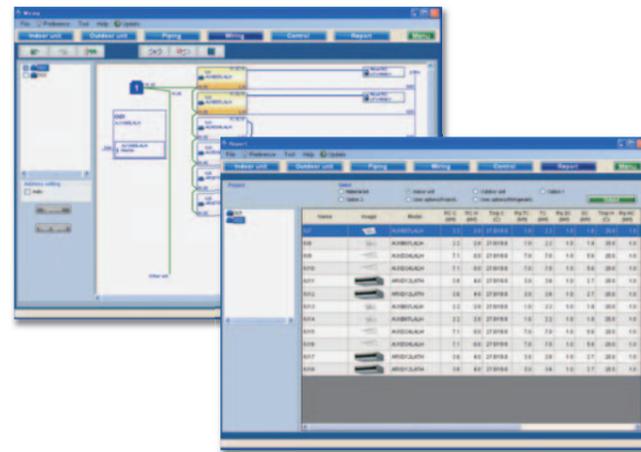
Output the format that matches the application

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

- Word format (rtf)(doc)
- Excel format (csv)
- Acrobat format (pdf)
- Auto CAD format (DXF)
- 2D Data (DXF)
- 3D Data (RFA)
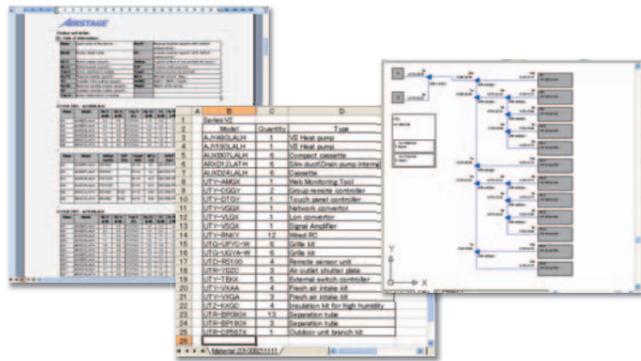
Update your Design Simulator

The database can be easily updated online using Auto Update 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)
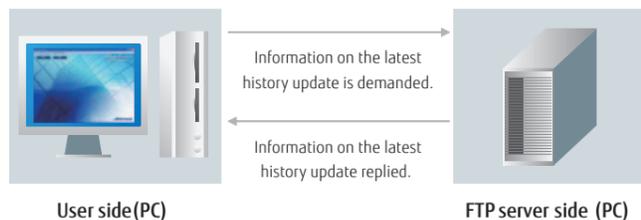
BIM Building Information Modeling

Fujitsu General provides the Building Information Modeling (BIM) object models and content for our VRF systems and other products for architects, designers and contractors using Autodesk® Revit® technology from our Website and Autodesk® Seek Website etc.

3D and 2D product data

We provide 3D data for our products. 2D CAD design operations are supported and 2D display is also provided. The data can also be output in other formats, such as DXF and DWG, which are used by other design CAD design programs.
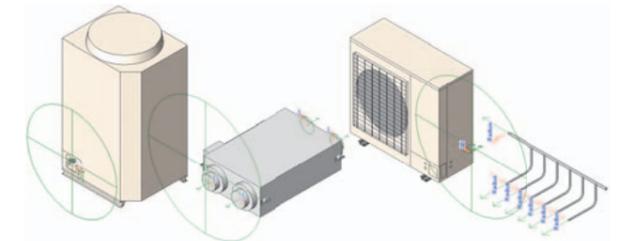

Installation limitation

The equipment installation limitation range is shown. Installation requirements, such as distance from the wall, are automatically displayed to make it easy to produce highly reliable design layouts.
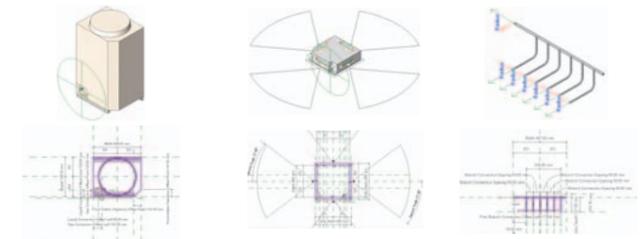

Update your Design Simulator

Other information, such as symbols showing the airflow direction that are required for installation drawings, are built in and can be automatically reflected in 2D drawings. Installation drawings can be created easily.
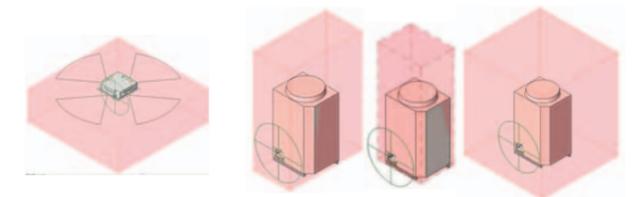
Product specifications and link information

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate. This data can be procured from the Fujitsu General Website, Design Simulator and Autodesk® Seek Website.
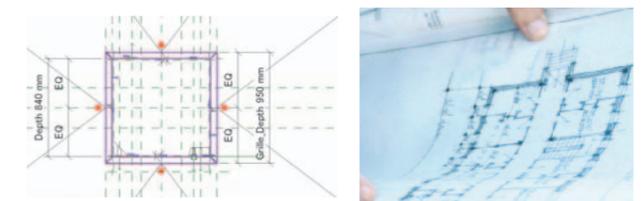
QUICK SERVICE AND MAINTENANCE

If an error should occur on a unit or system, there is an abundance of support tools such as trouble code display on the product, the VRF Service Tool allows checking of the detailed status for the entire system, and a remote monitoring tool that uses the internet meaning support, quick service and maintenance is available anywhere and at any time.

Mobile troubleshooting tool for iPhone and Android
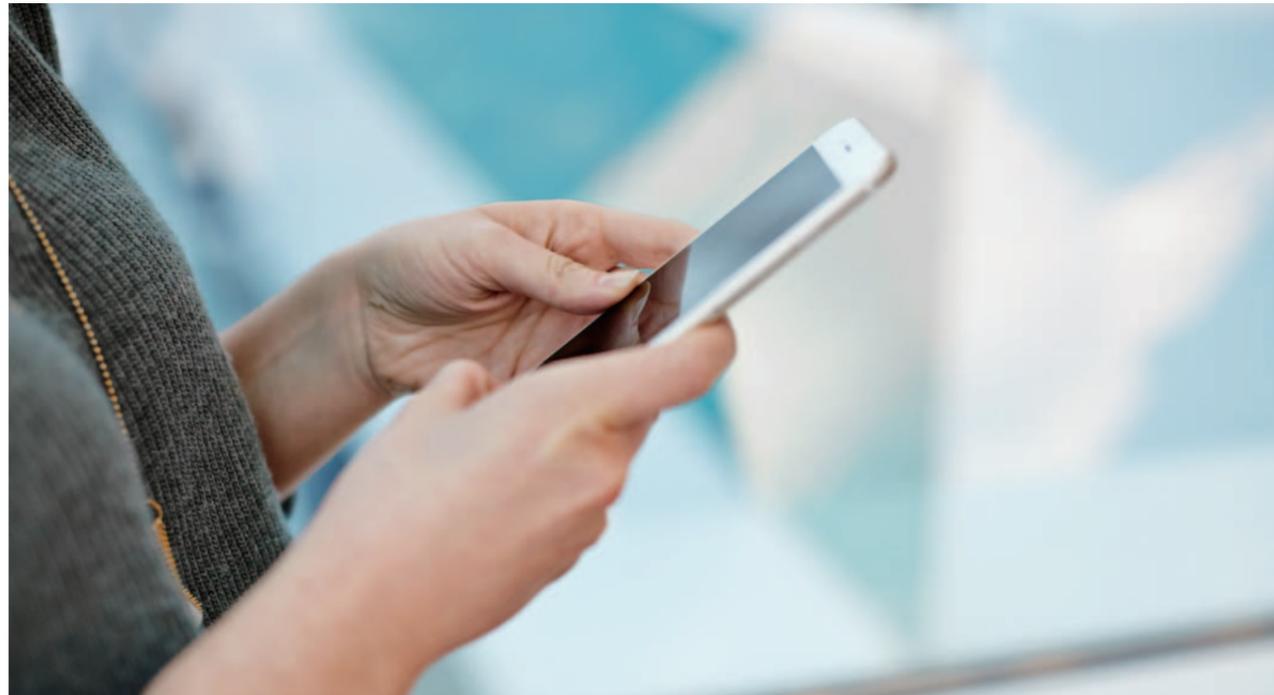
We have released an app for troubleshooting compatible with the iPhone, iPod touch and other Apple products. This application is a troubleshooting tool for all Fujitsu General air conditioners (RAC/PAC, VRF)

It assists you in checking the air conditioners condition. Error code check, Troubleshooting and Sensor check information is available.

Mobile Technician FREE

Easy maintenance and monitoring

Design for easy maintenance

The air conditioner operating status and trouble status are viewable on the 7 segment display of the outdoor unit PCB or on the remote controller screen.
The unit status can be checked efficiently enabling a quick response.

• 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

Faulty unit number
(Remote controller address)
Error code
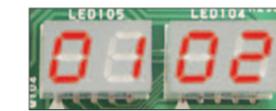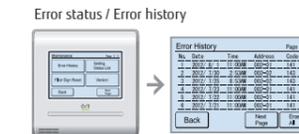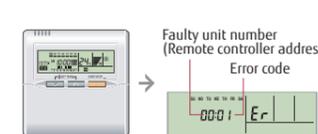
### Error diagnosis with the Service Tool

The unit status details for the VRF system can be checked on a PC screen by connecting to the Service Tool.
A quick analysis can be made. Viewable parameters include:

• 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

USB adaptor
(Locally purchased)

(Locally purchased)
Service Tool
UTY-ASGXZ1
Software
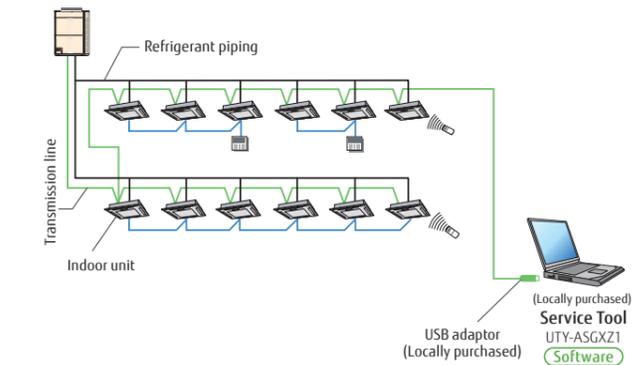
Remote monitoring

VRF system operating status and error status details can be constantly monitored over the internet.

Internet
or
Public Telephone
Line

Remote Monitoring
Web
Monitoring
Tool
UTY-AMGXZ1
Software
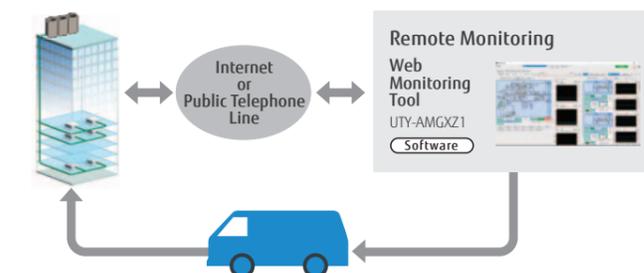
SERVICE TOOL

Extensive monitoring and analysis functions for installation and maintenance

• Operation status can be checked and analysed to detect even the smallest abnormalities
• Storage of data containing system operation detail on a laptop allows further review 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)

## Automatic operation check for refrigeration cycle

After product installation, an operation check can be performed automatically. Self diagnosis functionality automatically judges whether each sensor value is normal, saving time and workload. The diagnosis can also be output as a report.

Note: Use only as a guide.

Whether each sensor value is normal is judged automatically.

☑ Discharge temperature normal value OK
☑ Super heat volume normal value OK
☑ High pressure pipe normal value OK
☑ Low pressure pipe normal value OK
...etc.
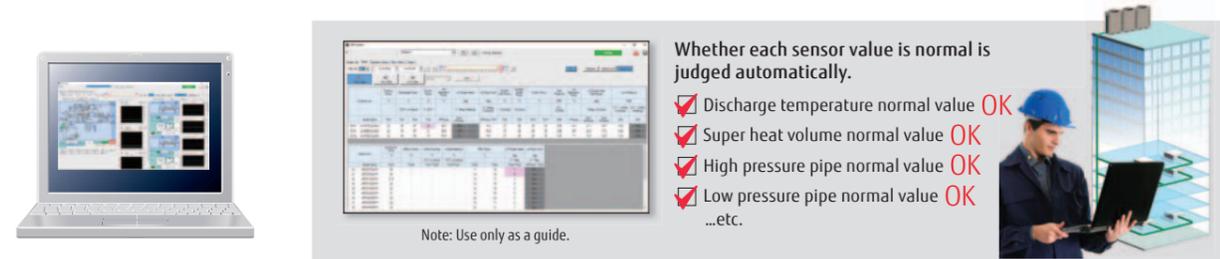
Remote technical support and maintenance

On site the service tool's screen can be shared with support personnel in a remote location. When visiting a site for troubleshooting, operation status can be shared in real time making assistance easy. The online chat function helps to support on site staff.

Distant place

An error occurs at local system.

⚠ ERROR

Internet

Technical support

Installer / Administrator
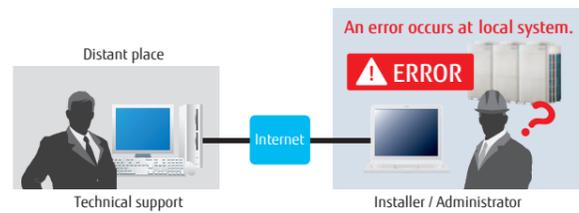
Various trend graphs are displayable

Previously, only 3 graphs could be viewed simultaneously, now multiple graphs can be displayed on the new Service Tool depending on the requirements.
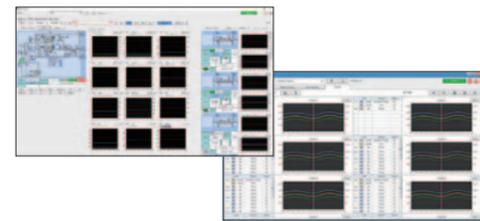
Personal computer system requirements

	UTY-ASGXZ1
Operating system	• Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	40 GB or more of free space
Display	1366 x 768 or higher resolution

Interface	• 2 USB ports
	  - 1 USB port is required for software protection key connection
	  - 1 USB port is required for Echelon® U10 USB Network Interface

Software	Internet Explorer® 11 or Microsoft Edge / Adobe® Reader® 9.0 or later

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

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

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
• Identification of an error is possible via error warnings and equipment status information obtained from a remote location
• The system data can be downloaded remotely. This data can be viewed in the offline mode of the service tool
• The PC being used to monitor equipment isn't required to install special software as access is via a general web browser

*1: Use of internet mail system required.

Web Monitoring System

Monitoring Side

Internet

VRF Network System Side

Outdoor unit
Transmission line
Web Monitoring Tool
USB adapter
(Locally purchased)
Indoor unit
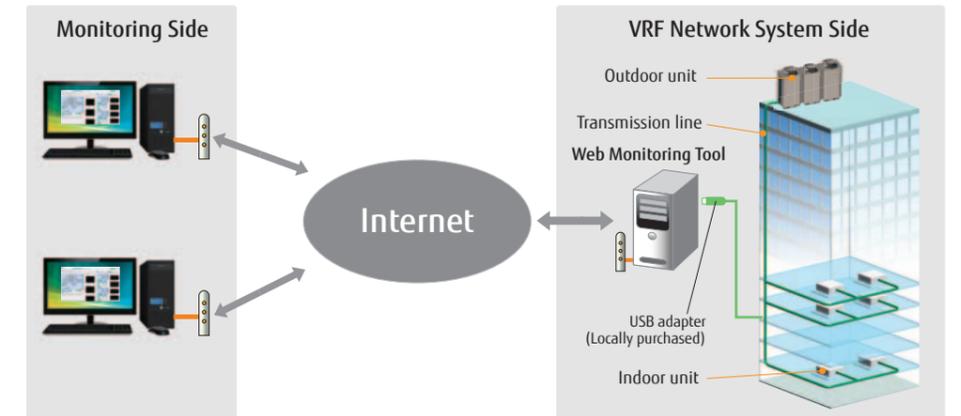
Support 4 VRF network systems

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

USB adaptors

VRF Network System 1 — Max. 400 Indoor unit
VRF Network System 2 — Max. 400 Indoor unit
VRF Network System 3 — Max. 400 Indoor unit
VRF Network System 4 — Max. 400 Indoor unit
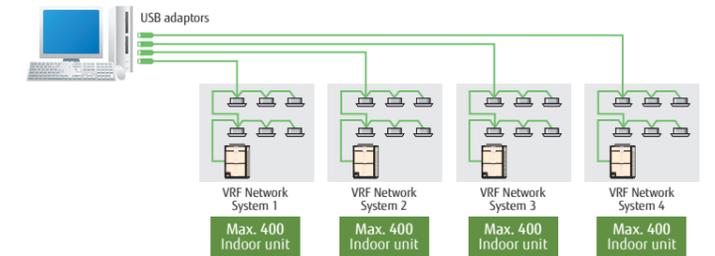
Personal computer system requirements

	UTY-AMGXZ1
Operating system	• Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Pro (32-bit or 64-bit)
CPU	1 GHz or higher
Memory	• 1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])
HDD	40 GB or more of free space
Display	1366 x 768 or higher resolution
Interface	• USB port (for 10 USB Network Interface Max.4, Software protection key) • Either of the following interface is required for remote connection: - Internet using LAN: Ethernet port is required
Software	Internet Explorer® 11 or Microsoft Edge / Adobe® Reader® 9.0 or later

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

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

FUJITSU COMMUNITY

SPORTING CHANCE

Fujitsu General Australia is extremely proud to be a major sponsor of the Sporting Chance Cancer Foundation.

Established in 1996 by a number of high profile Australian sports men and women, including Fujitsu Generals' longstanding ambassador Mark Taylor, Sporting Chance is a not-for-profit organisation that helps provide home support and care to children with cancer.

To date, Fujitsu General has donated more than $7M to this worthy cause, with a percentage of sales from Fujitsu's air conditioning units going towards the funding of outreach programs and exploring better ways to treat and overcome cancer.

This support has enabled the Sporting Chance Cancer Foundation to fund nurses across Australia allowing children to receive improved cancer care closer to home. This funding also allows for remote treatment and care for families, and considerably reduces the time spent travelling to and from the nearest hospital, which could be thousands of kilometres from home.

Sporting Chance initiatives allow families to spend more quality time at home together, while still having access to the correct care for their child.

Fujitsu General is dedicated to the ongoing support of the Sporting Chance Cancer Foundation and its commitment to improving the cancer care available for children, as well as research and new treatment developments.

SPORTING CHANCE
CANCER FOUNDATION

FUJITSU GENERAL AUSTRALIA

ABN 55 001 229 554

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All products specified in this brochure comply with the Australian Communications Authority's (ACA) requirements for Electromagnetic

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