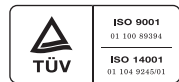


FUJITSU

Refrigerant
R410A
INVERTER

AIRSTAGE™



ISO 9001
Certified number : 01 100 89394
Fujitsu General (Thailand) Co., Ltd.

ISO 14001
Certified number : 01 104 9245/01
Fujitsu General (Thailand) Co., Ltd.



ISO 9001
Certified number : 01 100 79269



ISO 14001
Certified number : 310102-UK
Fujitsu General (Shanghai) Co., Ltd.



ISO 9001
Certified number : 00608011061R2M
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

ISO 14001
Certified number : 00609E20454R2M
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



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

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- Specifications and design are subject to change without notice for future improvement.
 - For further details, please check with our authorised dealer.
 - iPhone and iPad are trademarks of Apple Inc., registered in the U.S. and other countries.
 - Other company and product names mentioned herein may be registered trademarks, trademarks or trade names of their respective owners.

• Actual products' colors may be different from the colors shown in this printed material.

Distributed by :

FUJITSU GENERAL LIMITED

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<http://www.fujitsu-general.com/>

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6EF002-1506E

VRF
Variable
Refrigerant
Flow System

Heat Pump & Heat Recovery
CATALOGUE

FUJITSU GENERAL LIMITED

Creation of Comfort

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 policy to “create the most comfortable environment” possible.



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

Simultaneous Heating and Cooling System for Large Capacities

8HP-48HP
34 models

Space saving combination
8HP to 48HP / 21 models
Energy efficiency combination
16HP to 44HP / 13 models



AIRSTAGE™ VR-II

P34

Heating or Cooling System for Large Capacities

8HP-54HP
39 models

Space saving combination
8HP to 54HP / 24 models
Energy efficiency combination
16HP to 46HP / 15 models



AIRSTAGE™ V-III

P42

Heating or Cooling System for Large Capacities

8HP-48HP
33 models

Space saving combination
8HP to 48HP / 21 models
Energy efficiency combination
16HP to 44HP / 12 models

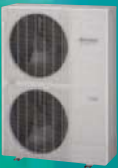


AIRSTAGE™ V-II

P48

Heat Pump Design for Small Capacities

4HP, 5HP, 6HP
3 models



AIRSTAGE™ J-II

P54

Heat Pump Design for Small Capacities

4HP, 5HP, 6HP
3 models



AIRSTAGE™ J-IIS

P58

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AIRSTAGE™ SOLUTION

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Our History

Overseas Air Conditioning Business since 1971
VRF Business since 2001

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

-  For Commercial Use
-  For Residential & Light Commercial Use

AIRSTAGE™ History

1936 | 1971 | 1998 | 2001 | 2003 | 2004 | 2006 | 2007 | 2009 | 2011 | 2012 | 2013 | 2014 | 2015

Established as
Yaou Shouten Ltd.

Air conditioner exports
to Middle East.

S series
10HP / Heat recovery
& Heat pump

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

J series
6HP / Heat pump

V series
8 to 42HP / Heat pump

AIRSTAGE V-II

V-II series
High efficiency and
Compact design model
Extensive lineup from 8HP to
48HP in 2HP increment /
Heat pump

 P48

AIRSTAGE J-II

J-II series
High efficiency and
small capacity model
4HP to 6HP / Heat pump

 P54

AIRSTAGE VR-II

VR-II series
High efficiency and
Compact design model
8 to 48HP / Heat Recovery

 P34

AIRSTAGE J-IIS

J-IIS series
High efficiency and
compact design model
4HP to 6HP / Heat pump

 P58

NEW

AIRSTAGE V-III

V-III series
High efficiency and
large capacity model
Extensive lineup from 8HP to
54HP in 2HP increment /
Heat pump

 P42



Certification Acquisition of

ISO14001

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

New Product Initiatives

Fujitsu introduced inverter technology
which used R410A refrigerant.



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.



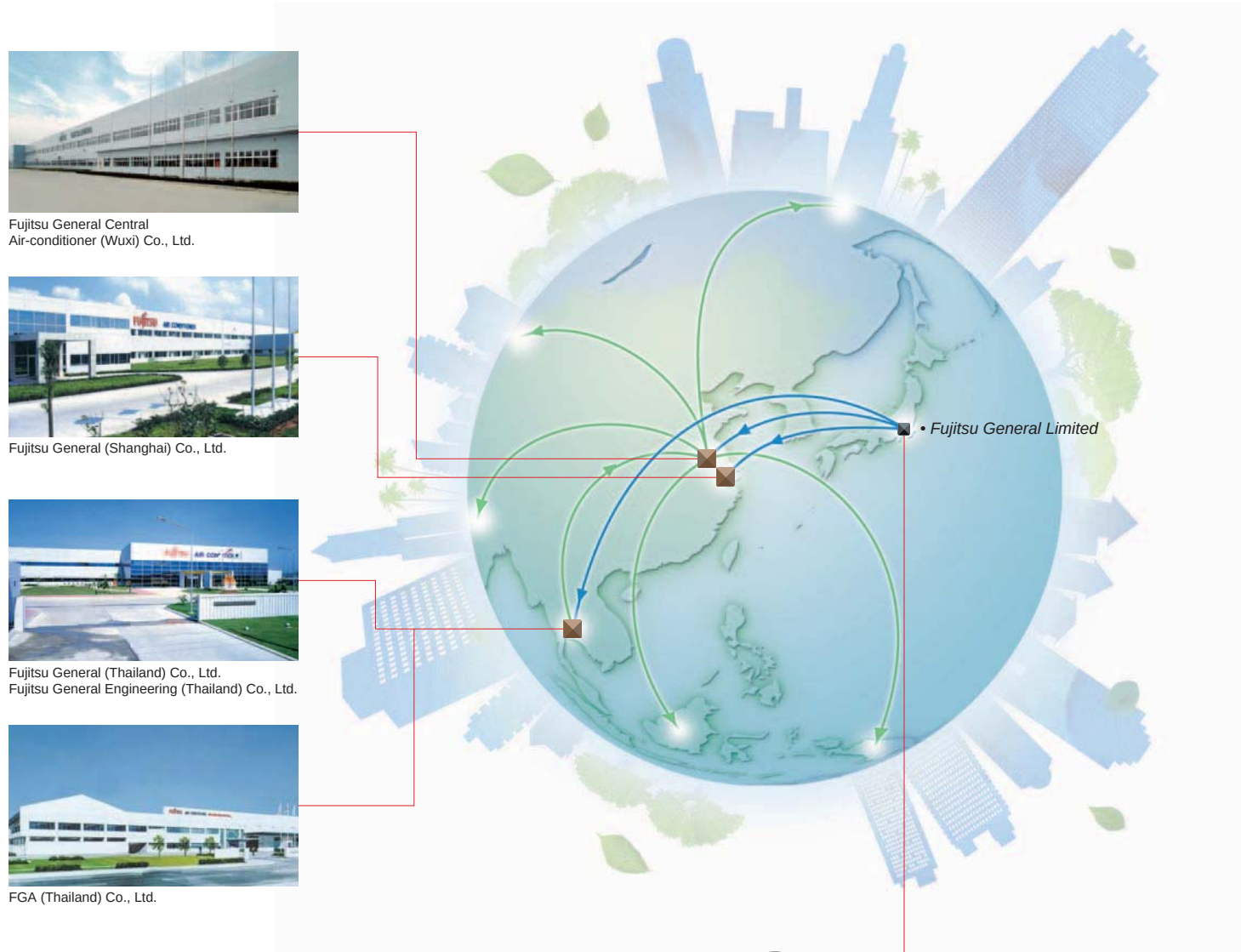
DC Inverter Compressors

Use of 100% inverter driven
DC compressors.



High Quality Development & Production Facilities

The Headquarters-R&D Center (Japan) is equipped with a wide range of testing equipment envisioning a variety of operating conditions. This includes a testing tower with a 60m height difference for buildings. We provide high quality & reliable products that meet the customers' needs from all over the world through this advanced R&D Center and 6 factories based in China and Thailand.



Certifications Acquisition of ISO 9001 and ISO14001 in each factory

R&D Center in JAPAN

Advanced Research Facility and Equipment

Performance testing



Air flow testing

Sound testing

Calorimeter testing

Transportation & Handling



Vibration testing

Compressibility testing

Reliability Testing



Severe environmental testing

Water shower testing

Testing Laboratory

Fujitsu General EMC Laboratory Limited



International Test Site for EMC Regulation

60m Height Difference Testing Tower

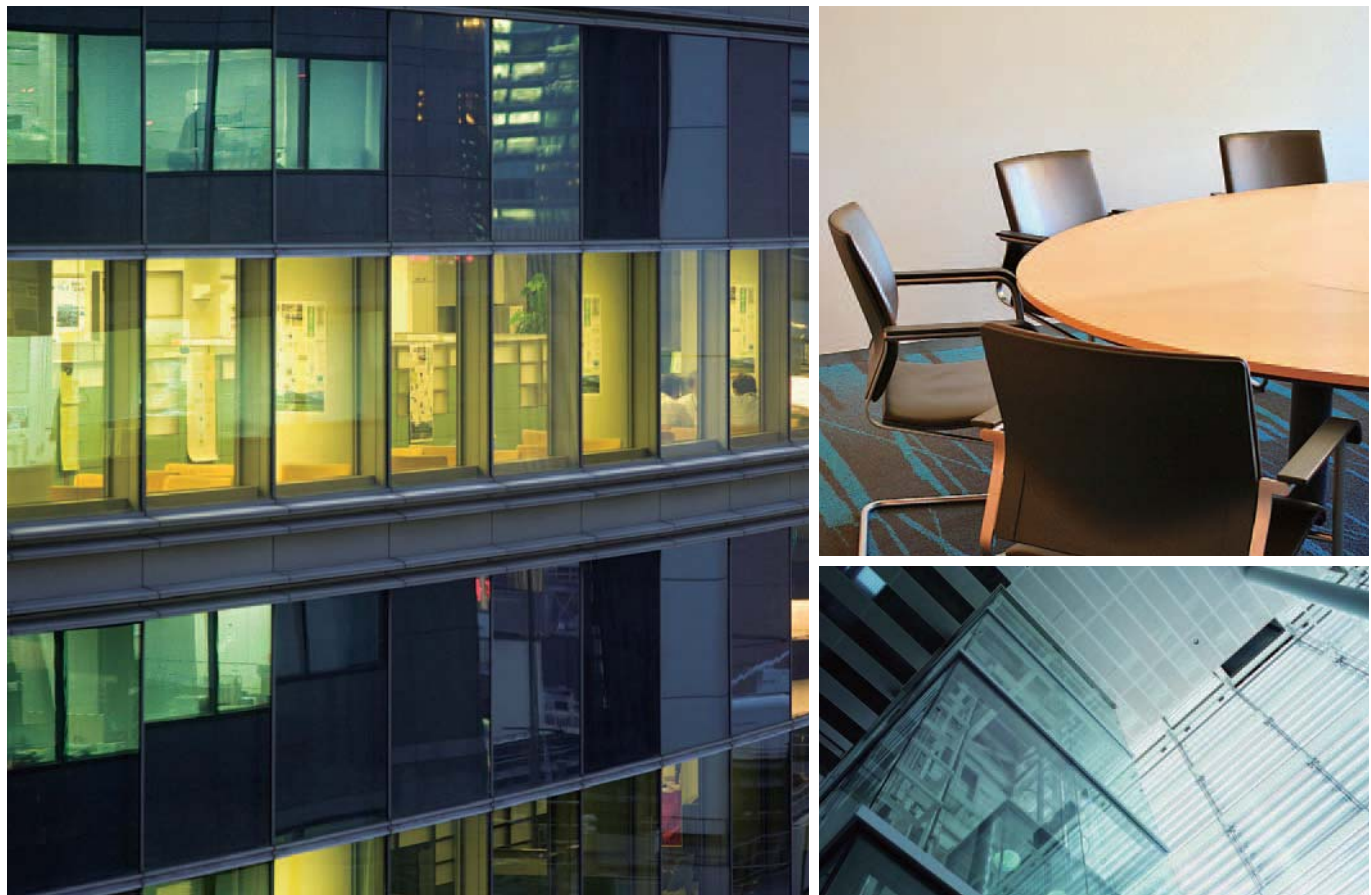
Objective is to Confirm Oil Circulation of Compressor for Reliability





AIRSTAGE New Products

VRF system Modular Heat Pump type



- Up to 54HP with newly added 18HP outdoor unit combination.
- Connectable indoor unit, 12 types 58models
- Connectable indoor unit number up to 64
- Advanced energy saving control
- Actual piping length up to 165m, High static pressure of 82Pa



Easy-to use Wired Remote Controller

- Various timer (ON/OFF/Weekly)
- Easy one touch operation
- Automatic address setting
- Error code and error history display

**Individual & Simple
central control**

Wired Remote Controller
UTY-RLRY



Fresh air ventilation

- 100% outdoor air intake possible
- Compact size and high static pressure 200 Pa (22.4 kW)
- High energy saving by adopting DC motor

Outdoor Air Unit: ARXH054GTAH / ARXH072GTAH / ARXH096GTAH

The heat pump method efficiently processes the outdoor air for cooling and heating and supplies 100% fresh air into a room.



ARXH054GTAH



ARXH072GTAH



ARXH096GTAH

DX-Kit for air handling applications

- Possible to connect the air handling unit and the fan coil unit
- Optimal control with multiple temperature sensors
- Support a wide range of capacity classes (from 5 kW to 50 kW)
- Connectable to AIRSTAGE™ (J-IIS, J-II, V-II, VR-II) series

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

This kit can connect the general-purpose air handling unit (AHU) and the fan coil unit (FCU) to the VRF system.
It enables VRF system to control the operation of both air conditioner and ventilation.



EEV unit
UTP-VX30A



EEV unit
UTP-VX60A



EEV unit
UTP-VX90A



Control unit
UTY-VDGX

Indoor units range

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs.
13 types, 64 models, Capacity range from 1.1kW to 25.0kW

Model code		4	7	9	12	14	18	24	30	34	36	45	54	60	72	90
Capacity range (kW)		1.1	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
Cassette	Compact Cassette	 AUXB04GALH	 AUXB07GALH	 AUXB09GALH	 AUXB12GALH	 AUXB14GALH	 AUXB18GALH	 AUXB24GALH								
	Cassette	Slim type					 AUXD18GALH	 AUXD24GALH								
		Large type					 AUXA18GALH	 AUXA24GALH	 AUXA30GALH	 AUXA34GALH	 AUXA36GALH	 AUXA45GALH	 AUXA54GALH			
Duct	Low Static Pressure Duct		 ARXB07GALH	 ARXB09GALH	 ARXB12GALH	 ARXB14GALH	 ARXB18GALH									
	Slim Duct (Drain pump internal)	 ARXD04GALH	 ARXD07GALH	 ARXD09GALH	 ARXD12GALH	 ARXD14GALH	 ARXD18GALH	 ARXD24GALH								
	Medium Static Pressure Duct							 ARXA24GBLH	 ARXA30GBLH		 ARXA36GBLH	 ARXA45GBLH				
	High Static Pressure Duct										 ARXC36GBTH	 ARXC45GATH		 ARXC60GATH*1	 ARXC72GBTH*1	 ARXC90GBTH*1
	Large Airflow Duct						 ARXN18GATH*2	 ARXN24GATH*2	 ARXN30GATH*2	 ARXN34GATH*2	 ARXN36GATH*2	 ARXN45GATH*2				
Floor	Floor (Same as Ceiling models)				 ABYA12GATH	 ABYA14GATH	 ABYA18GATH	 ABYA24GATH								
	Concealed Floor (Same as Low Static pressure Duct models)		 ARXB07GALH	 ARXB09GALH	 ARXB12GALH	 ARXB14GALH	 ARXB18GALH									
	Slim Concealed Floor (Same as Slim Duct models)	 ARXD04GALH	 ARXD07GALH	 ARXD09GALH	 ARXD12GALH	 ARXD14GALH	 ARXD18GALH	 ARXD24GALH								
Ceiling	Ceiling				 ABYA12GATH	 ABYA14GATH	 ABYA18GATH	 ABYA24GATH	 ABYA30GATH		 ABYA36GATH	 ABYA45GATH	 ABYA54GATH			
Wall Mounted	Wall Mounted	 ASYA04GACH	 ASYA07GACH	 ASYA09GACH	 ASYA12GACH	 ASYA14GACH	 ASYA18GACH	 ASYA24GACH	 ASYA30GACH							
	Wall Mounted (EEV external)	 ASYE04GACH	 ASYE07GACH	 ASYE09GACH	 ASYE12GACH	 ASYE14GACH	With this model, connection of EV kit is necessary.									

*1: ARXC60/72/90G cannot be connected to J-IIS series and J-II series. *2: Large Airflow Duct can be connected to V-III series only.

Energy Recovery Ventilator range

Energy Recovery Ventilator provides fresh air to maintain a consistent indoor temperature & humidity, and creates more comfortable environment. 5 models

Airflow rate (m³/h)	250	350	500	800	1000
Model code	025	035	050	080	100
Energy Recovery Ventilator	 UTZ-BD025B	 UTZ-BD035B	 UTZ-BD050B	 UTZ-BD080B	 UTZ-BD100B

Outdoor Air Unit range

The heat pump method efficiently processes the outdoor air for cooling and heating and supplies 100% fresh air into a room.

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

AIRSTAGE Support

Fujitsu General provides a variety of product and technology information to engineers and consultants and also conducts new product research and design support activities.

We provide a wide range of support to maintain high quality from design to installation.



Training

Fujitsu General has built the training facilities in many locations around the world that regularly engage in specialized product, technology, and servicing training. These research facilities also support the development of people with high technical capability.

Features

- Designing Airstage Systems
- Control System on-site training



Training for installer



Presentation & training for dealers 2

Product information

New product information is provided in the form of documents and movies for each model to match the release timing. These can be downloaded from a special website, so please contact our dealer nearest you.

Features

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

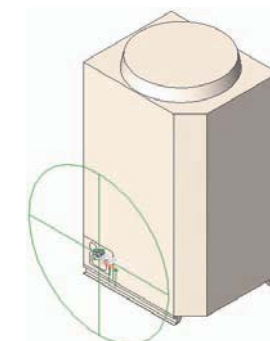


Technical Information

We provide information helpful for design. We also provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make it easy to select models and create estimates.

Features

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

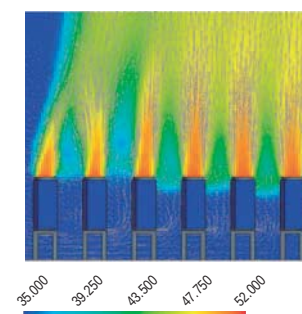


Technical Support

Technological support is provided at every stage from design to installation to maintain the necessary reliability. We cooperate with you to build a better quality air conditioning environment.

Features

- CFD Simulation
- Guide line
- Commissioning Support



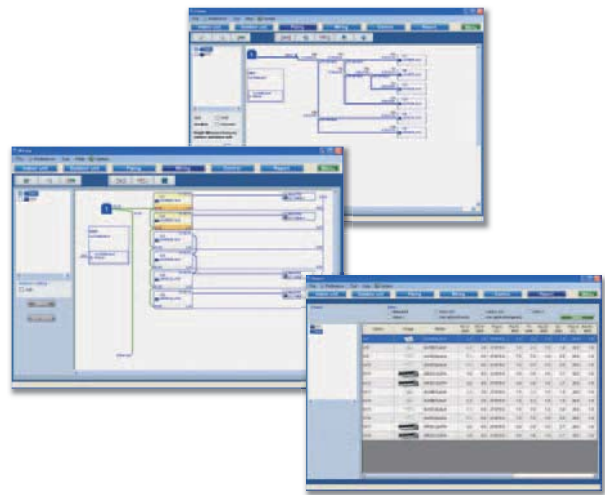
Design Support Tool

Design Simulator

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

Automatically create model selection information

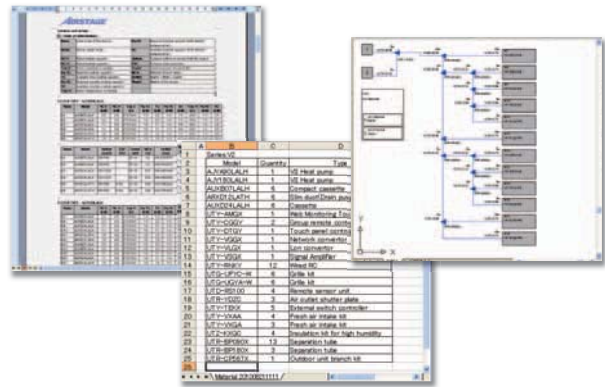
- Each unit can be automatically set by entering the required performance, type, and temperature conditions for each indoor unit and then dragging and dropping into the outdoor unit.
- Piping and wiring diagrams can be created automatically and it is easy to set branches, grouping, and options.
- The 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

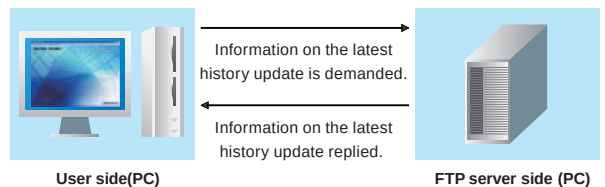
The information specific to your project can be exported in a number of industry standard file formats.

- Word format (rtf)
- Excel format (csv)
- Auto CAD format (DXF)
- 2D Data (DXF)
- 3D Data (RFA)



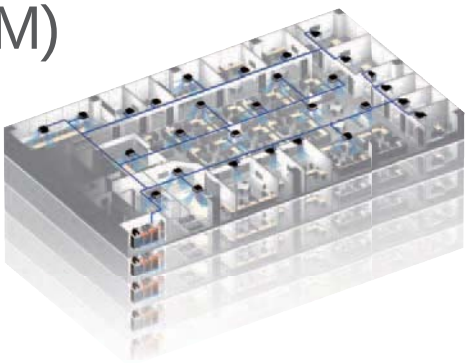
Update your Design Simulator

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



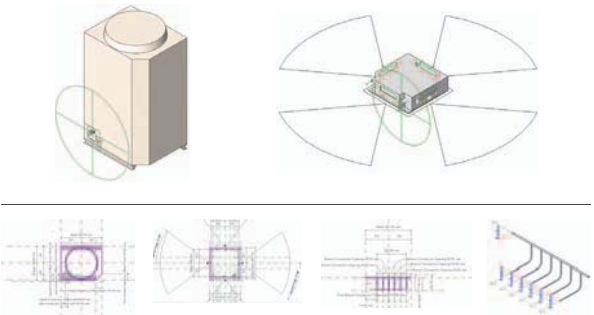
Building Information Modeling (BIM)

FUJITSU GENENRAL provides the Building Information Modeling (BIM) object models and contents for our VRF system and some products to the architect, designer and contractor using Autodesk® Revit® technology from our Website and Autodesk® Seek Website, etc.



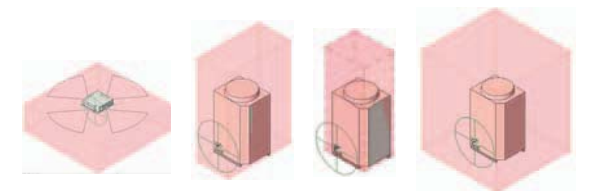
3D and 2D product data

We provide 3D data that closely resemble the actual product appearance. 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.



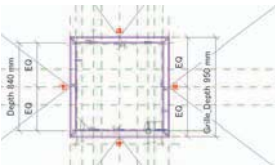
Installation limitation

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



Installation information

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



Product specifications & Link information

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate.

These data can be procured from the Fujitsu General Website, Design Simulator, and Autodesk® Seek Website.

AIRSTAGETM SOLUTION

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

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

HIGH ENERGY EFFICIENCY

MORE COMFORT

HIGH RELIABILITY

DESIGN FLEXIBILITY

EASY INSTALLATION

EASY SERVICE & MAINTENANCE

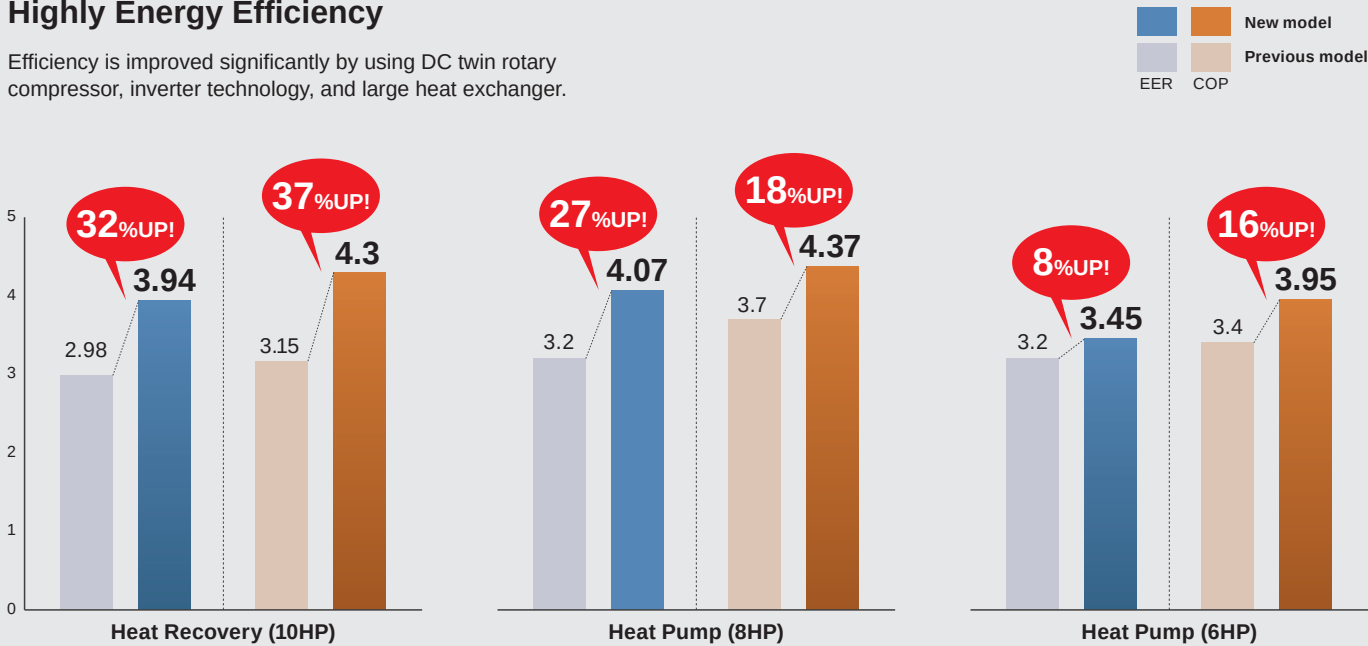


AIRSTAGETM

HIGH ENERGY EFFICIENCY

Highly Energy Efficiency

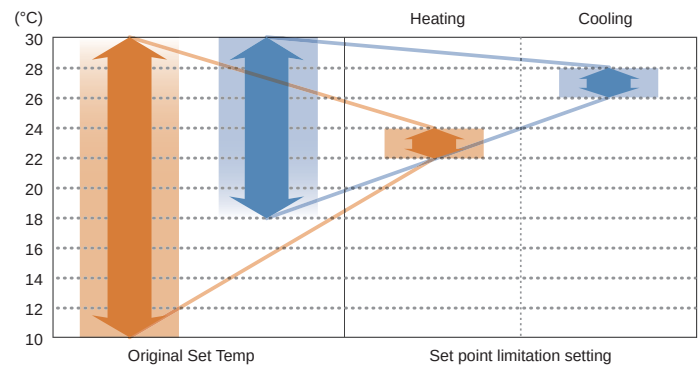
Efficiency is improved significantly by using DC twin rotary compressor, inverter technology, and large heat exchanger.



Operation Performance is Effectively Controlled.

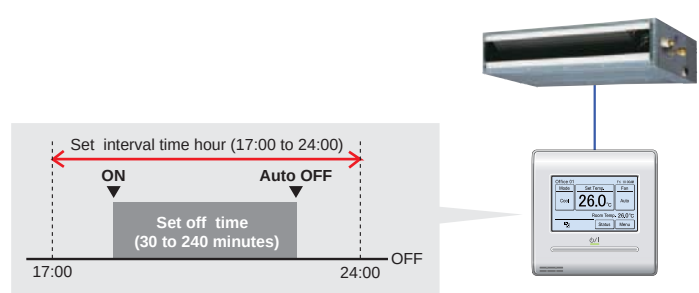
Room temperature set point limitation

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



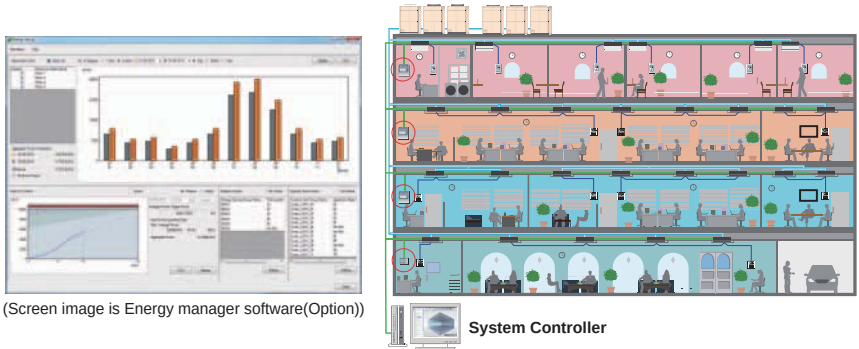
Auto-off timer

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



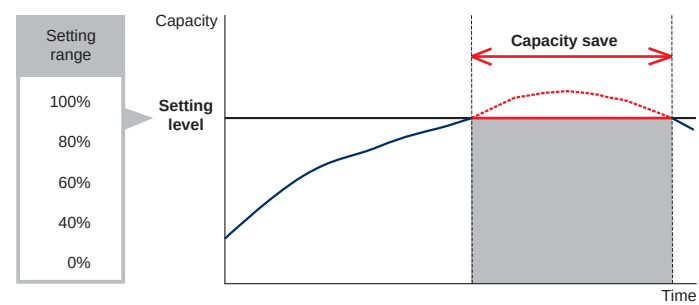
Energy saving management

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



Capacity save operation

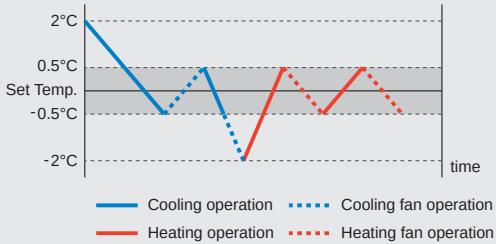
Operation capacity can be set in 5 steps for rated capability. The power consumption at peak is cut down and the maximum load is suppressed.



MORE COMFORT

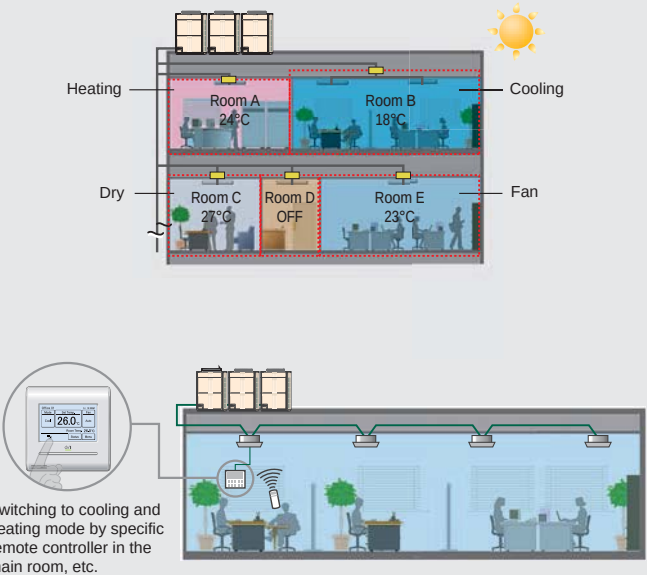
Auto changeover function

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



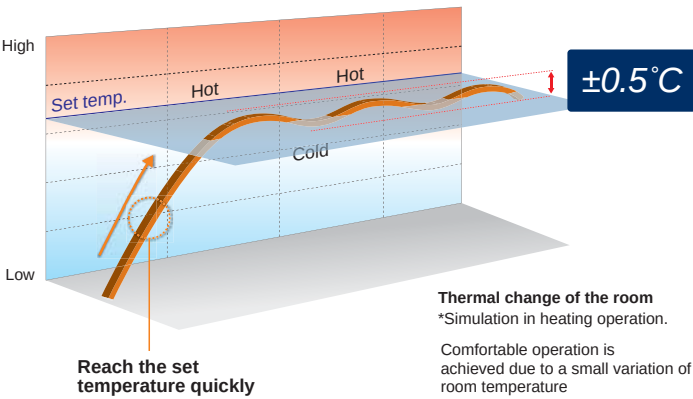
Auto changeover setting allows for the product to easily switch between cooling and heating modes regardless of the operation mode of other indoor units. This can be done via specific indoor unit with wired remote controller. This ensures comfortable operation all year round.

Automatic cooling / heating operation for each room is possible



Precision refrigerant flow control

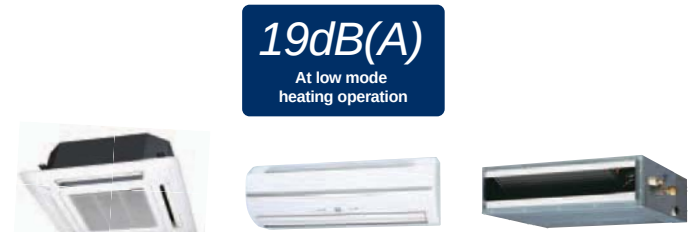
Precise and smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows high precision comfortable temperature control of $\pm 0.5^{\circ}\text{C}$.



Low sound level design

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

These models will be able to offer greater audibility comfort by operating at super low sound levels. Especially, Wall mounted (EEV external) type is 19dB(A) when low mode heating operation.



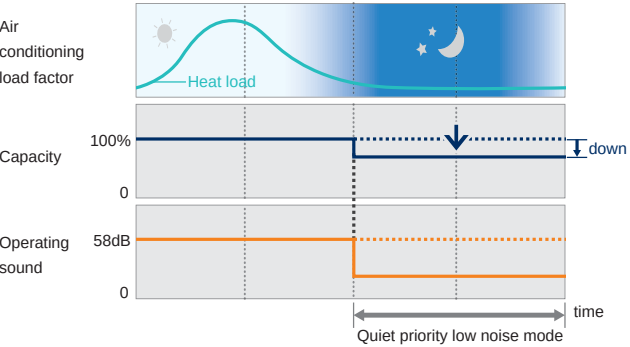
Small capacity indoor unit

Quiet operation

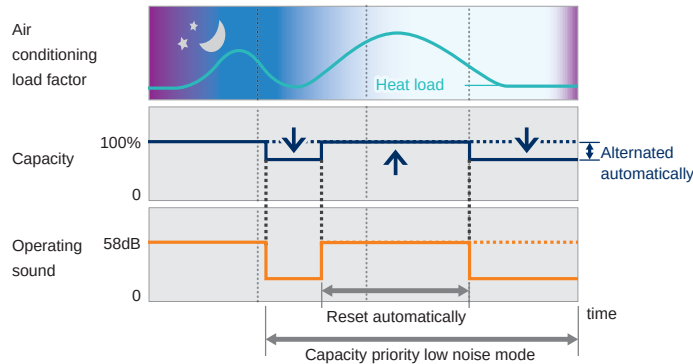
Low noise mode

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

Quiet priority setting



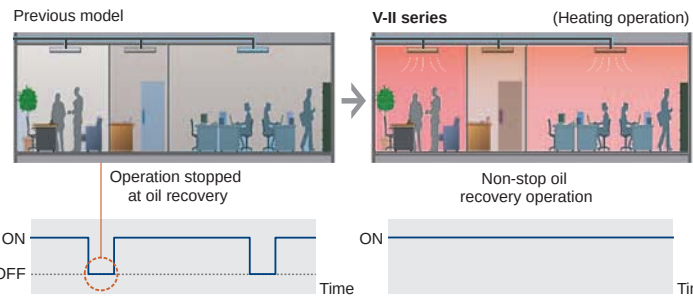
Capacity priority setting



Non-stop oil recovery operation

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

*: AIRSTAGE VR-II series is not available.

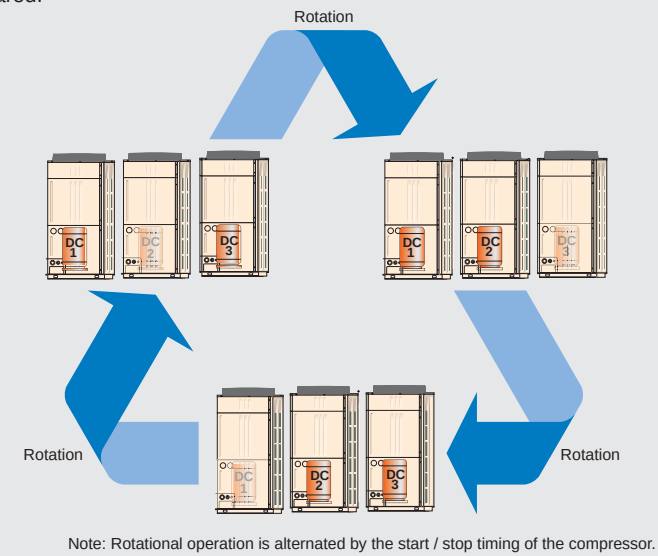


HIGH RELIABILITY



Outdoor unit rotational operation

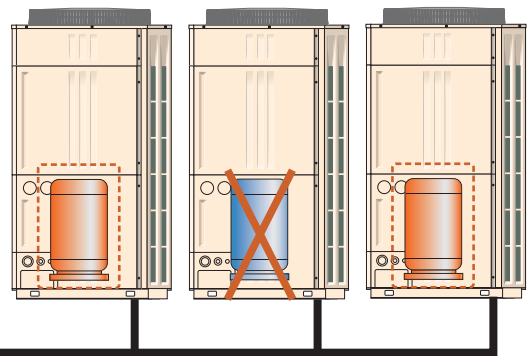
The compressor starting order is rotated so that the running time is shared.



Backup operation

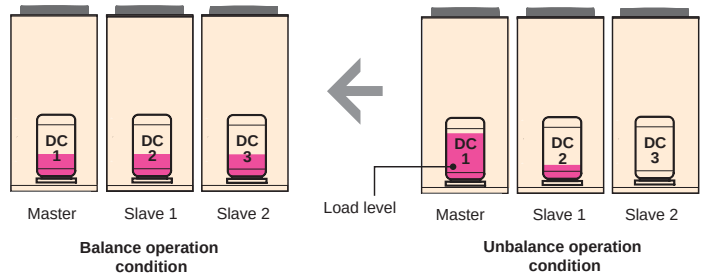
If one compressor fails, backup operation will be performed by the remaining compressors*.

*: Note: Backup operation may not be possible depending on the trouble state.



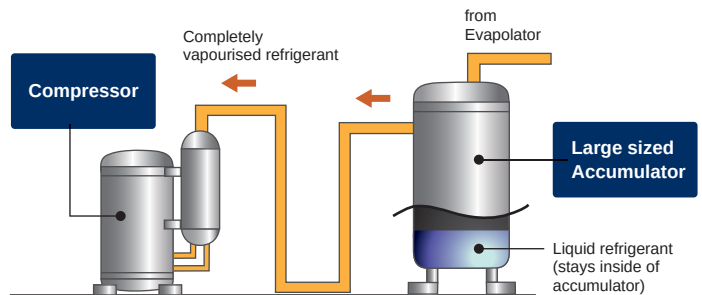
Advanced refrigerant control

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



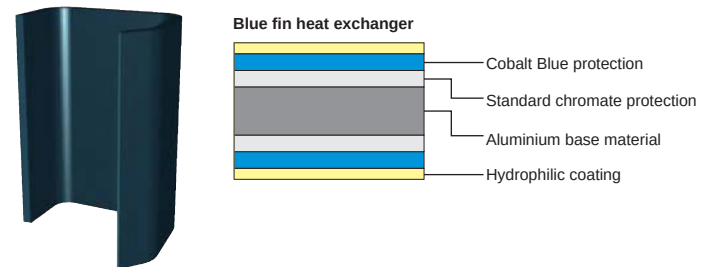
Liquid flow back protection

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



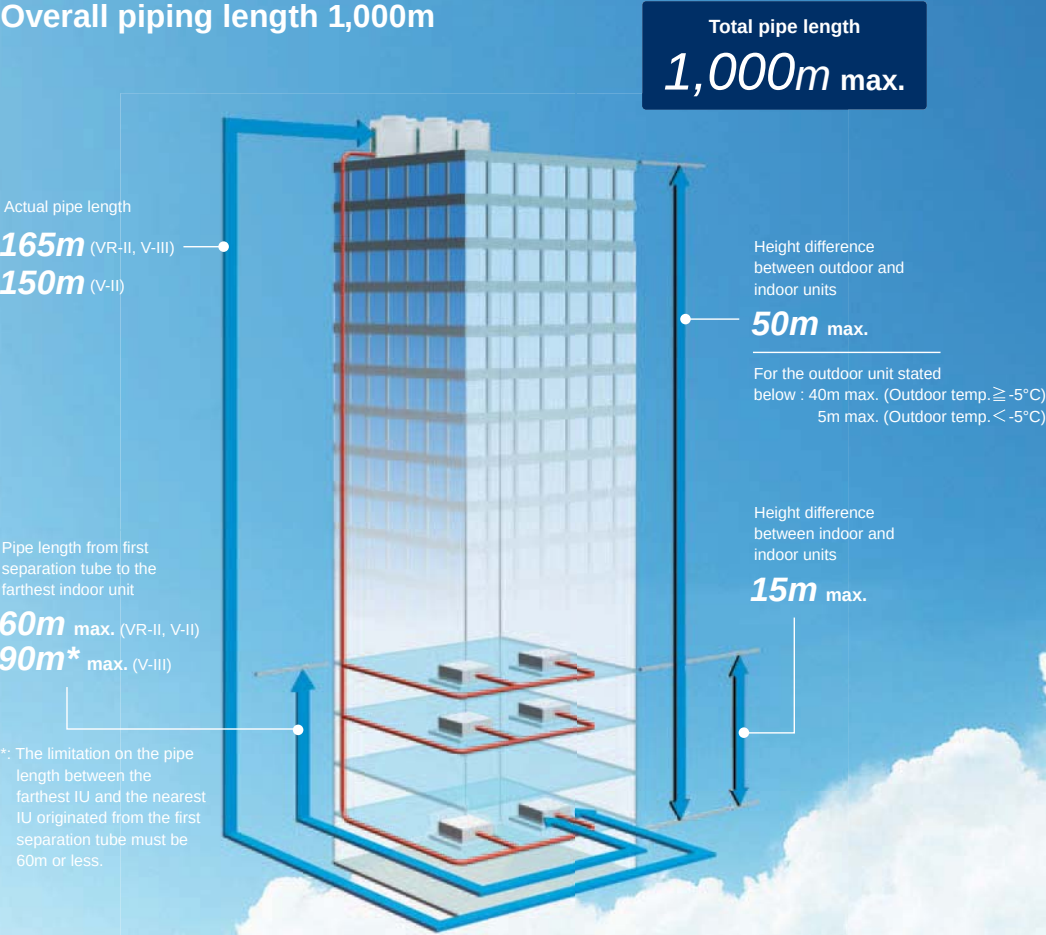
Adoption of blue fin heat exchanger

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



DESIGN FLEXIBILITY

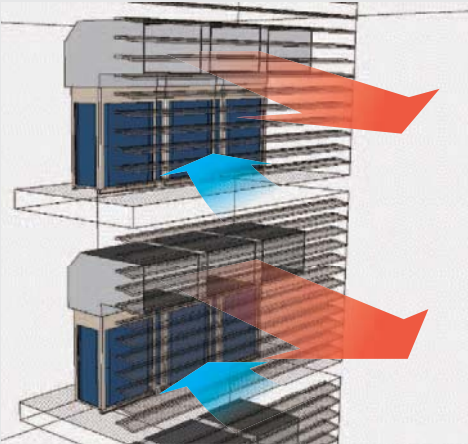
Overall piping length 1,000m



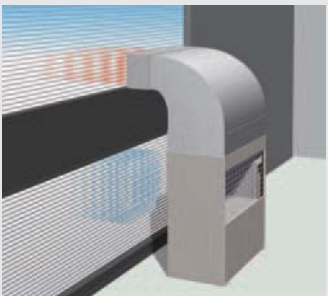
High static pressure

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

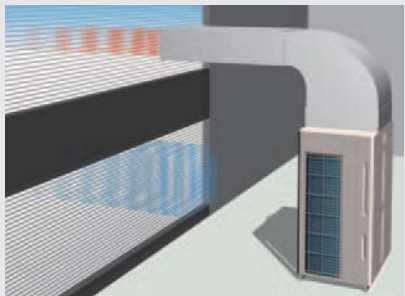
Powerful discharge air prevents a short-circuit.



Previous model



VR-II, V-III, V-II series



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

80 Pa (VR-II, V-III)
82 Pa (V-II)

High capacity connection

4HP-6HP AIRSTAGE™ J-IIS and AIRSTAGE™ J-IIS series Heat Pump type



Connectable indoor unit capacity range
50 %^{*2} to 130 %^{*1}

Connectable indoor unit number
up to 9
J-IIS is 8

8HP-48HP AIRSTAGE™ VR-II series Heat Recovery type AIRSTAGE™ V-II series Heat Recovery type



Connectable indoor unit capacity range
50 % to 150 %^{*1}

Connectable indoor unit number
up to 64

Connectable indoor unit capacity range
50 % to 150 %^{*1}

Connectable indoor unit number
up to 48

8HP-54HP AIRSTAGE™ V-III series Heat Recovery type



Connectable indoor unit capacity range
50 % to 150 %^{*3}

Connectable indoor unit number
up to 64

*1. Conditions of maximum connectable indoor unit capacity ratio is as the chart below.
*2. Only 4HP is 46%
*3. Max. capacities in the combinations including the 18HP outdoor unit fall below 150%.

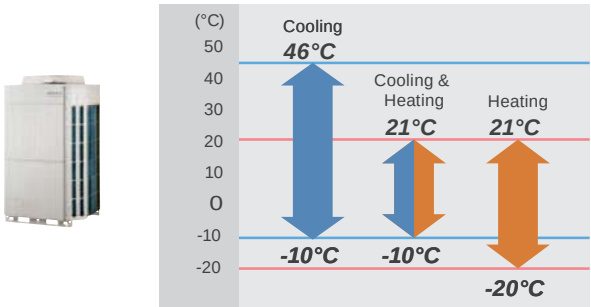
Series	Maximum connectable indoor unit capacity ratio	
	Without 1.1kW models	With 1.1kW models*4
V-II/VR-II	150%	130%
J-IIS/J-II	130%	117%(J-IIS), 120%(J-II)

*4. In the case of connectable indoor units, 1.1 kW models and Cassette and/or Duct type of 9.0 kW class or more, maximum connectable indoor unit capacity ratio is 110%.

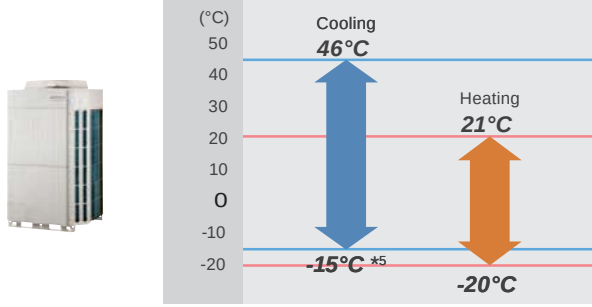
Wide operating range

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

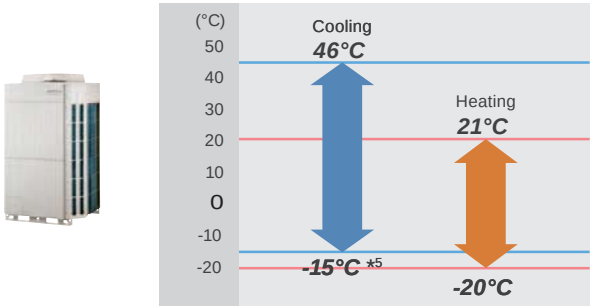
AIRSTAGE™ VR-II series Heat Recovery type



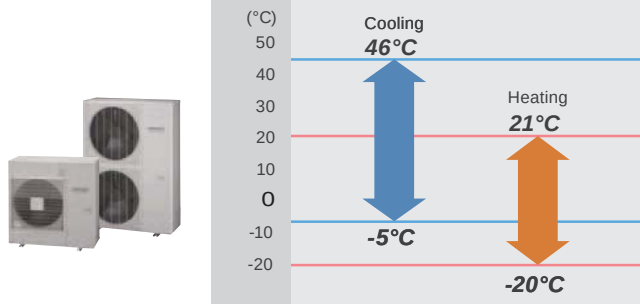
AIRSTAGE™ V-III series Heat Pump type



AIRSTAGE™ V-II series Heat Pump type



AIRSTAGE™ J-IIS & AIRSTAGE™ J-II series Heat Pump type



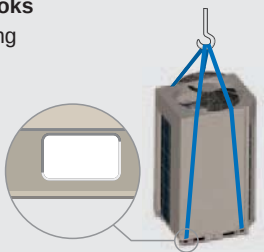
*5. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 46°C in cooling.

EASY INSTALLATION



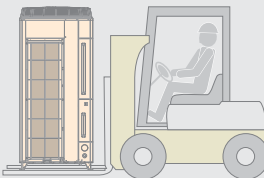
Easily transported

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.

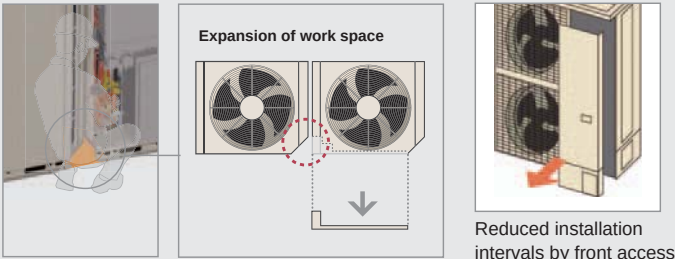


Can be transported in a small elevator



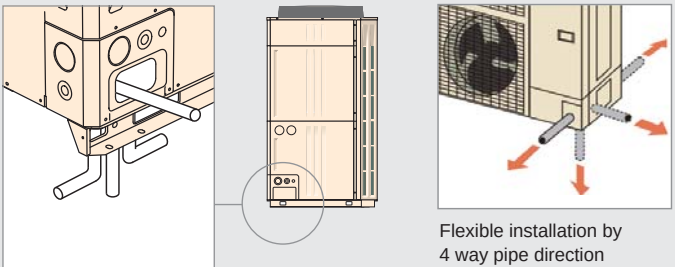
Easy access

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



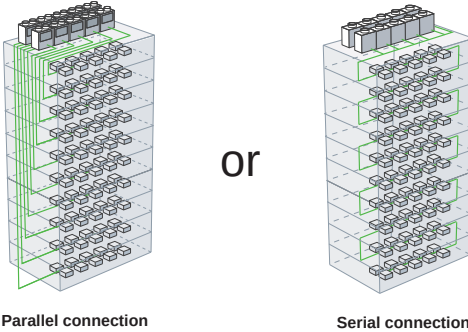
Flexible piping connection

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



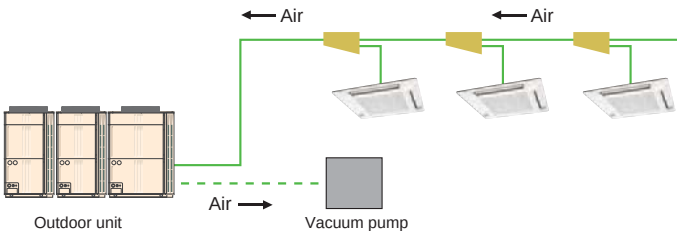
Simple wiring work

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



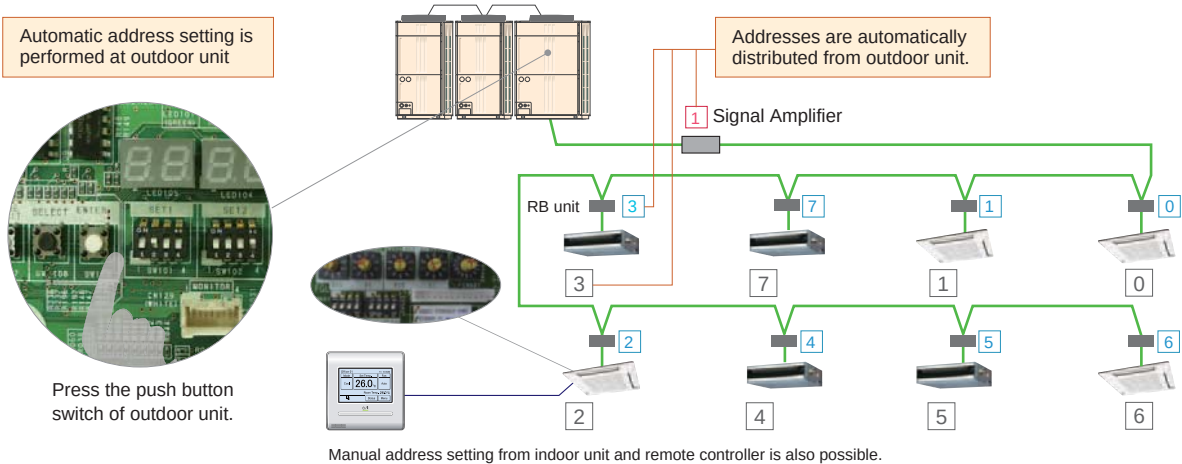
Easy evacuation - using vacuum mode function

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



Automatic address setting

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



Easy commissioning by Service Tool

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



EASY SERVICE & MAINTENANCE

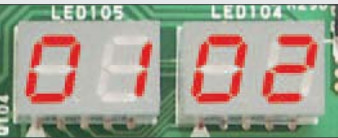


Design for Easy Maintenance

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



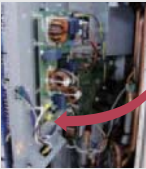
Easy to read 7-segment LED : Confirm detailed operational and error status without using any specific equipment.



7-segment LED

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

Movable PCB panel
Easier for maintenance work behind the PCB



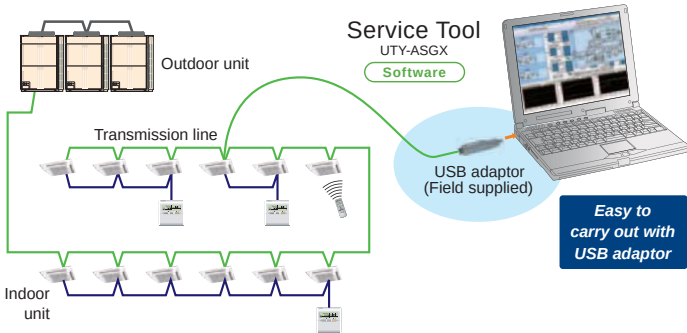
Mobile trouble shooting tool for iPhone

We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products. This application is a troubleshooting tool for FUJITSU GENERAL air conditioner (RAC / PAC, VRF) It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.

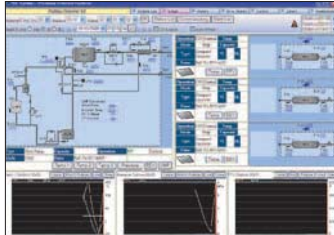


Error diagnosis by Service Tool

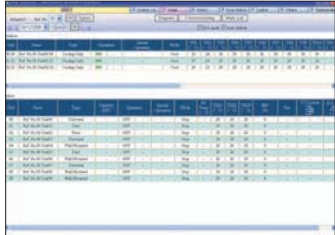
Necessary maintenance can be carried out after analysing the operation data. The service tool can be connected anywhere in the VRF network.



Equipment Detail (Diagram)



Equipment Detail (List)



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

An error code is displayed on a liquid crystal screen.

Wired Remote Controller

Simple Remote Controller

Wired Remote Controller (Touch panel)

No.	Date	Time	Address	Code
1	2012/7/20	11:00AM	002-01	141
2	2012/7/20	2:53AM	002-02	143
3	2012/7/20	8:53AM	002-02	143
4	2012/7/20	11:00AM	002-01	141
5	2012/7/20	11:00AM	002-01	141
6	2012/7/21	11:00AM	002-01	141

Error status can be checked easily by outdoor unit display

Error and quantity annunciation

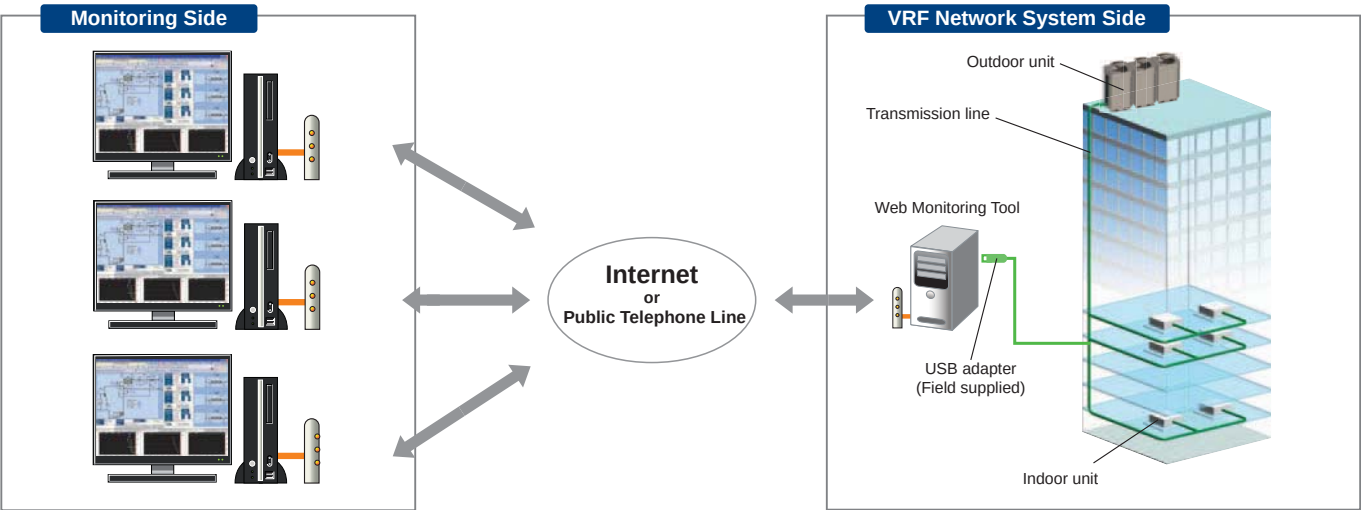
Error code

Abnormal indoor unit address

Remote monitoring

The Web Monitoring system allows you to view system operation anytime over the internet, ensuring issue free operation.

Web Monitoring System





AIRSTAGE
INVERTER

AIRSTAGE SERIES

The AIRSTAGE VRF Range of products is made up of 70 outdoor unit models to help designers meet the needs requirements of projects designers are working on.

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

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

HEAT RECOVERY TYPE AIRSTAGE VR-II

HEAT PUMP TYPE AIRSTAGE V-III

HEAT PUMP TYPE AIRSTAGE V-II

HEAT PUMP TYPE AIRSTAGE J-II

HEAT PUMP TYPE AIRSTAGE J-IIS



AIRSTAGE™

HEAT RECOVERY TYPE

AIRSTAGE™ VR-II series

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

System Outline



Simultaneous cooling and heating operation using 1 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

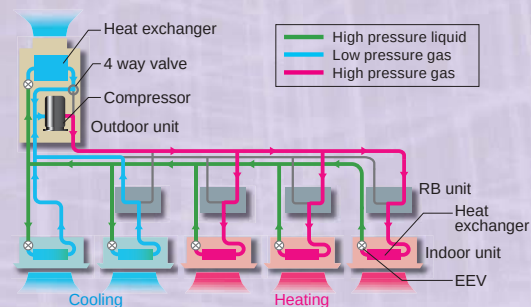
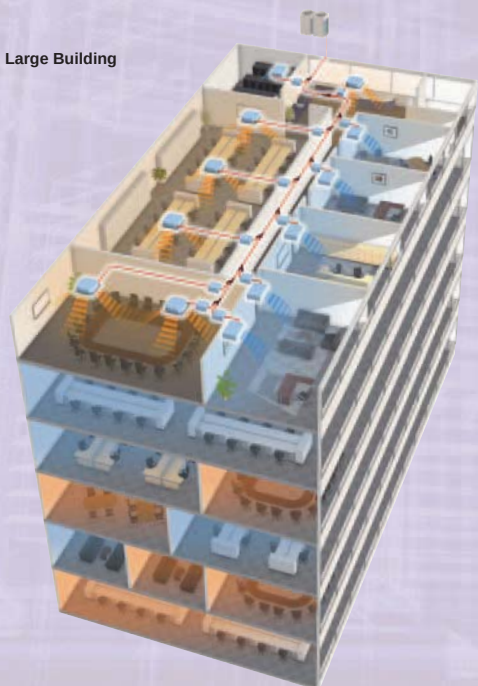
Use annual cooling operation for the rooms and other spaces that require constant temperature control throughout the year.



Handles changes in the temperature difference

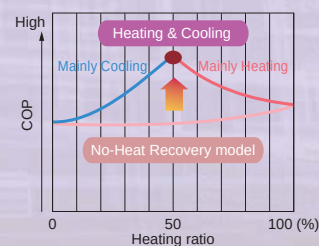
The operation mode can be freely changed when there are large temperature differences during the day, such as between seasons.

Large Building



Our Heat recovery systems 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.

Energy saving of the operating systems has been approved as heating and cooling modes can be operated at the same time on the same air conditioning piping system.

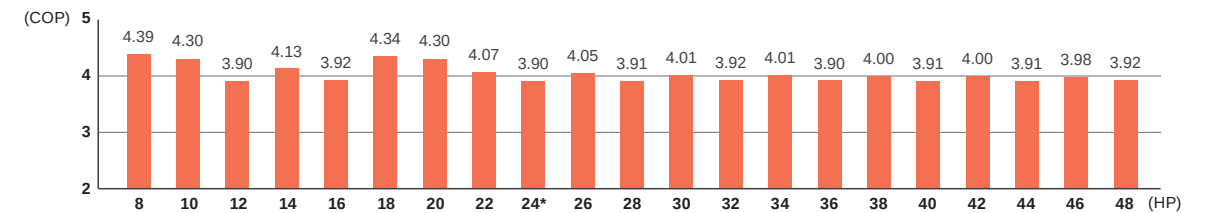


Features

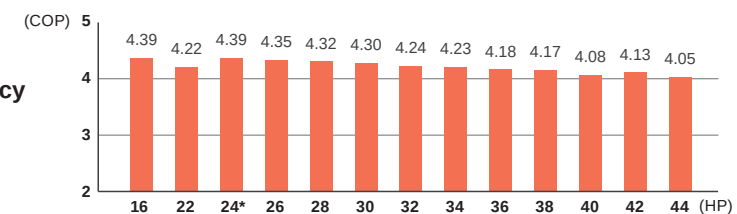
Efficiency in actual operation

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

Space saving combination



Energy efficiency combination



For 24 HP Combination

Space saving



Energy efficiency



COP 12.6% UP

Energy saving technology that boosted operation efficiency



Powerful large propeller fan

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

*1. CFD = Computational Fluid Dynamics



3 phase DC fan motor

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



Subcool heat exchanger

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



Sine-wave DC inverter control

High efficiency is realized by adoption of reduced switching loss IPM.



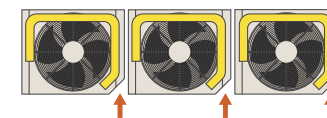
High efficient compressor Large capacity DC inverter compressor

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



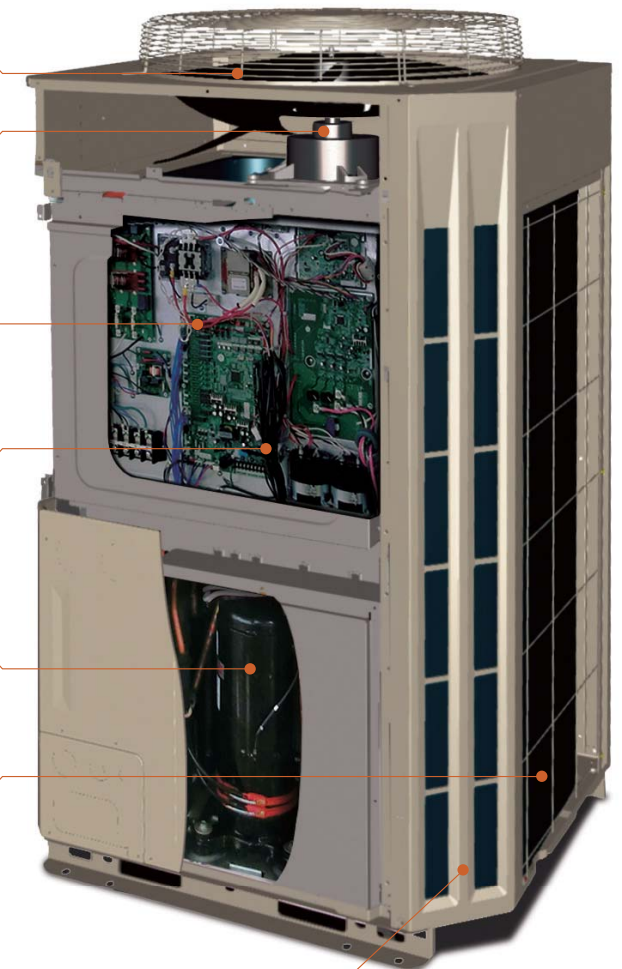
4-face heat exchanger

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



Front intake port (corner cut air inhaling structure)

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





All inverter compressor

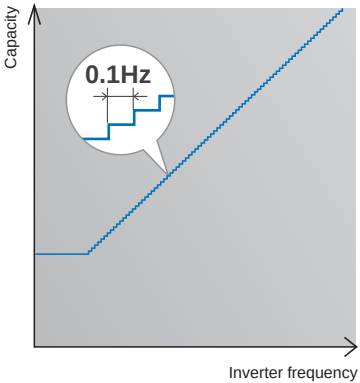
Large capacity DC inverter compressor

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



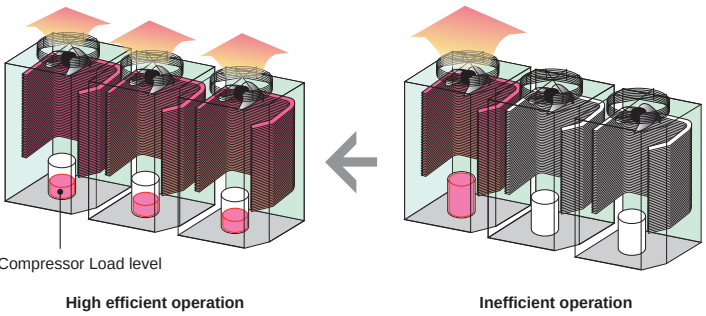
High efficient compressor speed control

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



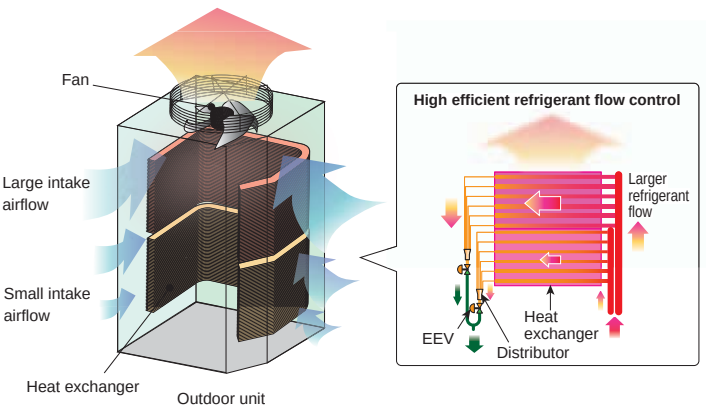
Multiple outdoor operation control

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 which allows for the overall system efficiency to be improved.



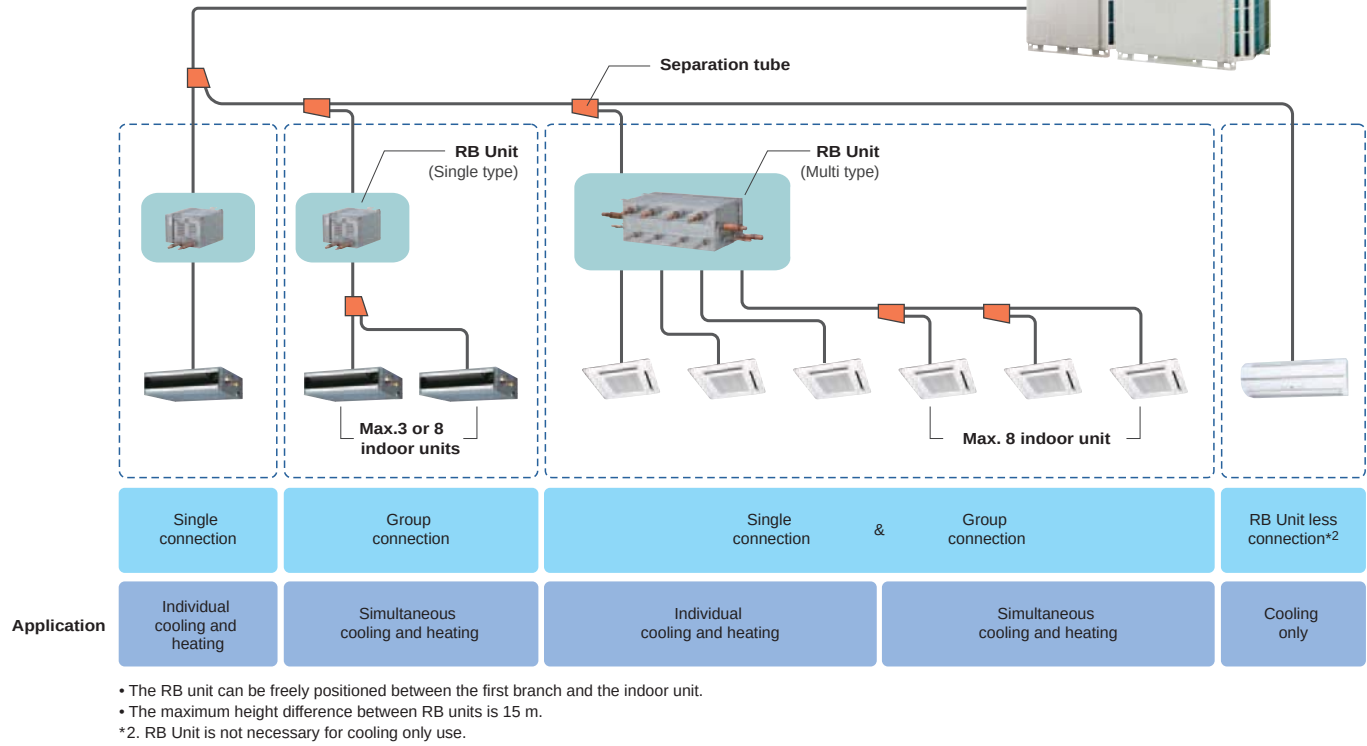
Heat exchanger refrigerant control

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.



Flexible piping connection

A more flexible refrigerant piping work is possible by the use of various piping and RB Unit connections, for adjustments to the floor layout and building structure.



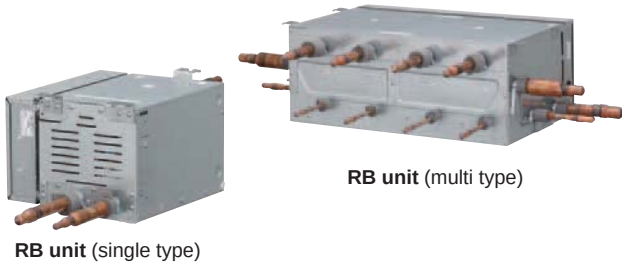
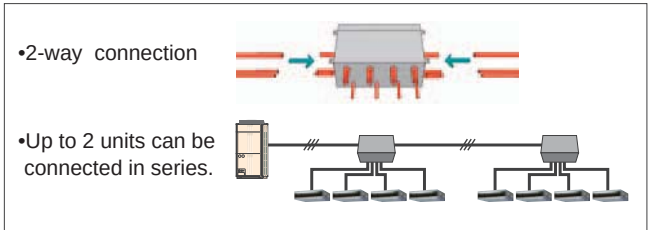
Flexible installation of RB unit



- Small & slim design saves space
- A drain pipe is not required
- The control box position can be changed to meet the installation conditions

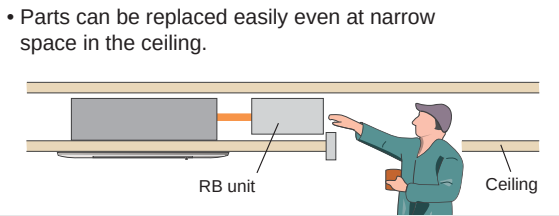


- Small design saves space
- A drain pipe is not required
- Simple installation series connection design



Easy to maintain in a narrow space

- Maintenance can be performed from the side.
- Electrics box can be temporarily fixed by sliding down.



Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combination

22.4kW (8HP)  AJYA72GALH UNIT : AJYA72GALH	28.0kW (10HP)  AJYA90GALH UNIT : AJYA90GALH	33.5kW (12HP)  AJY108GALH UNIT : AJY108GALH	40.0kW (14HP)  AJY126GALH UNIT : AJY126GALH	45.0kW (16HP)  AJY144GALH UNIT : AJY144GALH
50.4kW (18HP)  AJY162GALH UNIT : AJYA90/A72GALH	56.0kW (20HP)  AJY180GALH UNIT : AJYA90/A90GALH	61.5kW (22HP)  AJY198GALH UNIT : AJY108/A90GALH	67.0kW (24HP)  AJY216GALH UNIT : AJY108/108GALH	73.0kW (26HP)  AJY234GALH UNIT : AJY144/90GALH
78.5kW (28HP)  AJY252GALH UNIT : AJY144/108GALH	85.0kW (30HP)  AJY270GALH UNIT : AJY144/126GALH	90.0kW (32HP)  AJY288GALH UNIT : AJY144/144GALH	95.0kW (34HP)  AJY306GALH UNIT : AJY108/108/A90GALH	100.5kW (36HP)  AJY324GALH UNIT : AJY108/108/108GALH
106.5kW (38HP)  AJY342GALH UNIT : AJY144/108/A90GALH	112.0kW (40HP)  AJY360GALH UNIT : AJY144/108/108GALH	118.0kW (42HP)  AJY378GALH UNIT : AJY144/144/A90GALH	123.5kW (44HP)  AJY396GALH UNIT : AJY144/144/108GALH	130.0kW (46HP)  AJY414GALH UNIT : AJY144/144/126GALH
135.0kW (48HP)  AJY432GALH UNIT : AJY144/144/144GALH				

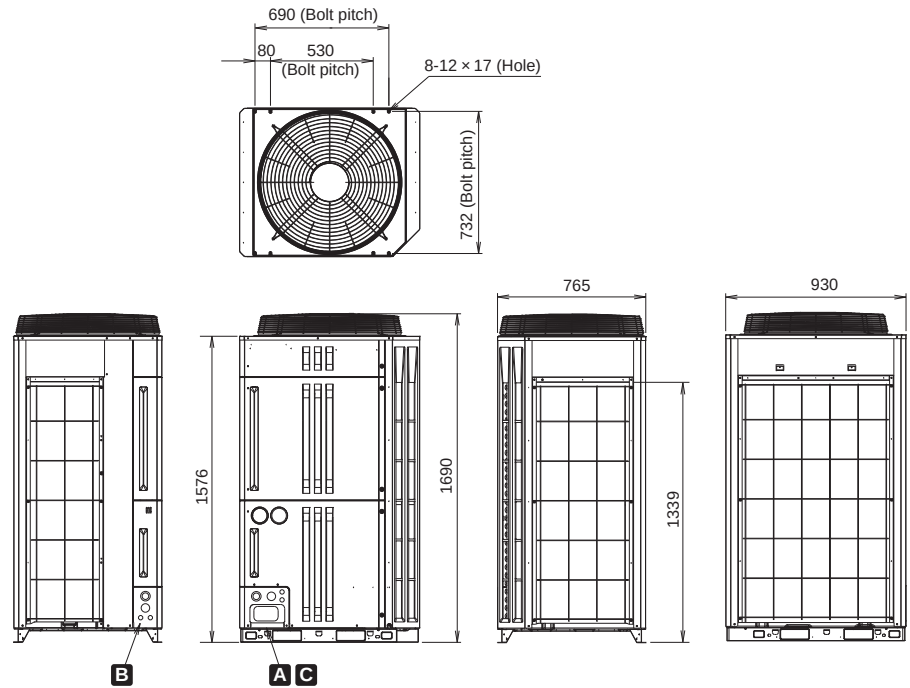
Energy efficiency combination

44.8kW (16HP)  AJY144GALHH UNIT : AJYA72/A72GALH	62.4kW (22HP)  AJY198GALHH UNIT : AJY126/A72GALH	67.2kW (24HP)  AJY216GALHH UNIT : AJYA72/A72/A72GALH	72.8kW (26HP)  AJY234LALHH UNIT : AJYA90/A72/A72LALH	78.4kW (28HP)  AJY252GALHH UNIT : AJYA90/A90/A72GALH
84.0kW (30HP)  AJY270GALHH UNIT : AJYA90/A90/A90GALH	90.4kW (32HP)  AJY288GALHH UNIT : AJY126/A90/A72GALH	96.0kW (34HP)  AJY306GALHH UNIT : AJY126/A90/A90GALH	102.4kW (36HP)  AJY324GALHH UNIT : AJY126/126/A72GALH	108.0kW (38HP)  AJY342GALHH UNIT : AJY126/126/A90GALH
113.0kW (40HP)  AJY360GALHH UNIT : AJY144/126/A90GALH	120.0kW (42HP)  AJY378GALHH UNIT : AJY126/126/126GALH	125.0kW (44HP)  AJY396GALHH UNIT : AJY144/126/126GALH		

Dimensions

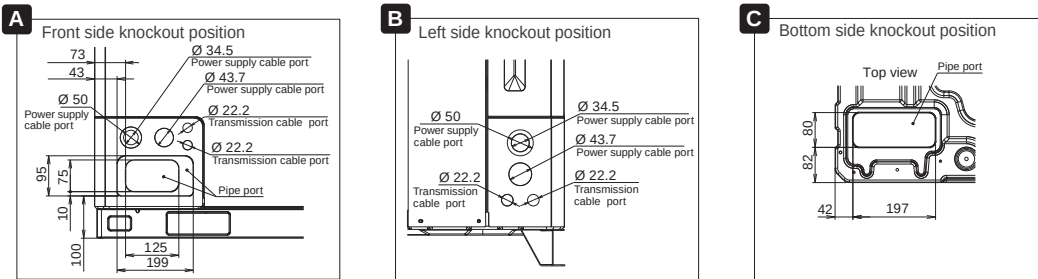
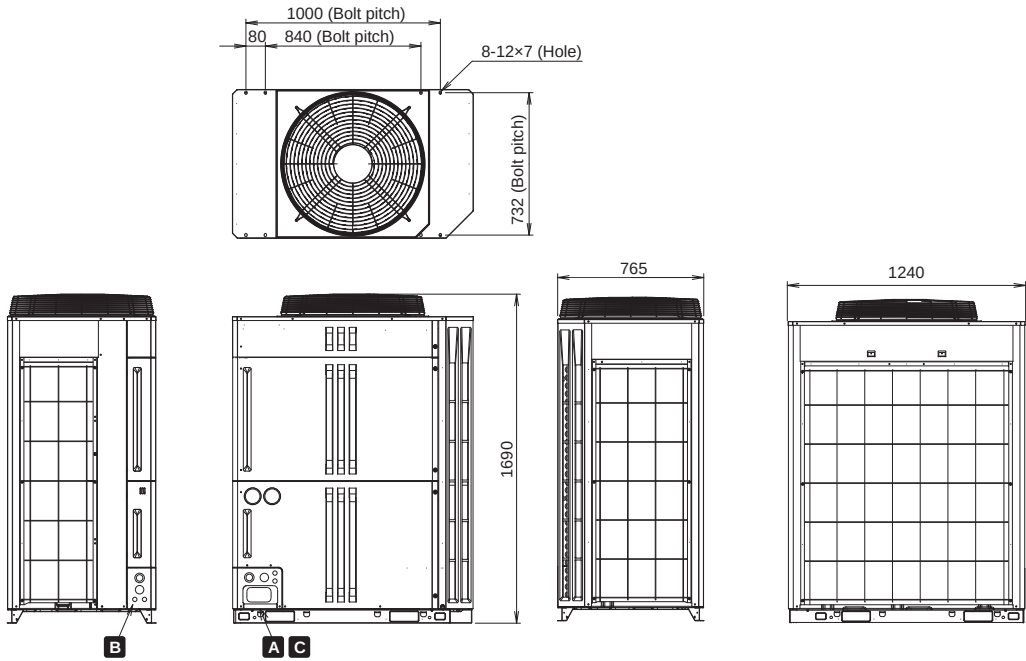
8,10,12HP : AJYA72GALH / AJYA90GALH / AJY108GALH

(Unit : mm)



14,16HP : AJY126GALH / AJY144GALH

(Unit : mm)



Outdoor units specifications

Space Saving Combination

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			AJYA72GALH	AJYA90GALH	AJY108GALH	AJY126GALH	AJY144GALH	AJY162GALH	AJY180GALH	AJY198GALH	AJY216GALH	AJY234GALH	AJY252GALH	AJY270GALH	AJY288GALH	AJY306GALH	AJY324GALH	AJY342GALH	AJY360GALH	AJY378GALH	AJY396GALH	AJY414GALH	AJY432GALH	
Unit 1 Unit 2 Unit 3			AJYA72GALH	AJYA90GALH	AJY108GALH	AJY126GALH	AJY144GALH	AJYA90GALH AJYA72GALH	AJYA90GALH AJYA90GALH	AJY108GALH AJYA90GALH	AJY108GALH AJY108GALH	AJY144GALH AJYA90GALH	AJY144GALH AJY108GALH	AJY144GALH AJY126GALH	AJY144GALH AJY144GALH	AJY108GALH AJYA90GALH	AJY108GALH AJY108GALH	AJY144GALH AJYA90GALH	AJY144GALH AJY108GALH	AJY144GALH AJY108GALH	AJY144GALH AJYA90GALH	AJY144GALH AJY108GALH	AJY144GALH AJY126GALH	AJY144GALH AJY144GALH
Maximum Connectable Indoor Unit*1			15	16	17	21	24	32	30	32	35	39	42	45	48	50	53	57	60	63	64	64	64	
Indoor unit connectable capacity	Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-84.0	30.8-92.2	33.5-100.5	36.5-109.5	39.3-117.7	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.7	53.3-159.7	56.0-168.0	59.0-177.0	61.8-185.2	65.0-195.0	67.5-202.5	
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	67.0	73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.0	123.5	130.0	135.0	
	Heating		25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	75.0	81.5	87.5	95.0	100.0	106.5	112.5	119.0	125.0	131.5	137.5	145.0	150.0	
Input power	Cooling	kW	5.45	7.11	9.75	11.34	13.61	12.56	14.22	16.86	19.50	20.72	23.36	24.95	27.22	26.61	29.25	30.47	33.11	34.33	36.97	38.56	40.83	
	Heating		5.70	7.33	9.62	10.90	12.77	13.03	14.66	16.95	19.24	20.10	22.39	23.67	25.54	26.57	28.86	29.72	32.01	32.87	35.16	36.44	38.31	
EER	Cooling	W/W	4.11	3.94	3.44	3.53	3.31	4.01	3.94	3.65	3.44	3.52	3.36	3.41	3.31	3.57	3.44	3.50	3.38	3.44	3.34	3.37	3.31	
COP	Heating		4.39	4.30	3.90	4.13	3.92	4.34	4.30	4.07	3.90	4.05	3.91	4.01	3.92	4.01	3.90	4.00	3.91	4.00	3.91	3.98	3.92	
Air flow rate	High	m³/h	11,100	11,100	11,100	13,000	13,000	11,100×2	11,100×2	11,100×2	11,100×2	13,000+11,100	13,000+11,100	13,000×2	13,000×2	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3	
Sound pressure level*2	Cooling	dB (A)	56	58	59	60	61	60	61	62	62	63	63	64	64	63	64	64	65	65	65	65	66	
	Heating		58	59	61	61	61	62	62	63	64	63	64	64	64	65	66	65	66	65	66	66	66	
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	7.5	11.0	11.0	7.5×2	7.5×2	7.5×2	7.5×2	11.0+7.5	11.0+7.5	11.0×2	11.0×2	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	
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	930	1,240	1,240	930×2	930×2	930×2	930×2	1,240+930	1,240+930	1,240×2	1,240×2	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	
	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	262	286	286	262×2	262×2	262×2	262×2	286+262	286+262	286×2	286×2	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×3	286×3	
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
Refrigerant 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		15.88	19.05	19.05	22.22	22.22	22.22	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	34.92	34.92	
	Suction Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	
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 Combination

Rating Capacity range			HP	16	22	24	26	28	30	32	34	36	38	40	42	44
																
Model name				AJY144GALHH	AJY198GALHH	AJY216GALHH	AJY234GALHH	AJY252GALHH	AJY270GALHH	AJY288GALHH	AJY306GALHH	AJY324GALHH	AJY342GALHH	AJY360GALHH	AJY378GALHH	AJY396GALHH
Unit 1 Unit 2 Unit 3				AJYA72GALH AJYA72GALH	AJY126GALH AJYA72GALH	AJYA72GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA90GALH	AJY126GALH AJYA90GALH AJYA72GALH	AJY126GALH AJYA90GALH AJYA90GALH	AJY126GALH AJY126GALH AJYA72GALH	AJY126GALH AJY126GALH AJYA90GALH	AJY144GALH AJY126GALH AJYA90GALH	AJY126GALH AJY126GALH AJY126GALH	AJY144GALH AJY126GALH AJY126GALH
Maximum Connectable Indoor Unit*1				24	33	36	39	42	45	48	51	54	57	60	64	64
Indoor unit connectable capacity		Cooling	kW	22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.6	42.4-126.0	45.2-135.6	48.0-144.0	51.2-153.6	54.0-162.0	56.5-169.5	60.0-180.0	62.5-187.5
Power source			3-phase 4 wire, 400 V, 50Hz													
Capacity	Cooling	kW	44.8	62.4	67.2	72.8	78.4	78.4	90.4	90.4	102.4	108.0	113.0	120.0	125.0	
	Heating		50.0	70.0	75.0	81.5	88.0	88.0	101.5	101.5	115.0	121.5	126.5	135.0	140.0	
Input power	Cooling	kW	10.90	16.79	16.35	18.01	19.67	19.67	23.90	23.90	28.13	29.79	32.06	34.02	36.29	
	Heating		11.40	16.60	17.10	18.73	20.36	20.36	23.93	23.93	27.50	29.13	31.00	32.70	34.57	
EER	Cooling	W/W	4.11	3.72	4.11	4.04	3.99	3.99	3.78	3.78	3.64	3.63	3.52	3.53	3.44	
COP	Heating		4.39	4.22	4.39	4.35	4.32	4.32	4.24	4.24	4.18	4.17	4.08	4.13	4.05	
Air flow rate	High	m³/h	11,100×2	13,000+11,100	11,100×3	11,100×3	11,100×3	11,100×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3	
Sound pressure level*2	Cooling	dB (A)	59	61	61	62	62	62	63	63	64	64	65	65	65	
	Heating		61	63	63	63	63	63	64	64	65	65	65	66	66	
Maximum external static pressure	Pa		80	80	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	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	11.0×2+7.5	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
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
	Width	mm	930×2	1,240+930	930×3	930×3	930×3	930×3	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	
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight	kg		262×2	286+262	262×3	262×3	262×3	262×3	286+262×2	286+262×2	286×2+262	286×2+262	286×2+262	286×2+262	286×3	286×3
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant 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	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Discharge Gas		22.22	28.58	28.58	28.58	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	
	Suction Gas		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	
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
	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	
	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

HEAT PUMP TYPE

NEW AIRSTAGE™ V-III series

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

System Outline



Excellent energy saving

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



High design flexibility for various building air conditioning

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



Easy installation and maintenance

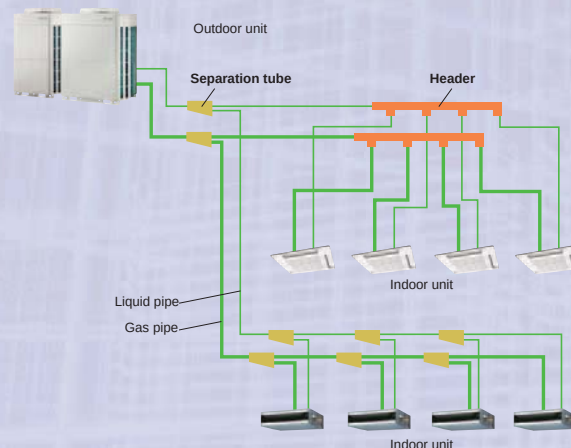
The flexible communication method and piping connections makes installation and maintenance easy even for large systems.



Large Office

System configuration example

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

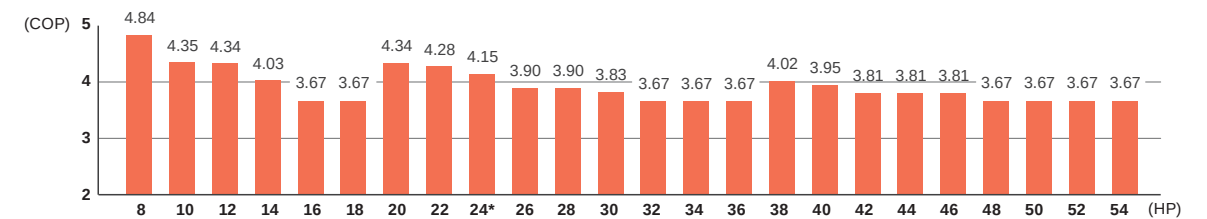


Features

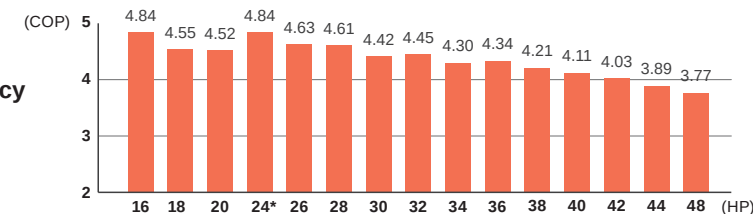
Efficiency in actual operation

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

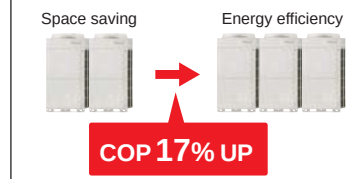
Space saving combination



Energy efficiency combination



For 24 HP Combination



Energy saving technology that boosted operation efficiency



Powerful large propeller fan

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



3 phase DC fan motor

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



Subcool heat exchanger

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



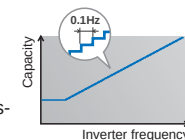
Sine-wave DC inverter control

High efficiency is realized by adoption of reduced switching loss IPM.



High efficient & Large capacity ALL DC inverter compressor

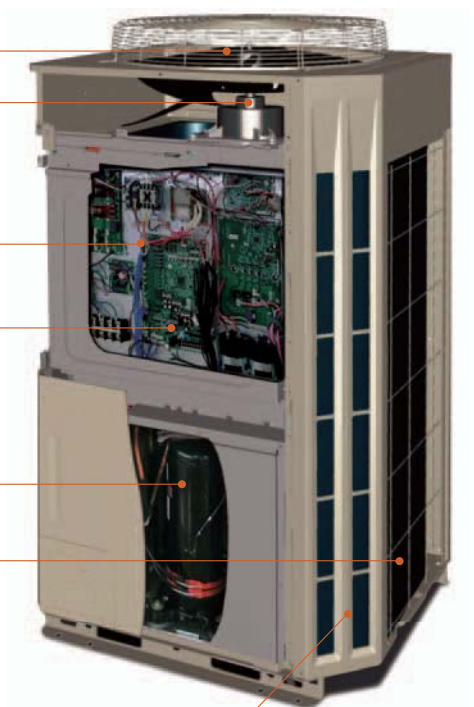
Large capacity high efficient DC twin rotary compressor with 0.1Hz steps compressor speed control



4-face heat exchanger

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

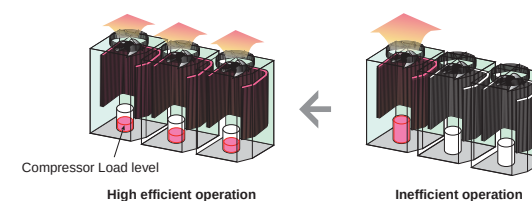
Front intake port (corner cut air inhaling structure)



Advanced energy saving control

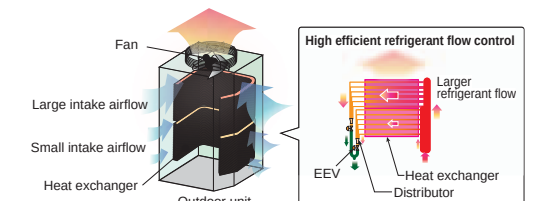
Multiple outdoor operation control

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



Heat exchanger refrigerant control

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



Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combination

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

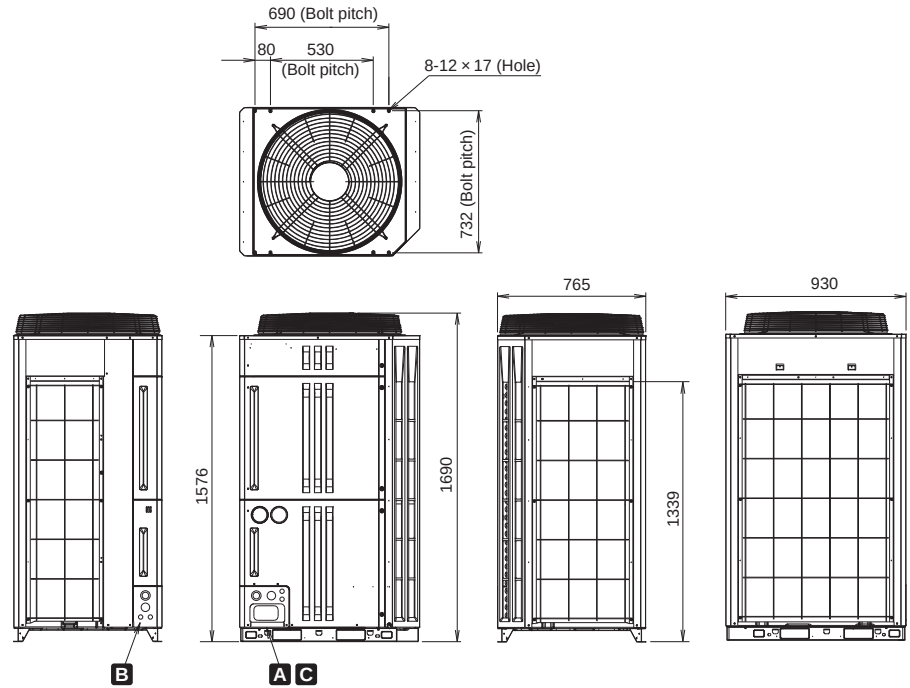
Energy efficiency combination

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

Dimensions

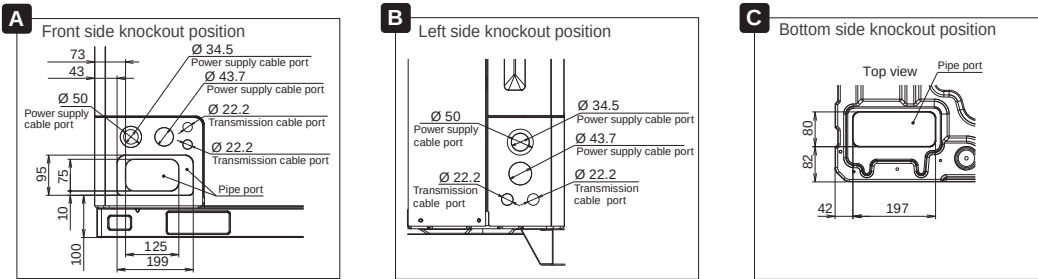
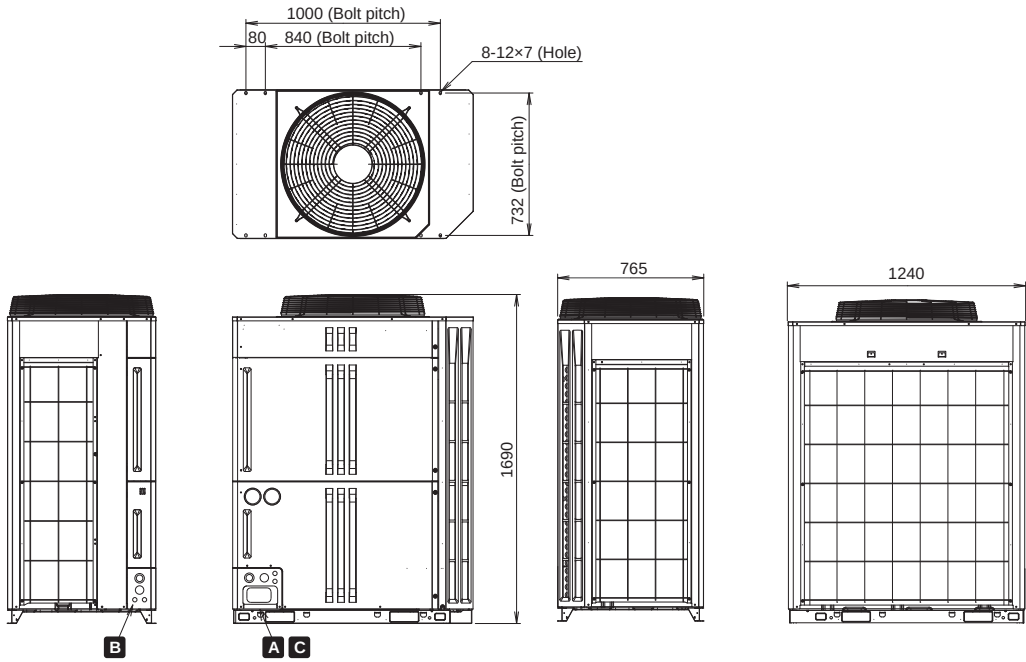
8,10HP : AJY072LALBH / AJY090LALBH

(Unit : mm)



12,14,16,18HP : AJY108LALBH / AJY126LALBH / AJY144LALBH / AJY162LALBH

(Unit : mm)



Outdoor units specifications

Space Saving Combination

Rating Capacity range		HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54
																										
Model name			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY162LALBH	AJY180LALBH	AJY198LALBH	AJY216LALBH	AJY234LALBH	AJY252LALBH	AJY270LALBH	AJY288LALBH	AJY306LALBH	AJY324LALBH	AJY342LALBH	AJY360LALBH	AJY378LALBH	AJY396LALBH	AJY414LALBH	AJY432LALBH	AJY450LALBH	AJY468LALBH	AJY486LALBH
Unit 1 Unit 2 Unit 3			AJY072LALBH	AJY090LALBH	AJY108LALBH	AJY126LALBH	AJY144LALBH	AJY162LALBH	AJY090LALBH AJY090LALBH	AJY126LALBH AJY072LALBH	AJY126LALBH AJY090LALBH	AJY144LALBH AJY090LALBH	AJY162LALBH AJY090LALBH	AJY144LALBH AJY126LALBH	AJY144LALBH AJY144LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY162LALBH	AJY162LALBH AJY090LALBH	AJY144LALBH AJY126LALBH	AJY144LALBH AJY090LALBH	AJY162LALBH AJY090LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY144LALBH	AJY162LALBH AJY162LALBH
Maximum Connectable Indoor Unit*1			17	21	26	30	34	39	43	47	52	56	60	64	64	64	64	64	64	64	64	64	64	64	64	
Indoor unit connectable capacity	Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.0-67.5	28.0-84.0	31.2-93.6	34.0-102.0	36.5-109.5	39.0-109.5	42.5-127.5	45.0-135.0	47.5-135.0	50.0-135.0	53.0-151.5	56.5-169.5	59.0-177.0	61.5-177.0	64.0-177.0	67.5-202.5	70.0-202.5	72.5-202.5	75.0-202.5
Power source			3-phase 4 wire, 400 V, 50Hz												3-phase 4 wire, 400 V, 50Hz											
Capacity	Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	62.4	68.0	73.0	78.0	85.0	90.0	95.0	100.0	106.0	113.0	118.0	123.0	128.0	135.0	140.0	145.0	150.0
	Heating		25.0	31.5	37.5	45.0	50.0	50.0	63.0	70.0	76.5	81.5	81.5	95.0	100.0	100.0	100.0	113.0	126.5	131.5	131.5	150.0	150.0	150.0	150.0	
	Cooling		5.20	7.28	8.96	10.96	13.01	16.56	14.56	16.16	18.24	20.29	23.84	23.97	26.02	29.57	33.12	31.12	31.25	33.30	36.85	40.40	39.03	42.58	46.13	49.68
Input power	Heating	kW	5.17	7.25	8.65	11.17	13.63	13.63	14.50	16.34	18.42	20.88	20.88	24.80	27.26	27.26	27.26	28.13	32.05	34.51	34.51	34.51	40.89	40.89	40.89	40.89
	Cooling		4.31	3.85	3.74	3.65	3.46	3.02	3.85	3.86	3.73	3.60	3.27	3.55	3.46	3.21	3.02	3.41	3.62	3.54	3.34	3.17	3.46	3.29	3.14	3.02
EER	Cooling	W/W	4.84	4.35	4.34	4.03	3.67	3.67	4.34	4.28	4.15	3.90	3.90	3.83	3.67	3.67	3.67	4.02	3.95	3.81	3.81	3.81	3.67	3.67	3.67	3.67
COP	Heating																									
Air flow rate	High	m³/h	11,100	11,100	13,000	13,000	13,700	13,700	11,100×2	13,000+11,100	13,000+11,100	13,000+11,100	13,700+11,100	13,700+13,000	13,700×2	13,700×2	13,700×2	13,700×2	13,700+11,100×2	13,700+13,000+11,100	13,700×2+11,100	13,700×2+11,100	13,700×2+11,100	13,700×3	13,700×3	13,700×3
Sound pressure level*2	Cooling	dB (A)	56	58	57	60	62	63	61	61	62	63	64	64	65	66	66	66	65	66	66	67	67	67	67	68
	Heating		58	59	60	62	64	64	62	63	64	65	65	66	67	67	67	66	67	68	68	68	69	69	69	69
Maximum external static pressure		Pa	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Compressor motor output		kW	7.5	7.5	11.0	11.0	11.0	11.0	7.5×2	11.0+7.5	11.0+7.5	11.0+7.5	11.0+7.5	11.0×2	11.0×2	11.0×2	11.0×2	11.0×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions	Height	mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
	Width		930	930	1,240	1,240	1,240	1,240	930×2	1,240+930	1,240+930	1,240+930	1,240+930	1,240×2	1,240×2	1,240×2	1,240×2	1,240×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3
	Depth		765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765
Weight		kg	252	252	275	275	275	275	252×2	275+252	275+252	275+252	275+252	275×2	275×2	275×2	275×2	275×2	275+252×2	275×2+252	275×2+252	275×2+252	275×3	275×3	275×3	275×3
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge		kg	11.7	11.7	11.8	11.8	11.8	11.8	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	11.8×2	11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
	Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation range	Cooling	°C	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	
	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	

Energy Efficiency Combination

Rating Capacity range		HP	16	18	20	24	26	28	30	32	34	36	38	40	42	44	46	
																		
Model name			AJY144LALBHH	AJY162LALBHH	AJY180LALBHH	AJY216LALBHH	AJY234LALBHH	AJY252LALBHH	AJY270LALBHH	AJY288LALBHH	AJY306LALBHH	AJY324LALBHH	AJY342LALBHH	AJY360LALBHH	AJY378LALBHH	AJY396LALBHH	AJY396LALBHH	
Unit 1 Unit 2 Unit 3			AJY072LALBH AJY072LALBH	AJY090LALBH AJY072LALBH	AJY108LALBH AJY072LALBH	AJY072LALBH AJY072LALBH AJY072LALBH	AJY090LALBH AJY072LALBH AJY072LALBH	AJY108LALBH AJY072LALBH AJY072LALBH	AJY126LALBH AJY072LALBH AJY072LALBH	AJY108LALBH AJY108LALBH AJY072LALBH	AJY126LALBH AJY108LALBH AJY072LALBH	AJY108LALBH AJY108LALBH AJY108LALBH	AJY126LALBH AJY108LALBH AJY108LALBH	AJY126LALBH AJY108LALBH AJY108LALBH	AJY126LALBH AJY126LALBH AJY108LALBH	AJY144LALBH AJY126LALBH AJY126LALBH	AJY144LALBH AJY126LALBH AJY126LALBH	
Maximum Connectable Indoor Unit*1			34	39	43	52	56	60	64	64	64	64	64	64	64	64	64	
Indoor unit connectable capacity		Cooling	kW	22.4-67.2	25.2-75.6	28.0-83.8	33.6-100.8	36.4-109.2	39.2-117.4	42.4-127.2	44.7-134.1	48.0-143.8	50.3-150.7	53.5-160.5	56.8-170.2	60.0-180.0	62.5-187.5	65.0-195.0
Power source			3-phase 4 wire, 400 V, 50Hz												3-phase 4 wire, 400 V, 50Hz			
Capacity	Cooling	kW	44.8	50.4	55.9	67.2	72.8	78.3	84.8	89.4	95.9	100.5	107.0	113.5	120.0	125.0	130.0	
	Heating		50.0	56.5	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0	140.0	145.0	
Input power	Cooling	kW	10.40	12.48	14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88	34.93	36.98	
	Heating		10.34	12.42	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51	35.97	38.43	
EER	Cooling	W/W	4.31	4.04	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65	3.58	3.52	
COP	Heating		4.84	4.55	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03	3.89	3.77	
Air flow rate	High	m³/h	11,100×2	11,100×2	13,000+11,100	11,100×3	11,000×3	13,000+11,100×2	13,000+11,100×2	13,000×2+11,100	13,000×2+11,100	13,000×3	13,000×3	13,000×3	13,000×3	13,700+13,000×2	13,700×2+13,000	
Sound pressure level*2	Cooling	dB (A)	59	60	60	61	62	61	63	61	63	63	64	64	65	66	66	
	Heating		61	62	62	63	63	64	65	64	65	65	65	66	67	68	68	
Maximum external static pressure	Pa		82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	
Compressor motor output	kW		7.5×2	7.5×2	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	11.0×3	
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	
Dimensions	Height	mm	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	
	Width	mm	930×2	930×2	1,240+930	930×3	930×3	1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3	1,240×3	
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765	765	765	765	765	
Weight	kg		252×2	252×2	275+252	252×3	252×3	275+252×2	275+252×2	275×2+252	275×2+252	275×3	275×3	275×3	275×3	275×3	275×3	
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
Refrigerant charge			kg	11.7×2	11.7×2	11.8+11.7	11.7×3	11.7×3	11.8+11.7×2	11.8×3	11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	
	Gas		28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	
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	-5 to 46	-5 to 46	-5 to 46	
	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	

HEAT PUMP TYPE

AIRSTAGE™ V-II series

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

System Outline



Excellent energy savings

Heat pump type inverter control is used to achieve economic cooling and heating operation for individual air conditioning to entire air conditioning.



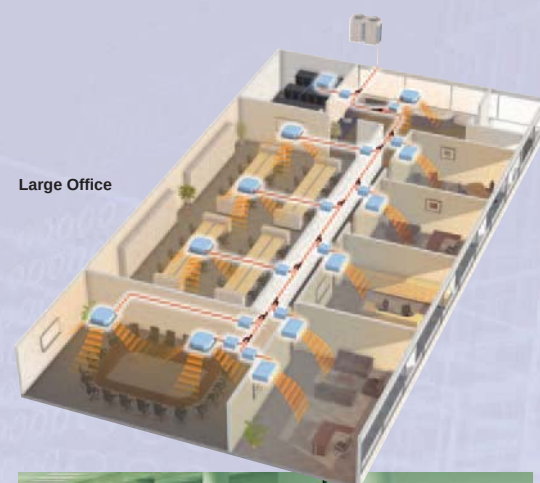
High design flexibility for various building air conditioning

The high static pressure design flexibly meets the needs of high rise buildings including easy installation on each floor.



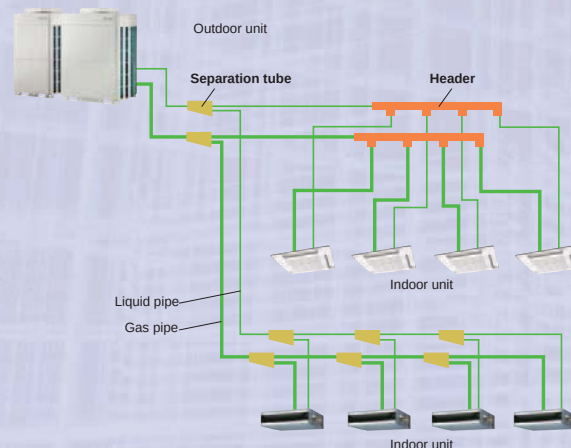
Easy installation and maintenance

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



System configuration example

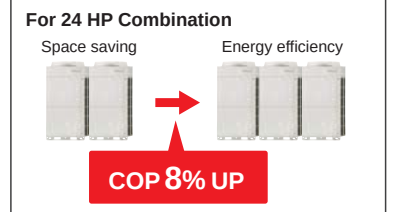
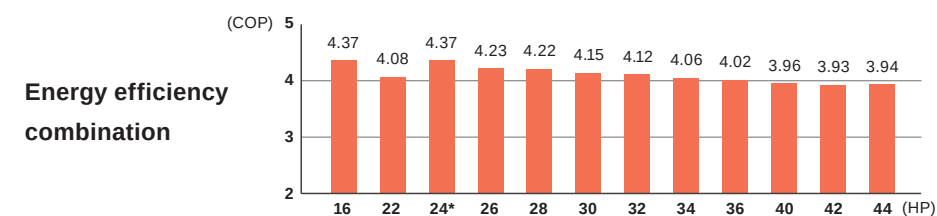
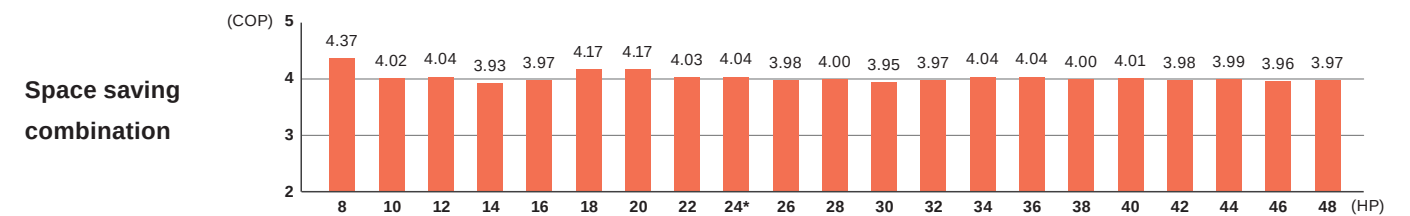
- This system is used for medium-sized and large buildings. Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.



Features

Efficiency in actual operation

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



Energy saving technology that boosted operation efficiency



Powerful large propeller fan

By using CFD^{*1} technology, A newly designed fan achieves high performance and low noise operation.

*1. CFD = Computational Fluid Dynamics



DC fan motor

Power consumption has been reduced by 25% compared to previous models by using a compact and high performance DC fan motor.



Subcool heat exchanger

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



Sine-wave DC inverter control

High efficiency operation is realized by using a sine wave DC inverter control.



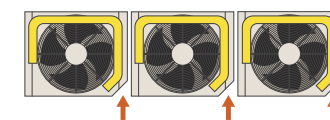
DC twin rotary compressor

Significantly greater efficiency is realized by use of a large capacity DC twin rotary compressor with substantially increased refrigerant intake and compression efficiency.



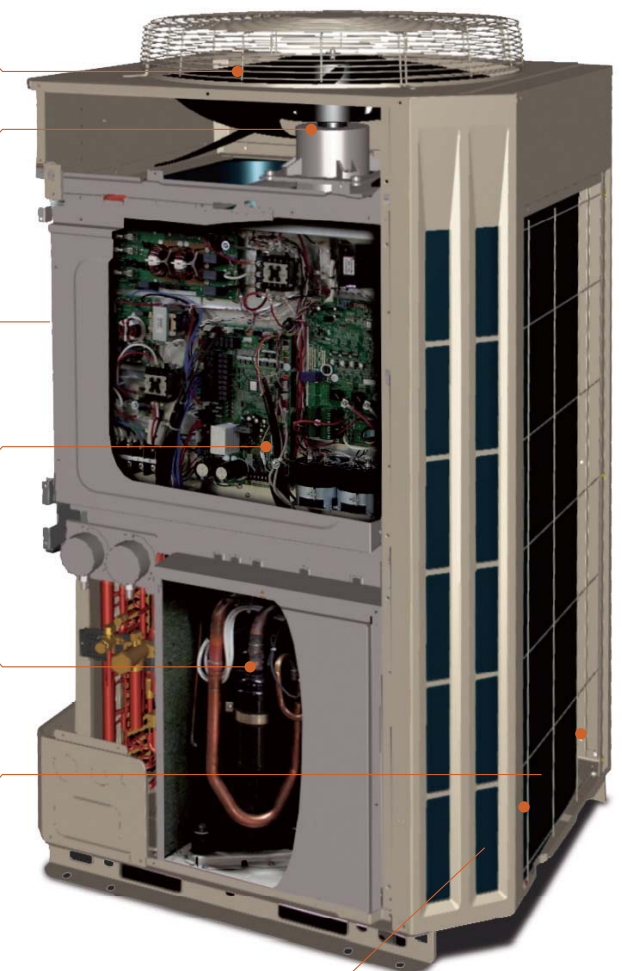
4-face heat exchanger

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



Front intake port (Corner cut air inhaling structure)

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



Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combination

22.4kW (8HP)  AJYA72LALH UNIT : AJYA72LALH	28.0kW (10HP)  AJYA90LALH UNIT : AJYA90LALH	33.5kW (12HP)  AJY108LALH UNIT : AJY108LALH	40.0kW (14HP)  AJY126LALH UNIT : AJY126LALH	45.0kW (16HP)  AJY144LALH UNIT : AJY144LALH
50.4kW (18HP)  AJY162LALH UNIT : AJYA90/A72LALH	55.9kW (20HP)  AJY180LALH UNIT : AJY108/A72LALH	61.5kW (22HP)  AJY198LALH UNIT : AJY108/A90LALH	67.0kW (24HP)  AJY216LALH UNIT : AJY108/108LALH	73.5kW (26HP)  AJY234LALH UNIT : AJY126/108LALH
78.5kW (28HP)  AJY252LALH UNIT : AJY144/108LALH	85.0kW (30HP)  AJY270LALH UNIT : AJY144/126LALH	90.0kW (32HP)  AJY288LALH UNIT : AJY144/144LALH	95.0kW (34HP)  AJY306LALH UNIT : AJY108/108/A90LALH	100.5kW (36HP)  AJY324LALH UNIT : AJY108/108/108LALH
107.0kW (38HP)  AJY342LALH UNIT : AJY126/108/108LALH	112.0kW (40HP)  AJY360LALH UNIT : AJY144/108/108LALH	118.5kW (42HP)  AJY378LALH UNIT : AJY144/126/108LALH	123.5kW (44HP)  AJY396LALH UNIT : AJY144/144/108LALH	130.0kW (46HP)  AJY414LALH UNIT : AJY144/144/126LALH
135.0kW (48HP)  AJY432LALH UNIT : AJY144/144/144LALH				

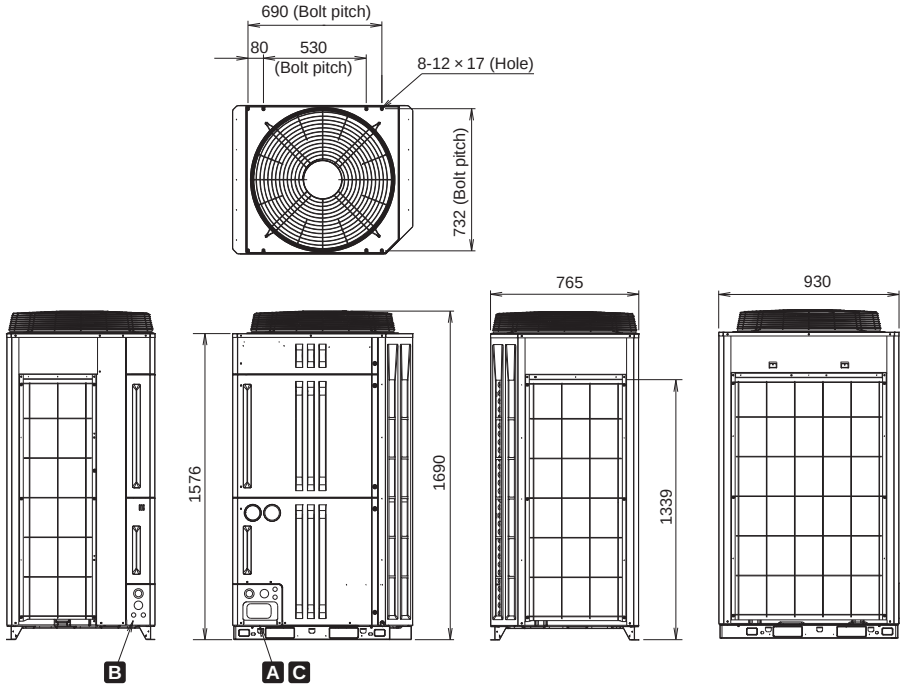
Energy efficiency combination

44.8kW (16HP)  AJY144LALHH UNIT : AJYA72/A72LALH	62.4kW (22HP)  AJY198LALHH UNIT : AJY126/A72LALH	67.2kW (24HP)  AJY216LALHH UNIT : AJYA72/A72/A72LALH	72.8kW (26HP)  AJY234LALHH UNIT : AJYA90/A72/A72LALH	78.3kW (28HP)  AJY252LALHH UNIT : AJY108/A72/A72LALH
84.8kW (30HP)  AJY270LALHH UNIT : AJY126/A72/A72LALH	89.8kW (32HP)  AJY288LALHH UNIT : AJY108/108/A72LALH	95.9kW (34HP)  AJY306LALHH UNIT : AJY126/108/A72LALH	102.4kW (36HP)  AJY324LALHH UNIT : AJY126/126/A72LALH	113.5kW (40HP)  AJY360LALHH UNIT : AJY126/126/108LALH
120.0kW (42HP)  AJY378LALHH UNIT : AJY126/126/126LALH	125.0kW (44HP)  AJY396LALHH UNIT : AJY144/126/126LALH			

Dimensions

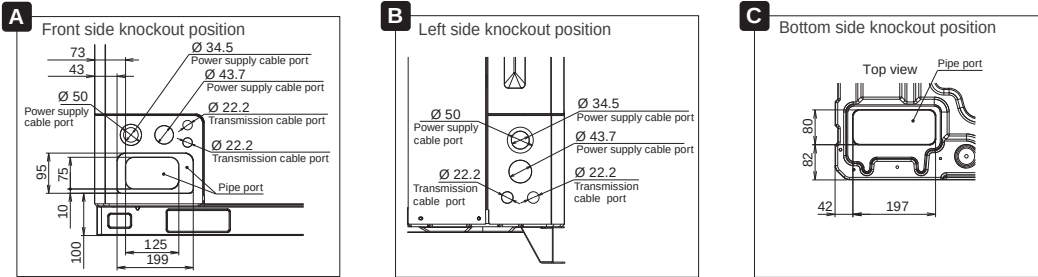
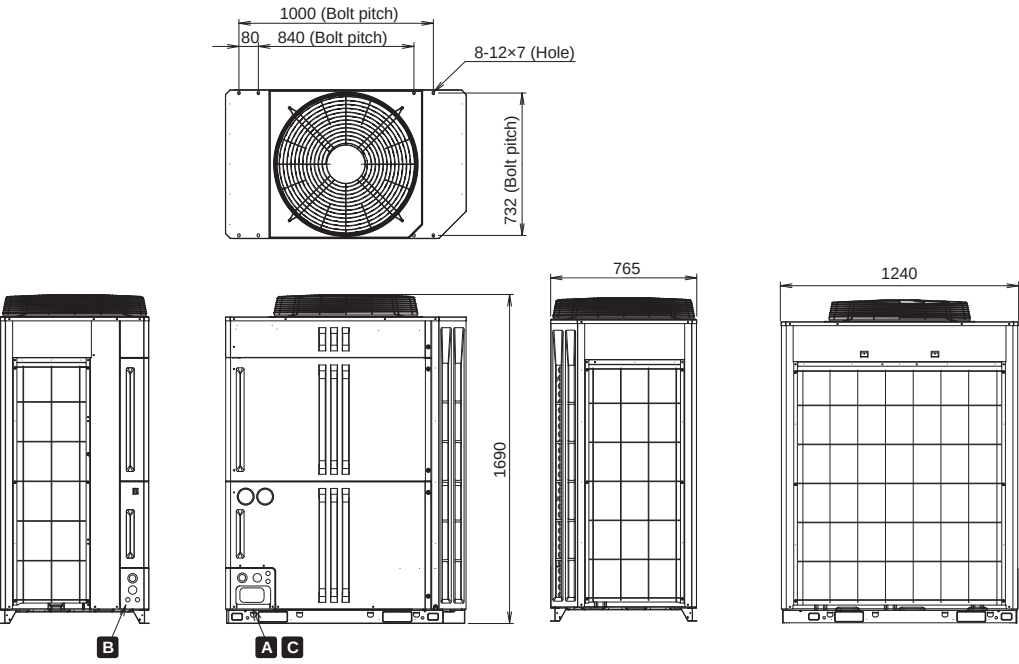
8,10,12HP : AJYA72LALH / AJYA90LALH / AJY108LALH

(Unit : mm)



14,16HP : AJY126LALH / AJY144LALH

(Unit : mm)



Outdoor units specifications

Space Saving Combination

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			AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY144LALH	AJY162LALH	AJY180LALH	AJY198LALH	AJY216LALH	AJY234LALH	AJY252LALH	AJY270LALH	AJY288LALH	AJY306LALH	AJY324LALH	AJY342LALH	AJY360LALH	AJY378LALH	AJY396LALH	AJY414LALH	AJY432LALH	
Unit 1 Unit 2 Unit 3			AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY144LALH	AJYA90LALH AJYA72LALH	AJY108LALH AJYA72LALH	AJY108LALH AJYA90LALH	AJY108LALH AJY108LALH	AJY126LALH AJY108LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH	AJY144LALH AJY144LALH	AJY108LALH AJY108LALH AJYA90LALH	AJY108LALH AJY108LALH	AJY126LALH AJY108LALH	AJY126LALH AJY108LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH	
Maximum Connectable Indoor Unit*1			15	16	17	21	24	32	32	32	35	39	42	45	48	48	48	48	48	48	48	48	48	
Indoor unit connectable capacity		Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-83.8	30.8-92.2	33.5-100.5	36.8-110.2	39.3-117.7	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.7	53.5-160.5	56.0-168.0	59.3-177.7	61.8-185.2	65.0-195.0	67.5-202.5
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	55.9	61.5	67.0	73.5	78.5	85.0	90.0	95.0	100.5	107.0	112.0	118.5	123.5	130.0	135.0	
	Heating		25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0	82.5	87.5	95.0	100.0	106.5	112.5	120.0	125.0	132.5	137.5	145.0	150.0	
Input power	Cooling	kW	5.51	7.73	9.62	11.53	14.17	13.24	15.13	17.35	19.24	21.15	23.79	25.70	28.34	26.97	28.86	30.77	33.41	35.32	37.96	39.87	42.51	
	Heating		5.72	7.83	9.28	11.45	12.60	13.55	15.00	17.11	18.56	20.73	21.88	24.05	25.20	26.39	27.84	30.01	31.16	33.33	34.48	36.65	37.80	
EER	Cooling	W/W	4.07	3.62	3.48	3.47	3.18	3.81	3.69	3.54	3.48	3.48	3.30	3.31	3.18	3.52	3.48	3.48	3.35	3.36	3.25	3.26	3.18	
COP	Heating		4.37	4.02	4.04	3.93	3.97	4.17	4.17	4.03	4.04	3.98	4.00	3.95	3.97	4.04	4.04	4.00	4.01	3.98	3.99	3.96	3.97	
Air flow rate	High	m³/h	11,100	11,100	11,100	13,000	13,000	11,100 x 2	11,100 x 2	11,100 x 2	11,100 x 2	13,000 + 11,100	13,000 + 11,100	13,000 x 2	13,000 x 2	11,100 x 3	11,100 x 3	13,000 + 11,100 x 2	13,000 + 11,100 x 2	13,000 x 2 + 11,100	13,000 x 2 + 11,100	13,000 x 3	13,000 x 3	
Sound pressure level*2	Cooling	dB (A)	56	58	58	60	61	60	60	61	61	62	63	64	64	64	63	63	64	65	65	65	66	
	Heating		58	59	60	61	61	62	62	63	63	64	64	64	64	64	65	65	65	65	65	66	66	
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		3.9	3.9	3.9 + 4.5	3.9 + 4.5	3.9 + 4.5	3.9 x 2	3.9 x 2 + 4.5	3.9 x 2 + 4.5	3.9 x 2 + 4.5 x 2	3.9 x 2 + 4.5 x 2	3.9 x 2 + 4.5 x 2	3.9 x 2 + 4.5 x 2	3.9 x 2 + 4.5 x 2	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	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	930	1,240	1,240	930 x 2	930 x 2	930 x 2	930 x 2	930 + 1,240	930 + 1,240	1,240 x 2	1,240 x 2	930 x 3	930 x 3	930 x 2 + 1,240	930 x 2 + 1,240	930 + 1,240 x 2	930 + 1,240 x 2	1,240 x 3	1,240 x 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		220	220	275	303	303	220 + 220	275 + 220	275 + 220	275 + 275	303 + 275	303 + 275	303 + 303	303 + 303	275 + 275 + 220	275 + 275 + 275	303 + 275 + 275	303 + 275 + 275	303 + 303 + 275	303 + 303 + 275	303 + 303 + 303	303 + 303 + 303	
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
Refrigerant charge			11.2	11.2	11.8	11.8	11.8	11.2 x 2	11.8 + 11.2	11.8 + 11.2	11.8 x 2	11.8 x 2	11.8 x 2	11.8 x 2	11.8 x 2	11.8 x 2 + 11.2	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 3	11.8 x 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	
	Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27	
Operation range	Cooling	°C	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	
	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	

Energy Efficiency Combination

Rating Capacity range			HP	16	22	24	26	28	30	32	34	36	40	42	44
															
Model name				AJY144LALHH	AJY198LALHH	AJY216LALHH	AJY234LALHH	AJY252LALHH	AJY270LALHH	AJY288LALHH	AJY306LALHH	AJY324LALHH	AJY360LALHH	AJY378LALHH	AJY396LALHH
Unit 1				AJYA72LALH	AJY126LALH	AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY108LALH	AJY126LALH	AJY126LALH	AJY126LALH	AJY126LALH	AJY144LALH
Unit 2				AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJY126LALH	AJY126LALH
Unit 3						AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJYA72LALH	AJY108LALH	AJY126LALH	
Maximum Connectable Indoor Unit*1				30	33	36	39	42	45	48	48	48	48	48	48
Indoor unit connectable capacity		Cooling	kW	22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.4	42.4-127.2	44.7-134.1	48.0-143.8	51.2-153.6	56.8-170.2	60.0-180.0	62.5-187.5
Power source				3-phase 4 wire, 400 V, 50Hz									3-phase 4 wire, 400 V, 50Hz		
Capacity	Cooling	kW	44.8	62.4	67.2	72.8	78.3	84.8	89.4	95.9	102.4	113.5	120.0	125.0	
	Heating		50.0	70.0	75.0	81.5	87.5	95.0	100.0	107.5	115.0	127.5	135.0	140.0	
Input power	Cooling	kW	11.02	17.04	16.53	18.75	20.64	22.55	24.75	26.66	28.57	32.68	34.59	37.23	
	Heating		11.44	17.17	17.16	19.27	20.72	22.89	24.28	26.45	28.62	32.18	34.35	35.50	
EER	Cooling	W/W	4.07	3.66	4.07	3.88	3.79	3.76	3.61	3.60	3.58	3.47	3.47	3.36	
COP	Heating		4.37	4.08	4.37	4.23	4.22	4.15	4.12	4.06	4.02	3.96	3.93	3.94	
Air flow rate	High	m³/h	11,100 x 2	13,000 + 11,100	11,100 x 3	11,100 x 3	11,100 x 3	13,000 + 11,000 x 2	11,100 x 3	13,000 + 11,100 x 2	13,000 x 2 + 11,100	13,000 x 2 + 11,100	13,000 x 3	13,000 x 3	
Sound pressure level*2	Cooling	dB (A)	59	61	61	62	62	63	62	63	64	64	65	65	
	Heating		59	62	61	62	63	63	64	64	65	65	66	66	
Maximum external static pressure	Pa		80	80	80	80	80	80	80	80	80	80	80	80	
Compressor motor output	kW		3.9 x 2	3.9 x 2 + 4.5	3.9 x 3	3.9 x 3	3.9 x 3 + 4.5	3.9 x 3 + 4.5	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 2	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	3.9 x 3 + 4.5 x 3	
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	
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 x 2	930 + 1,240	930 x 3	930 x 3	930 x 3	930 x 2 + 1,240	930 x 3	930 x 2 + 1,240	930 + 1,240 x 2	930 + 1,240 x 2	1,240 x 3	1,240 x 3	
	Depth	mm	765	765	765	765	765	765	765	765	765	765	765	765	
Weight	kg		220 + 220	303 + 220	220 + 220 + 220	220 + 220 + 220	275 + 220 + 220	303 + 220 + 220	275 + 275 + 220	303 + 275 + 220	303 + 303 + 220	303 + 303 + 275	303 + 303 + 303	303 + 303 + 303	
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	11.2 x 2	11.8 + 11.2	11.2 x 3	11.2 x 3	11.8 + 11.2 x 2	11.8 + 11.2 x 2	11.8 x 2 + 11.2	11.8 x 2 + 11.2	11.8 x 2 + 11.2	11.8 x 3	11.8 x 3	11.8 x 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	
	Gas		28.58	34.92	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		-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	

HEAT PUMP TYPE

AIRSTAGE™ J-II series

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

System Outline



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



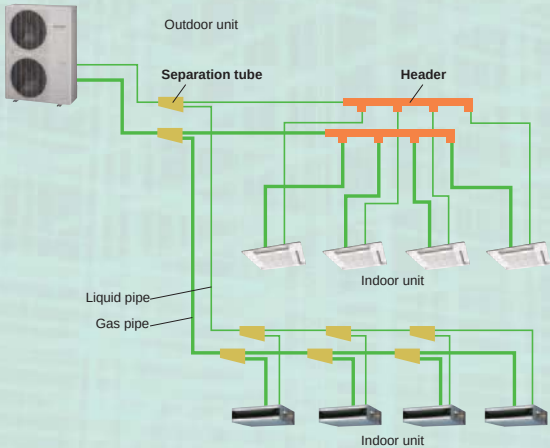
Flexible systems for small- and medium-size buildings air conditioning
Space saving design and long piping design allow for flexible installation on the roofs or balconies of small- and medium-size buildings. Multiple indoor units of various capacities and types can be connected.

Small Office



System configuration example

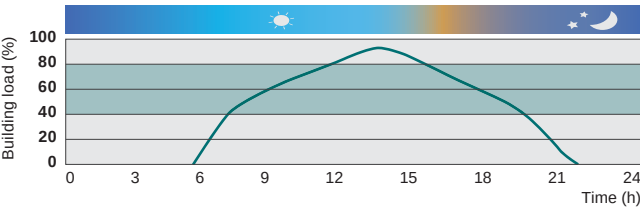
- This system is used for small and medium-sized buildings. 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers.



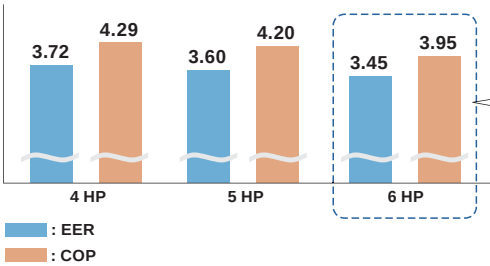
Features

The building load is in the range of 40 % to 80%. Therefore, most air conditioners do not operate at maximum load, but operate at low to medium loads. Especially, for multi system, operation performance at partial load is important because air conditioners do not always operate at full load all the time. Aiming at energy saving performance matched to actual operation, Fujitsu General has developed a high performance air conditioner corresponding not only during the rated performance at 100% load, but also at low to medium load

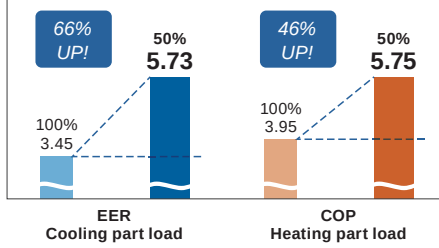
Load curve (a typical office building)



High EER / COP



High part load performance (6HP class)



Conditions :
Connected indoor units:
AUXA30GALH + AUXD24GALH
Cooling: indoor temp. of 27°CDB / 19°CWB,
outdoor temp. of 35°CDB / 24°CWB
Heating: indoor temp. of 20°CDB / 15°CWB,
outdoor temp. of 7°CDB / 6°CWB

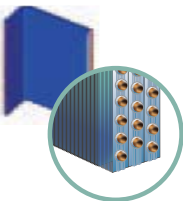
Advanced high efficiency technology



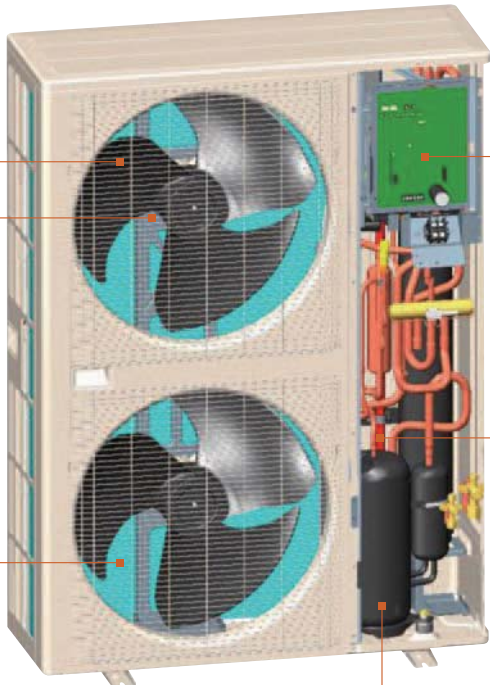
Large propeller fan
High performance and low noise realized by large propeller and optimization of angle.



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



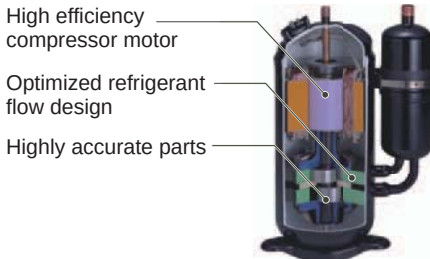
Large heat exchanger
Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.



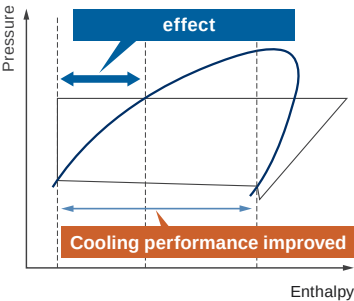
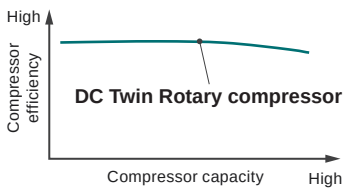
DC inverter control
Efficiency is improved by mounting of new active filter module.



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

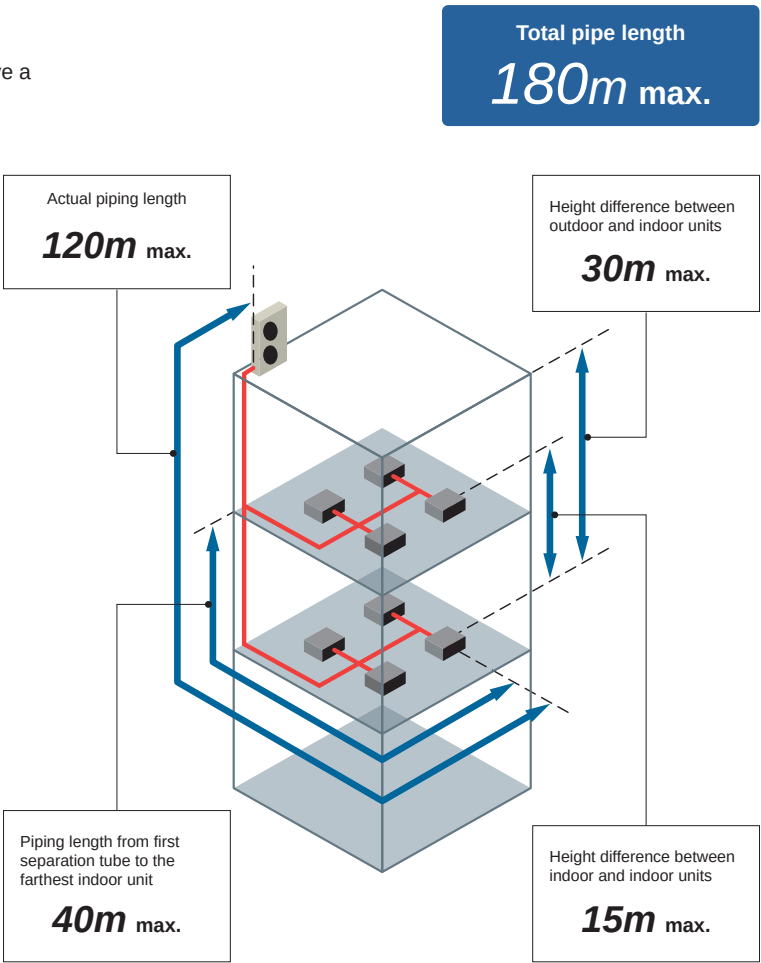


DC twin rotary compressor
Efficiency in all load regions is good. Especially good performance from low to medium at normal operation.



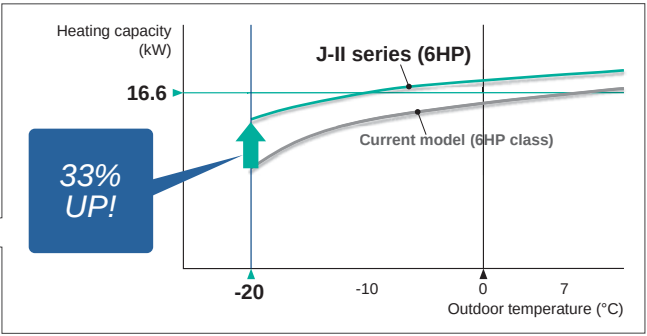
Long Piping Length

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



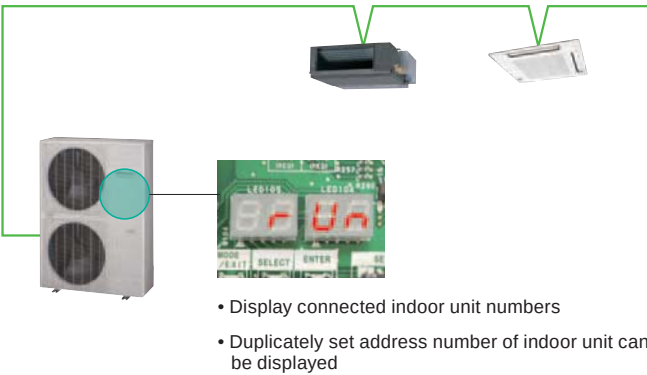
Powerful Heating

Heating capacity is improved at low outdoor temperature by our advanced technology.



Easier Installation

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



Specifications

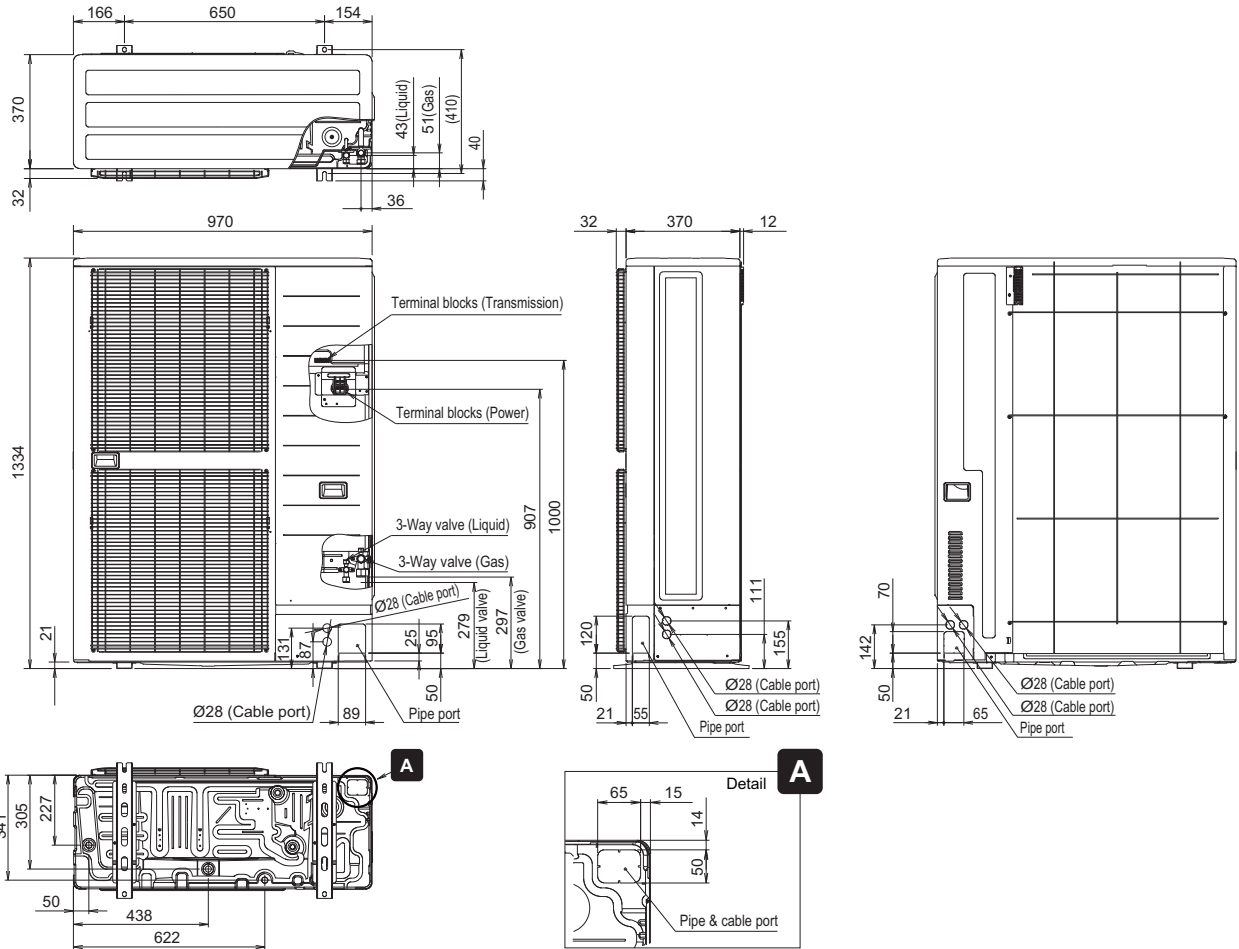
Rating Capacity range		HP	4	5	6
Model name			AJYA40LALH	AJYA45LALH	AJYA54LALH
Maximum Connectable Indoor Unit			7	8	9
Power source			Single-phase, ~230V, 50Hz		Single-phase, ~230V, 50Hz
Capacity	Cooling	kW	12.1	14.0	15.5
	Heating	kW	13.6	16.0	18.0
Input power	Cooling	kW	3.25	3.89	4.49
	Heating	kW	3.17	3.81	4.56
EER	Cooling	W/W	3.72	3.60	3.45
	Heating	W/W	4.29	4.20	3.95
Air flow rate		m³/h	6,200	6,400	6,900
Sound pressure level	Cooling	dB (A)	50	51	53
	Heating	dB (A)	52	53	55
Heat exchanger fin			Blue fin	Blue fin	Blue fin
Dimensions	Height	mm	1,334	1,334	1,334
	Width	mm	970	970	970
	Depth	mm	370	370	370
Weight		kg	117	117	117
Refrigerant			R410A	R410A	R410A
Refrigerant charge		kg	4.8	5.3	5.3
Connection pipe diameter	Liquid	mm	ø9.52	ø9.52	ø9.52
	Gas	mm	ø15.88	ø15.88	ø19.05
Total pipe length		m	120	120	120
Max. Height difference		m	30	30	30
Operation range	Cooling	°C	-5 to 46	-5 to 46	-5 to 46
	Heating	°C	-20 to 21	-20 to 21	-20 to 21

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

Dimensions

Model : AJYA40LALH / AJYA45LALH / AJYA54LALH

(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



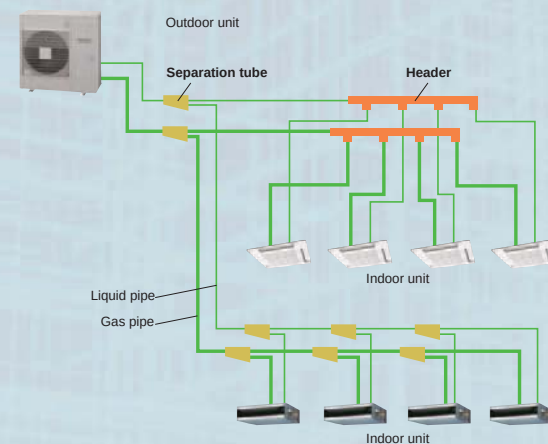
Space saving and low sound level design

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

Flexible systems for homes, shops, small-size buildings air conditioning

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

System configuration example

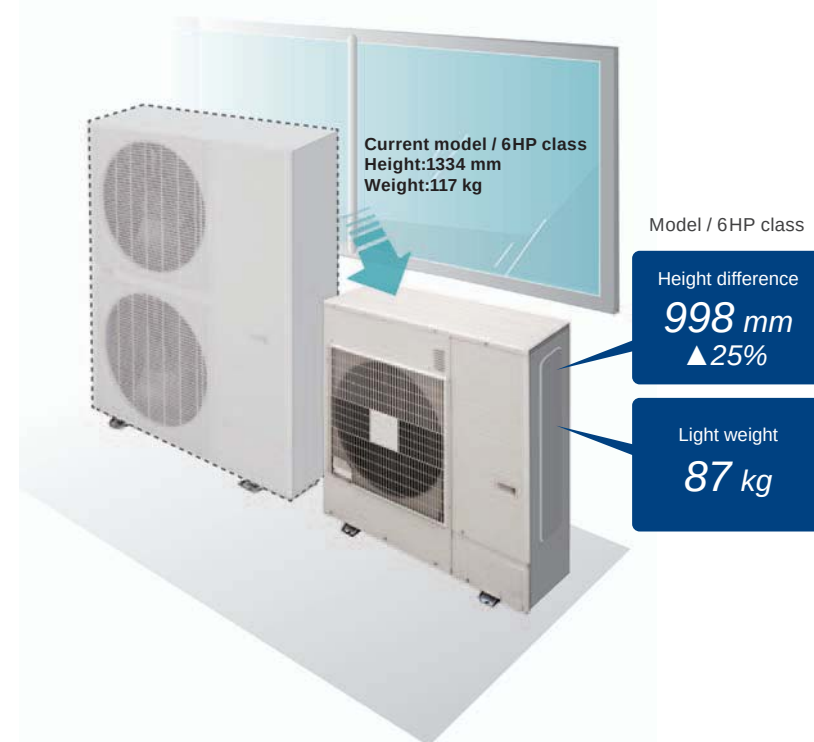


Large Homes



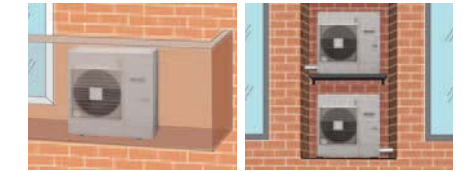
Features

It Can be Easily Carried and Installed Obscure Place



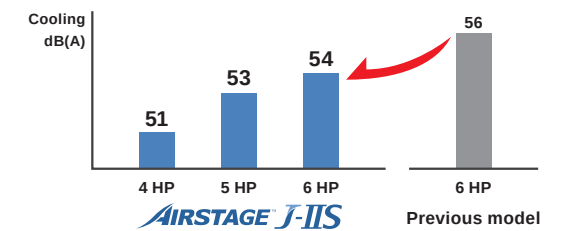
Small and light weight outdoor unit

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



Low sound level design

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



Advanced high efficiency technology



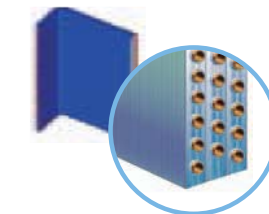
Large propeller fan

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



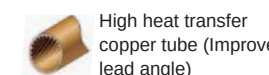
DC fan motor

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

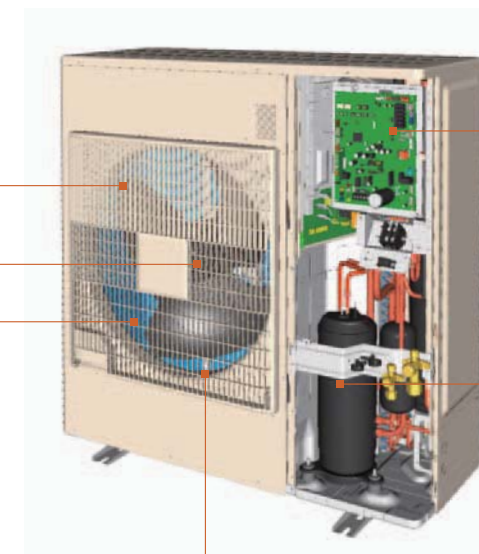


Large heat exchanger

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

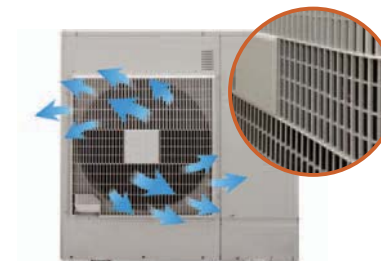


High heat transfer copper tube (Improved lead angle)



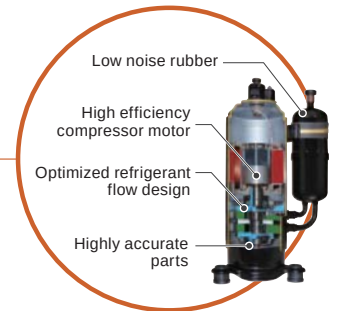
Smooth airflow grille

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



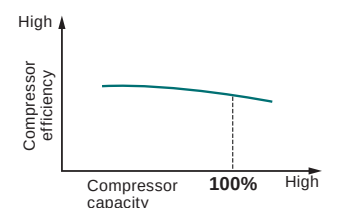
DC inverter control

Efficiency is improved by mounting of new active filter module.



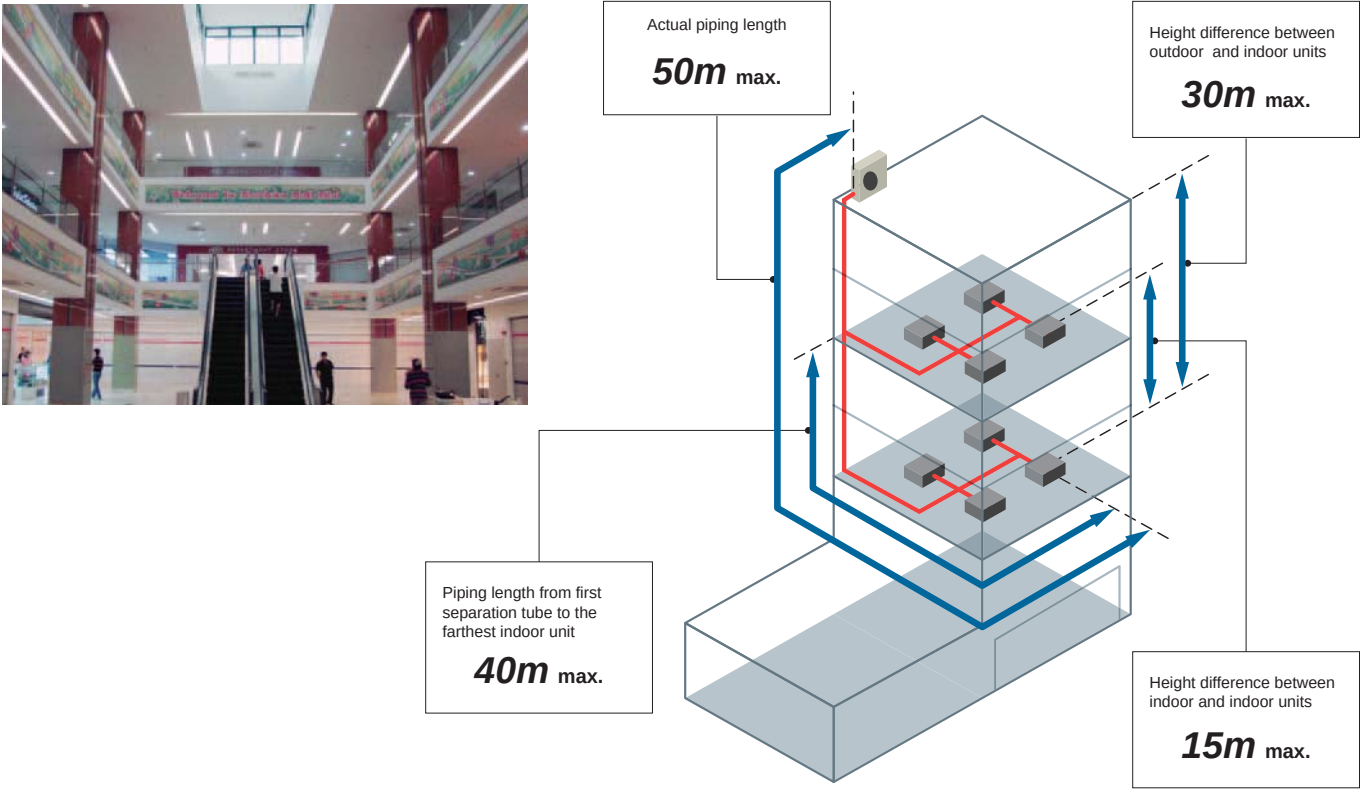
Compact and high performance DC twin rotary compressor

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



Long Piping Length

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



Specifications

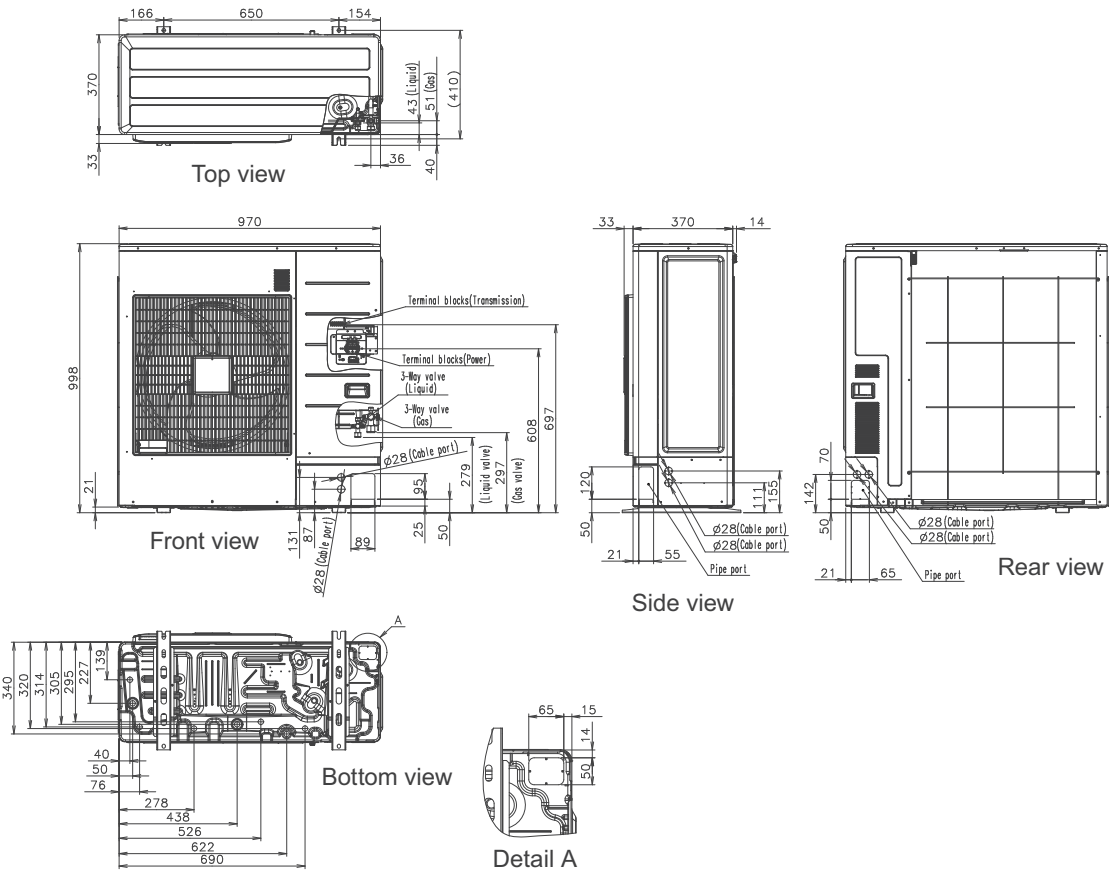
Rating capacity range		HP	4	5	6
Model name			AJY040LCLAH	AJY045LCLAH	AJY054LCLAH
Maximum connectable indoor unit			7	8	8
Power source		V/Ø/Hz	230/1/50	230/1/50	230/1/50
Capacity	Cooling	kW	12.1	14.0	15.1
	Heating	kW	13.6	16.0	16.5
Input power	Cooling	kW	3.44	4.43	5.32
	Heating	kW	3.09	3.93	4.26
EER	Cooling	W/W	3.52	3.16	2.84
	Heating	W/W	4.40	4.07	3.87
COP			4.40	4.07	3.87
Airflow rate		m³/h	4,040	4,200	4,200
Sound Pressure level	Cooling	dB	51	53	54
	Heating	dB	54	55	56
Heat exchanger fin			Blue fin	Blue fin	Blue fin
Dimensions	Height	mm	998	998	998
	Width	mm	970	970	970
	Depth	mm	370	370	370
Weight		kg	86	86	87
Refrigerant			R410A	R410A	R410A
Refrigerant charge		kg	4.0	4.0	4.0
Connection	Liquid	mm	ø9.52	ø9.52	ø9.52
	Gas	mm	ø15.88	ø15.88	ø15.88
Total pipe length		m	80	80	80
Max. Height difference		m	30	30	30
Operation Range	Cooling	°C	-5 to 46	-5 to 46	-5 to 46
	Heating	°C	-20 to 21	-20 to 21	-20 to 21

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

Dimensions

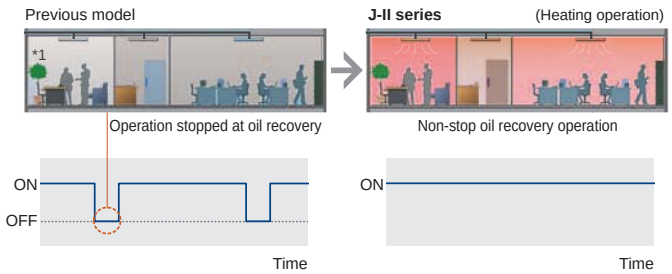
Model : AJY040LCLAH / AJY045LCLAH / AJY054LCLAH

(Unit : mm)



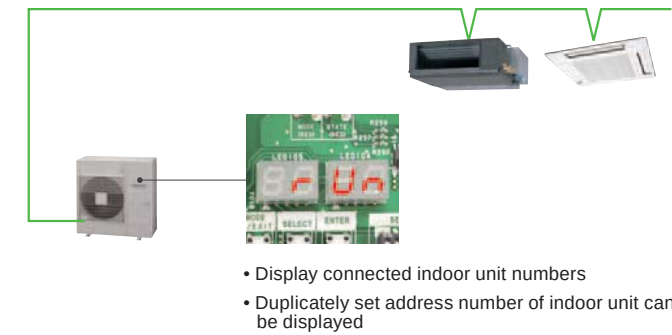
Non-stop oil recovery operation

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



Easier Installation

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



INDOOR UNITS

12 Types and 58 models available to meet the requirements of any building design.

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

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

COMPACT CASSETTE

LOW STATIC PRESSURE DUCT / CONCEALED FLOOR

SLIM DUCT / SLIM CONCEALED FLOOR

MEDIUM STATIC PRESSURE DUCT

HIGH STATIC PRESSURE DUCT

LARGE AIRFLOW DUCT

FLOOR / CEILING

WALL MOUNTED (EEV INTERNAL / EXTERNAL)

Compact Cassette

Models

- AUXB04GALH
- AUXB07GALH
- AUXB09GALH
- AUXB12GALH
- AUXB14GALH
- AUXB18GALH
- AUXB24GALH

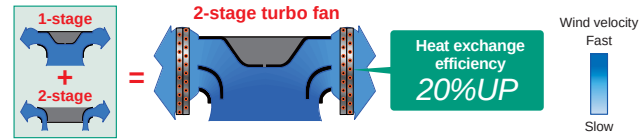
Compact size panel design
that fits standard ceiling panel (600x600mm)



2-stage turbo fan

High efficiency design by 2 stage structure

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



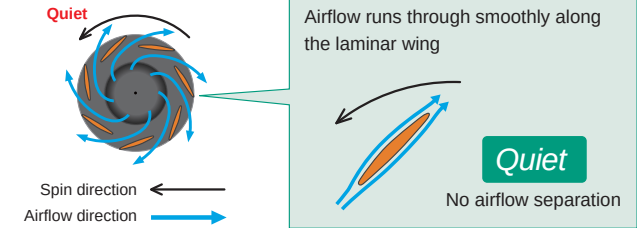
Previous turbo fan
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.

Quiet quality

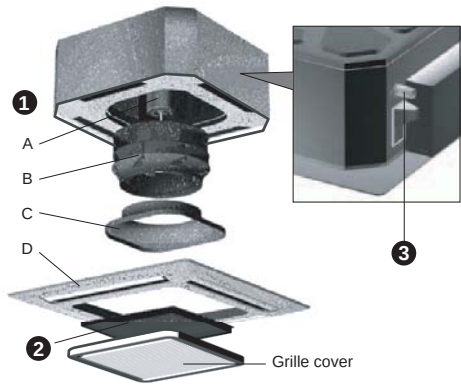
Optimization of wing form (laminar wing type) and wing number (7 blades each)

Designed by CFD-analysis (fluid) simulations

Adoption of laminar wing



Improvement of the airflow distribution



1 Maintenance of fan motor and fan

Maintenance of the fan motor and fan can be done easily after taking off the panel as the bell mouth of the fan can be removed easily.

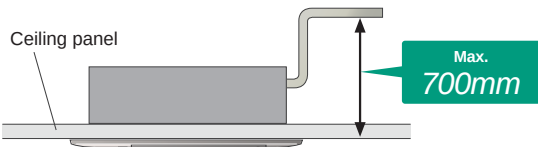
A : Fan motor B : 2-stage turbo fan
C : Bell-mouth D : Panel

2 Air filter : standard equipment

3 Adaptation of transparent drainage parts

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

High lift drain pump



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
04	2.7	—
07	2.7	—
09	2.7	—
12	2.7	3.0
14	2.7	3.0
18	2.7	3.0
24	2.7	3.0

Compact design

Worlds first 24,000Btu model in the compact cassette category
(Easy installation by taking off ceiling panel of 600 x 600 size)



Optional parts

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

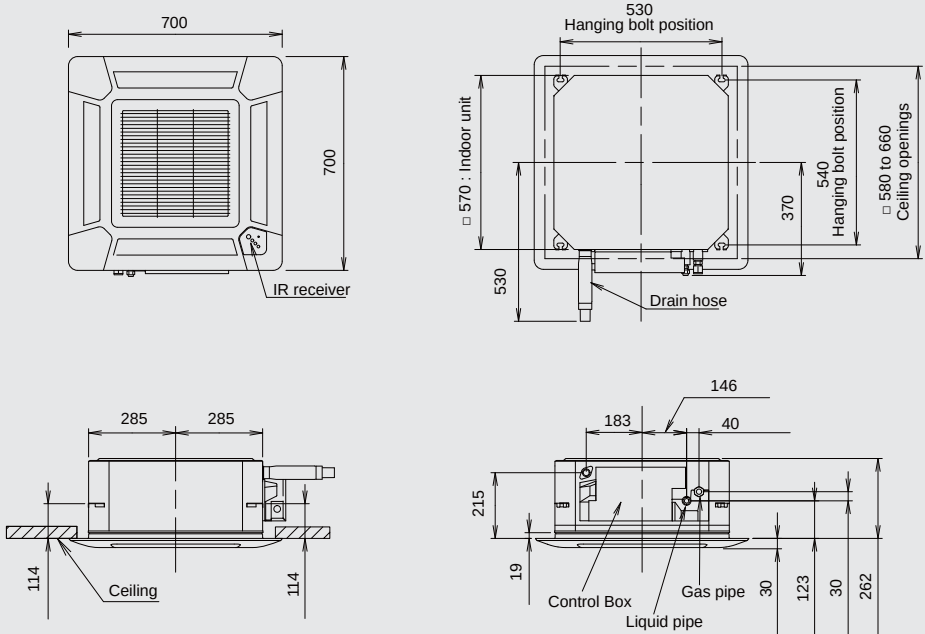
Specifications

Model name			AUXB04GALH	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH
Power source			230V ~, 50Hz						
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		1.3	2.8	3.2	4.1	5.0	6.3	8.0
Input power		W	23	25	25	29	35	36	84
Airflow rate	High	m³/h	530	540	550	600	680	710	1,030
	Med		420/450*1	450	450	530	590	580	830
	Low		300/350*1	350	350	390	390	400	450
Sound pressure level	High	dB(A)	34	34	35	37	38	41	50
	Med		28/30*1	30	30	34	34	35	44
	Low		21/25*1	25	25	27	27	27	30
Dimensions (H x W x D)		mm	245 x 570 x 570						
Weight		kg	15						17
Connection pipe diameter	Liquid (Flare)	mm	ø6.35						ø9.52
	Gas (Flare)		ø12.70						ø15.88
	Drain		ø25 (I.D.) ; ø32 (O.D.)						
Cassette Grille	Model name		UTG-UFYC-W						
	Dimensions (H x W x D)		50 x 700 x 700						
	Weight		2.6						

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

Dimensions (Unit : mm)

Models: AUXB04 / AUXB07 / AUXB09 / AUXB12 / AUXB14 / AUXB18 / AUXB24



Cassette

Models (Slim type)

AUXD18GALH
AUXD24GALH



Models (Large type)

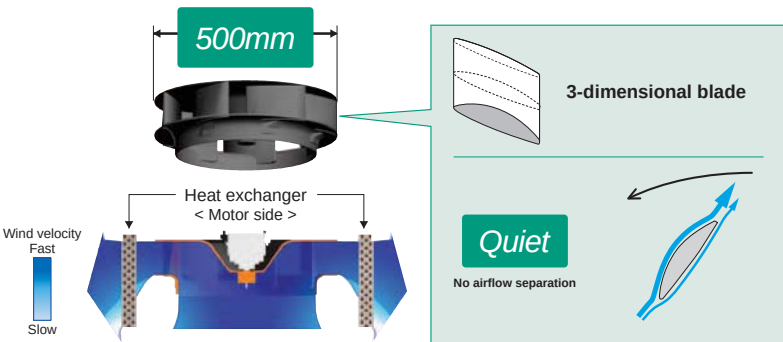
AUXA18GALH
AUXA24GALH
AUXA30GALH
AUXA34GALH
AUXA36GALH
AUXA45GALH
AUXA54GALH



Powerful, wide airflow and quiet operation

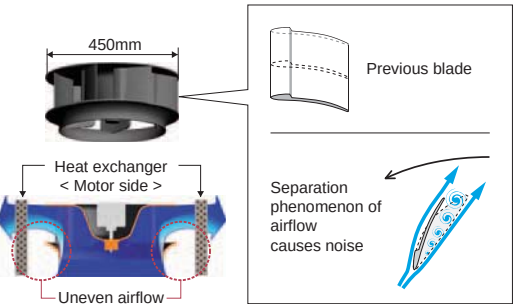
High efficiency turbo fan with 3-dimensional blade

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



Previous turbo fan

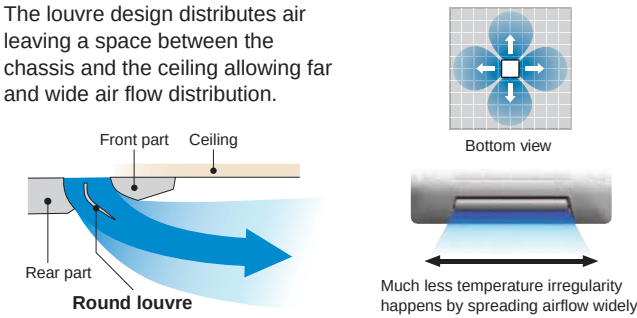
Air passing through the heat exchanger was uneven and the air would only flow close to the ceiling.



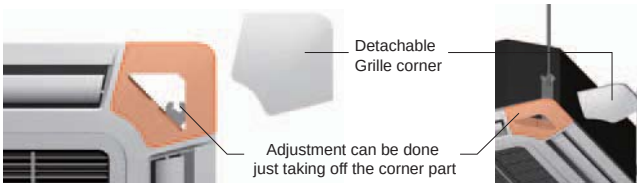
← : Spin direction → : Airflow direction ••••• : Turbulent flow noise

Improvement of the airflow distribution

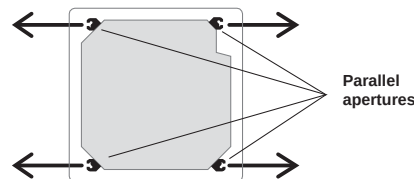
The louvre design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.



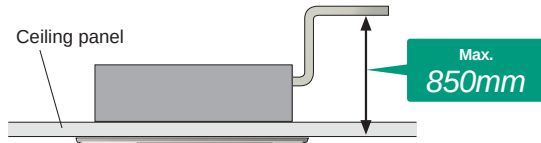
Adjustment of hanger position is possible after installation



One way aperture installation



High lift drain pump



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

Optional parts

IR Receiver Unit :	UTY-LRHYB1
Air Outlet Shutter Plate :	UTR-YDZC
Panel Spacer :	UTG-BGYA-W
Insulation Kit for High Humidity :	UTZ-KXGA / UTZ-KXGB
Wide Panel :	UTG-AGYA-W
Fresh Air Intake Kit :	UTZ-VXGA

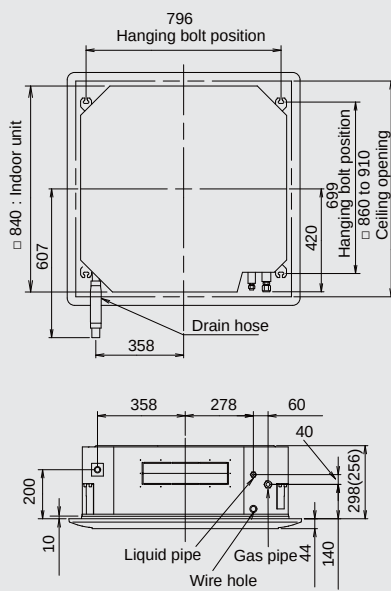
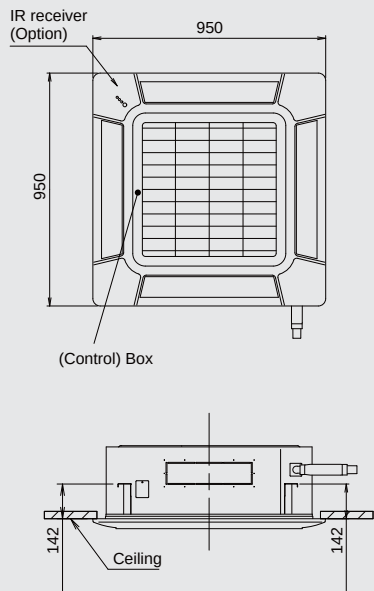
Specifications

Model name			AUXD18GALH	AUXD24GALH	AUXA18GALH	AUXA24GALH	AUXA30GALH	AUXA34GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH	
Power source			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	1,150	1,280	1,420	1,420	1,600	1,750	1,800	1,900	2,000	
	Med		940	1,040	1,230	1,230	1,300	1,300	1,300	1,370	1,370	
	Low		870	870	1,100/1,000*1	1,100/1,000*1	1,100	1,100	1,100	1,100	1,100	
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 x W x D)		mm	246 x 840 x 840		288 x 840 x 840							
Weight		kg	22		27							
Connection pipe diameter	Liquid (Flare)	mm	ø9.52									
	Gas (Flare)		ø15.88					ø19.05				
	Drain		ø25 (I.D.) ; ø32 (O.D.)									
Cassette Grille	Model name		UTG-UGYA-W									
	Dimensions (H x W x D)		mm	50 x 950 x 950								
	Weight		kg	5.5								

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

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

Models: AUXD18 / AUXD24 (Slim type)
AUXA18 / AUXA24 / AUXA30 / AUXA34 / AUXA36 / AUXA45 / AUXA54 (Large type)



Low Static Pressure Duct / Concealed Floor

Models
ARXB07GALH
ARXB09GALH
ARXB12GALH
ARXB14GALH
ARXB18GALH

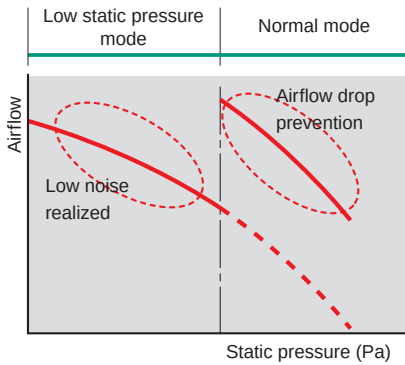
Small and compact indoor unit suitable for many applications



Low noise level

A low noise level has been achieved for each capacity

Model		7	9	12	14	18
Static pressure range	Pa	0 to 50				
Noise level (Low speed)	dB(A)	24	27	25	30	30



Specifications

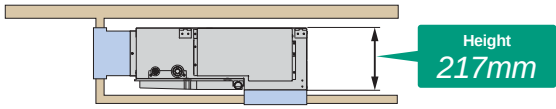
Model name			ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH	ARXB18GALH
Power source			230V ~, 50Hz				
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating	kW	2.8	3.2	4.0	5.0	6.3
Input power		W	46	55	63	90	96
Airflow rate	High	m³/h	370	440	590	800	890
	Med		310	370	500	750	810
	Low		280	340	450	700	730
Static pressure range		Pa	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50
Standard static pressure		Pa	25	25	25	25	25
Sound pressure level	High	dB(A)	29	31	30	33	36
	Med		26	29	28	32	34
	Low		24	27	25	30	30
Dimensions (H x W x D)		mm	217 x 663 x 595			217 x 953 x 595	
Weight		kg	15			22	
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø9.52
	Gas (Flare)		ø12.70				ø15.88
	Drain		ø25 (I.D.) ; ø32 (O.D.)				

Note : Specifications are based on the following conditions.

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

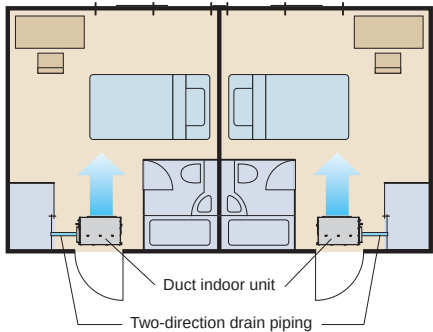
Compact design

Ultra-slim duct air conditioner for easy installation



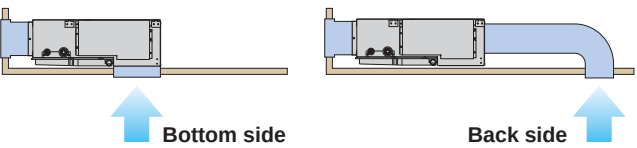
Slim size (217mm) allows installation even where the space behind the ceiling is narrow.

Two-direction drain piping



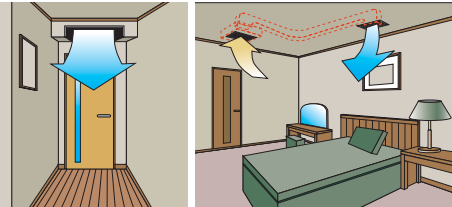
Air-intake

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

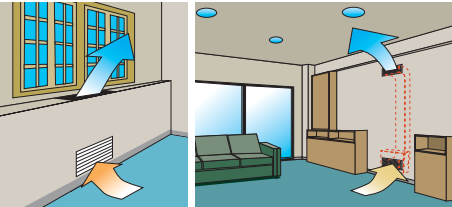


Flexible installation

Ceiling concealed

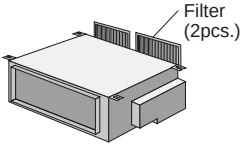


Floor concealed

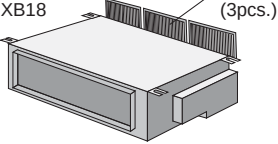


Filter (Accessory)

ARXB07 / ARXB09



ARXB12 / ARXB14 / ARXB18



Optional parts

Remote Sensor Unit : UTY-XSZX

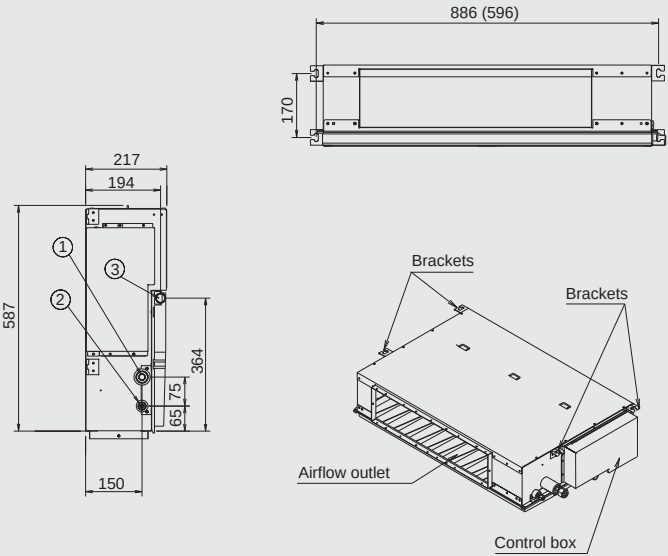
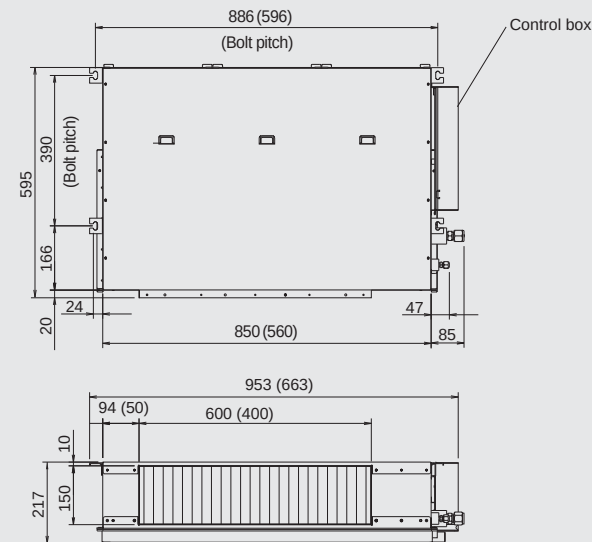
IR Receiver Unit : UTB-YWC

Drain Pump Unit : UTZ-PX1BBA

Dimensions (Unit : mm) () : AR7 / AR9

Models: ARXB07 / ARXB09 / ARXB12 / ARXB14 / ARXB18

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



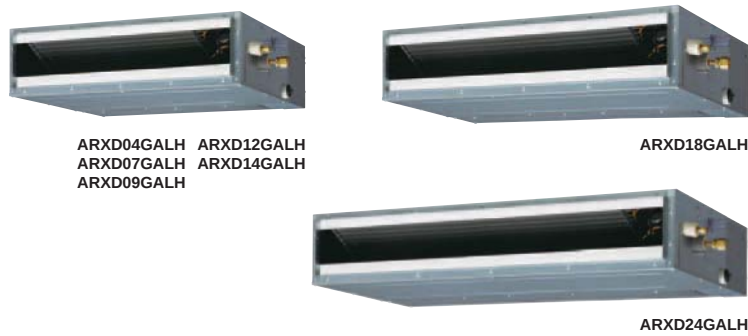
- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection

Slim Duct / Slim Concealed Floor

Models (With drain pump)

- ARXD04GALH
- ARXD07GALH
- ARXD09GALH
- ARXD12GALH
- ARXD14GALH
- ARXD18GALH
- ARXD24GALH

Slim design and wide range of static pressure for flexible installation.

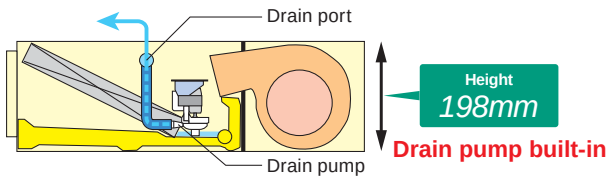


Slim Concealed Floor



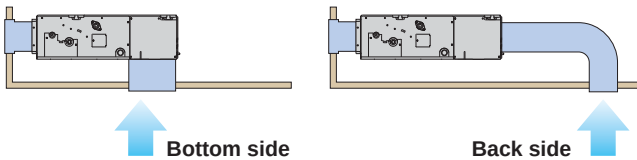
Slim design

This model is slim design, it can install at the place where a ceiling is narrow.

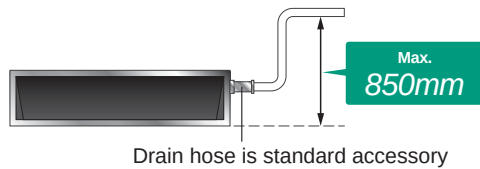


Air-intake

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



High lift drain pump



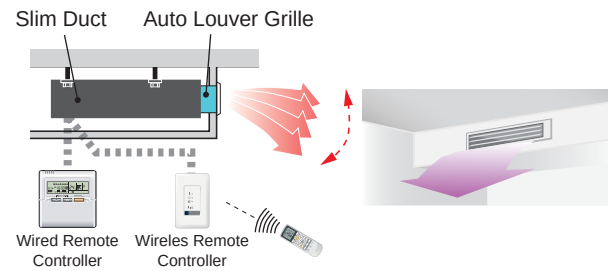
Selectable with a wide range of static pressure

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



Auto Louver Grille Kit (Option)

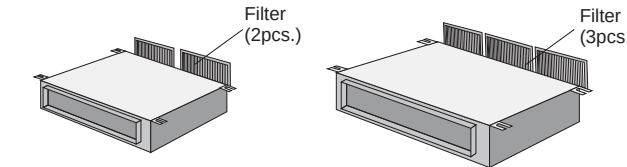
Simple flat Auto Louver will provide comfort airflow and harmonize with luxury interior.



Filter (Accessory)

ARXD04 / 07 / 09 / 12 / 14 / 18

ARXD24



Optional parts

- Remote Sensor Unit : UTY-XSZX
- IR Receiver Unit : UTB-YWC
- Auto Louver Grille Kit : UTD-GXSA-W (for ARXD04/07/09/12/14GALH)
- UTD-GXSB-W (for ARXD18GALH)
- UTD-GXSC-W (for ARXD24GALH)

Specifications

Model name			ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH
Power source			230V ~, 50Hz						
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		1.3	2.8	3.2	4.0	5.0	6.3	8.0
Input power		W	38	44	50	54	92	83	122
Airflow rate	High	m³/h	510	550	600	600	800	940	1,330
	Med		400/470*1	490	550	510	710	840	1,240
	Low		320/440*1	440	480	450	610	750	1,100
Static pressure range		Pa	0 to 90	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	25
Sound pressure level	High	dB(A)	26	28	29	30	34	34	35
	Med		21/25*1	25	26	27	32	32	32
	Low		20/22*1	22	24	24	28	28	29
Dimensions (H x W x D)		mm	198 x 700 x 620					198 x 900 x 620	198 x 1,100 x 620
Weight		kg	17			18		22	26
Connection pipe diameter	Liquid (Flare)	mm	ø6.35					ø9.52	
	Gas (Flare)		ø12.70					ø15.88	
	Drain		ø25 (I.D.) ; ø32 (O.D.)						

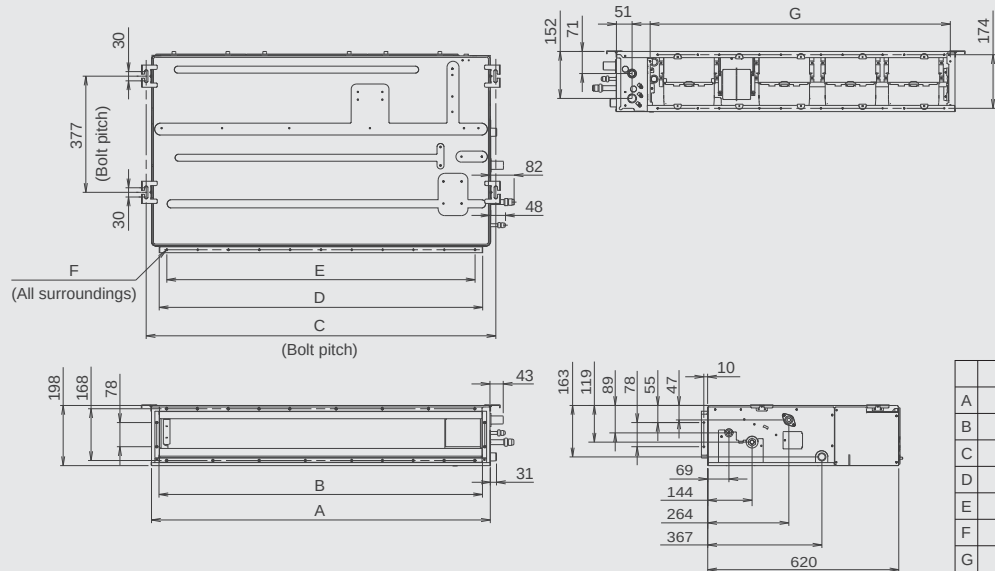
Note : Specifications are based on the following conditions.

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

Dimensions (Unit : mm)

Models: ARXD04 / ARXD07 / ARXD09 / ARXD12 / ARXD14 / ARXD18 / ARXD24

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



	ARXD04-14	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	18xø5	22xø5	26xø5
G	574	774	974

Medium Static Pressure Duct

Models

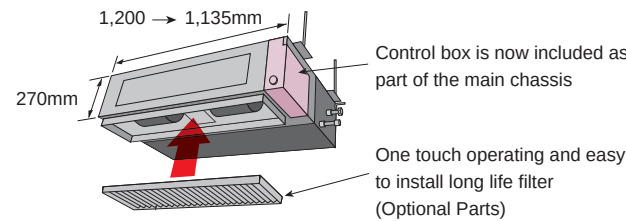
- ARXA24GBLH
- ARXA30GBLH
- ARXA36GBLH
- ARXA45GBLH

Low energy consumption by DC fan motor.
Selectable with a wide range of static pressure.



Slim & 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.



Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.



24 model



30 / 36 / 45 model

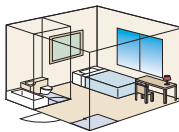
Selectable with a wide range of static pressure

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

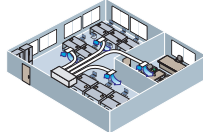
Static pressure range
0 to 150 Pa

Can be installed for various location

It can be installed in such locations as high-rise condominiums by low static pressure design.

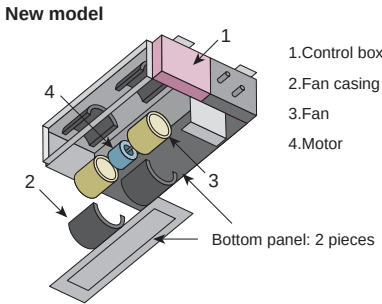


It can also be installed in wide spade when high static pressure is required, such as for offices.



Easy maintenance

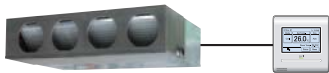
See below for the case of rear suction type



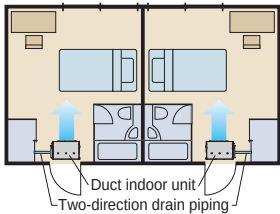
The maintenance of the motor and fan can be easily carried out by removing the rear panel and the lower part of the casing while leaving the main chassis installed.

Easy setting by using remote controller

The change of static pressure range is possible by remote controller

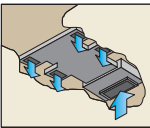


Two-direction drain piping

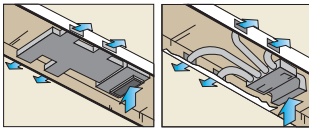


Installation styles

Embedded in Ceiling



Hanging from Ceiling



Optional parts

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

Specifications

Model name			ARXA24GBLH	ARXA30GBLH	ARXA36GBLH	ARXA45GBLH
Power source			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	1,280	1,410	1,840	1,970
	Med		990	1,280	1,600	1,860
	Low		840	1,150	1,470	1,640
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 x W x D)		mm	270 x 1,135 x 700			
Weight		kg	36	40		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52			
	Gas (Flare)		ø15.88		ø19.05	
	Drain		ø25 (I.D.) ; ø32 (O.D.)			

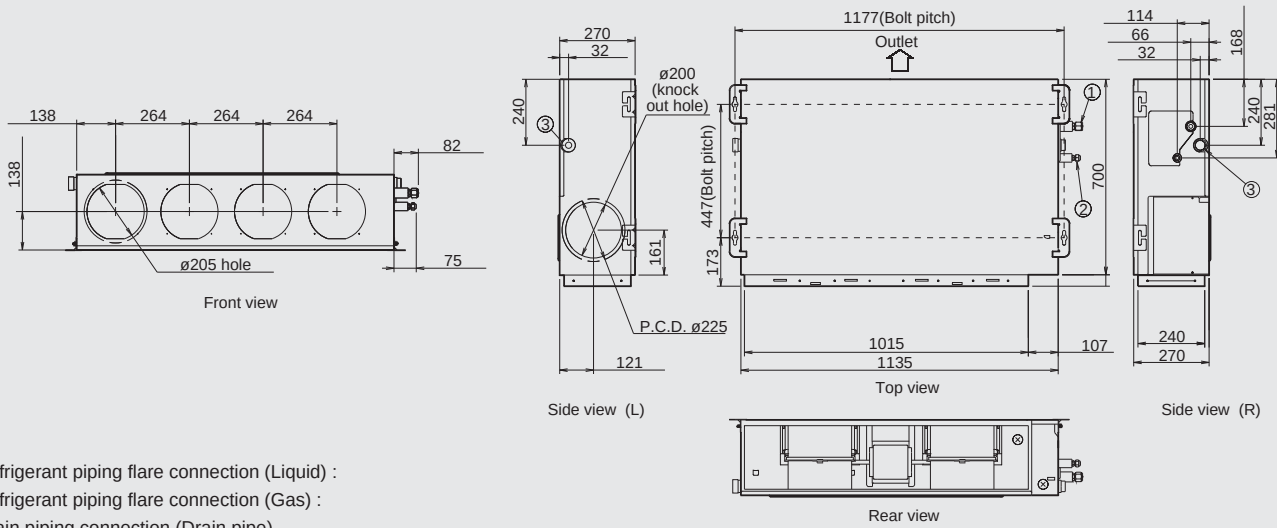
Note : Specifications are based on the following conditions.

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

Dimensions (Unit : mm)

Models: ARXA24 / ARXA30 / ARXA36 / ARXA45

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



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

High Static Pressure Duct

Models
ARXC36GBTH
ARXC45GATH
ARXC60GATH
ARXC72GBTH
ARXC90GBTH

These indoor units allow for high airflow quantities



ARXC36GBTH
ARXC45GATH
ARXC60GATH

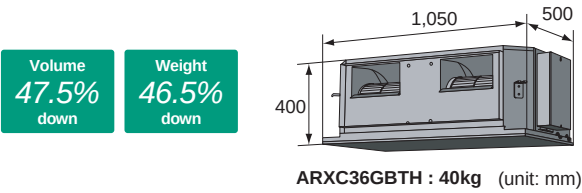


ARXC72GBTH
ARXC90GBTH

Easy installation (Compact size & Lightweight)

Models : ARXC36

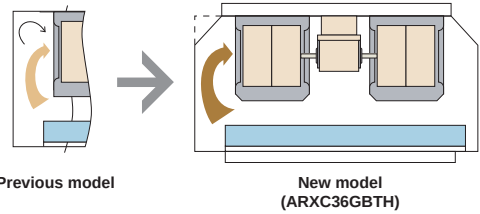
A compact size and lightweight indoor unit has been developed by reducing the basic chassis and the overall material weight.



Low noise

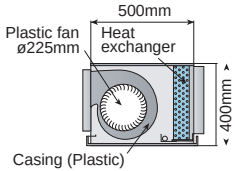
Models : ARXC36 / ARXC45 / ARXC60

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



ARXC36GBTH : Plastic fan [42dB(A)]

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



Static pressure selection

Models : ARXC36 / ARXC72 / ARXC90

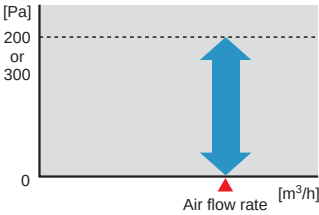
Max.
200Pa
(36 class)



Max.
300Pa
(72 / 90 class)



By using DC fan motor, it is possible to change static pressure range from 0 to 200Pa (ARXC36) / 300Pa (ARXC72 / ARXC90).



Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.



ARXC36



ARXC72 / 90

Optional parts

Long-Life Filter : UTD-LF60KA (For ARXC36 / 45 / 60)

IR Receiver Unit : UTB-YWC

Remote Sensor Unit : UTY-XSZX

Specifications

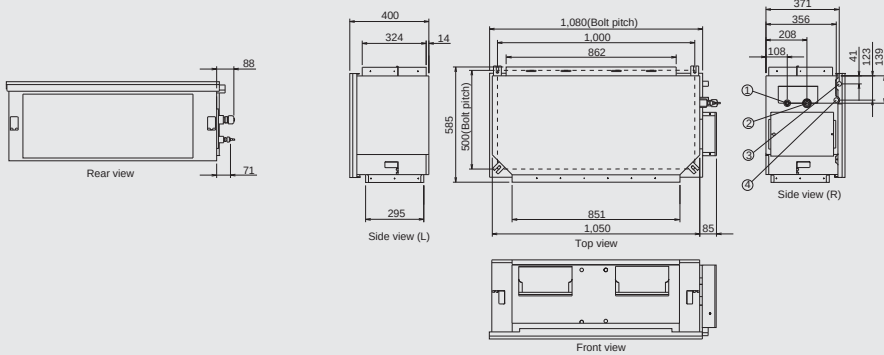
Model name			ARXC36GBTH	ARXC45GATH	ARXC60GATH*	ARXC72GBTH*	ARXC90GBTH*
Power source			230V ~, 50Hz				
Capacity	Cooling	kW	11.2	12.5	18.0	22.4	25.0
	Heating		12.5	14.0	20.0	25.0	28.0
Input power		W	207	715	730	681	819
Airflow rate	High	m³/h	1,990	3,500	3,500	3,900	4,300
	Med		1,680	3,000	3,000	3,300	4,000
	Low		1,330	2,460	2,460	3,000	3,500
Static pressure range		Pa	0 to 200	100 to 250	100 to 250	0 to 300	0 to 300
Standard static pressure			100	100	100	150	150
Sound pressure level	High	dB(A)	42	49	49	47	48
	Med		36	45	45	43	46
	Low		32	42	42	40	44
Dimensions (H x W x D)		mm	400 x 1,050 x 500			450 x 1,587 x 700	
Weight		kg	40	46		84	84
Connection pipe diameter	Liquid	mm	ø9.52 (Flare)			ø12.70 (Brazing)	
	Gas		ø19.05 (Flare)			ø22.22 (Brazing)	
	Drain		VP25 [ø25 (I.D.) ; ø32 (O.D.)]				

Note : Specifications are based on the following conditions.
*: ARXC60/72/90G cannot be connected to J-II series.

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

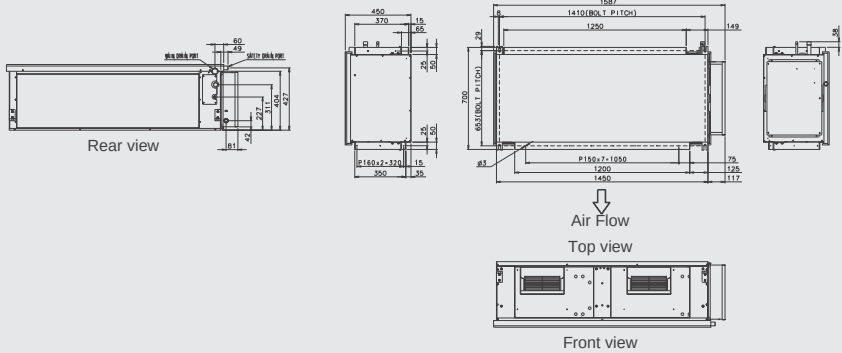
Dimensions (Unit : mm)

Models: ARXC36 / ARXC45 / ARXC60



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

Models: ARXC72 / ARXC90



Large Airflow Duct

Models

- ARXN18GATH
- ARXN24GATH
- ARXN30GATH
- ARXN34GATH
- ARXN36GATH
- ARXN45GATH



These indoor units allow for high airflow quantities

Large airflow volume

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



Selectable with a wide range of static pressure

static pressure range

50 to 250Pa

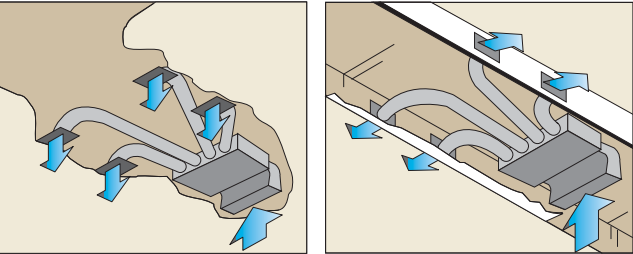
(30 / 34class)

static pressure range

50 to 300Pa

(36 / 45class)

Installation styles



Optional parts

Remote Sensor Unit : UTY-XSZX

Specifications

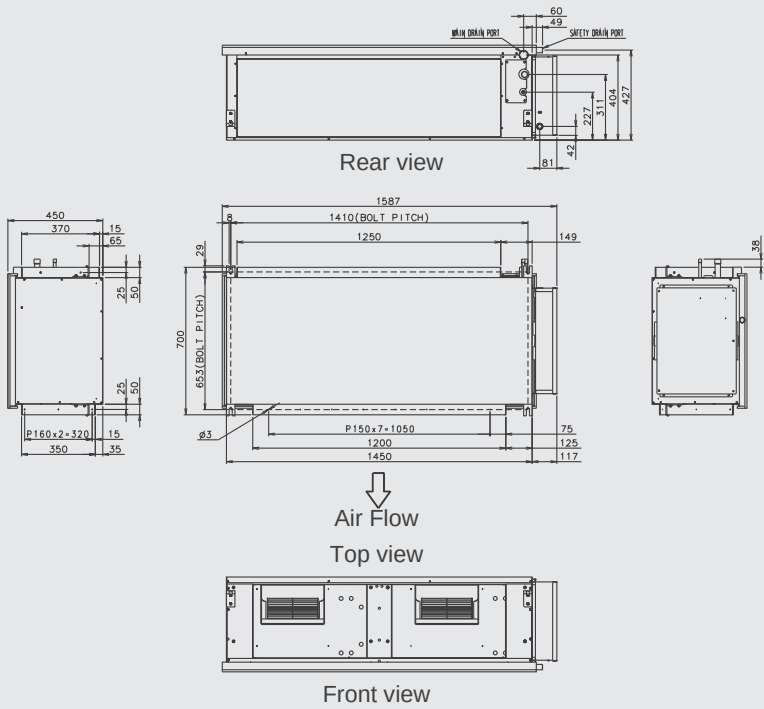
Model name			ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH
Power source			230V ~, 50Hz					
Capacity	Cooling	kW	5.6	7.1	9.0	10.0	11.2	12.5
	Heating		6.3	8.0	10.0	11.2	12.5	14.0
Input power		W	154	205	306	432	572	572
Airflow rate	High	m³/h	2,280	2,640	3,200	3,720	4,120	4,120
	Med		—	—	—	—	—	—
	Low		—	—	—	—	—	—
Static pressure range		Pa	50 to 100	50 to 150	50 to 250	50 to 250	50 to 300	50 to 300
Standard static pressure			50	50	50	50	60	60
Sound pressure level	High	dB(A)	35	37	40	43	45	45
	Med		—	—	—	—	—	—
	Low		—	—	—	—	—	—
Dimensions (H x W x D)		mm	450 x 1,587 x 700					
Weight		kg	84					
Connection pipe diameter	Liquid	mm	ø9.52 (Flare)					
	Gas		ø15.88 (Flare)				ø19.05 (Flare)	
	Drain		VP25[ø25(I.D.); ø32(O.U.)]					

Note : Specifications are based on the following conditions.
Large Airflow Duct can be connected to V-III series only.

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

Dimensions (Unit : mm)

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



Floor / Ceiling

Models

- ABYA12GATH
- ABYA14GATH
- ABYA18GATH
- ABYA24GATH

The slim and lightweight design allow the unit to be suspended from the ceiling or installed on the floor. This type suits many room designs



Flexible installation

Example for floor installation

Floor console



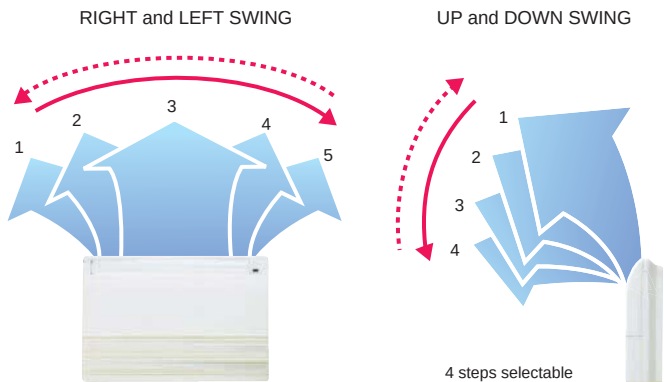
Example for ceiling installation

Under ceiling



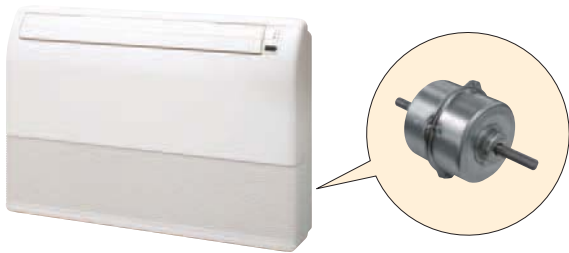
Double auto swing

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



High power DC fan motor

- High power
- Wide rotation range
- High efficiency



Super vane

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

Auto-closing louvre

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

Compact design

Symmetrical, slim and compact design.



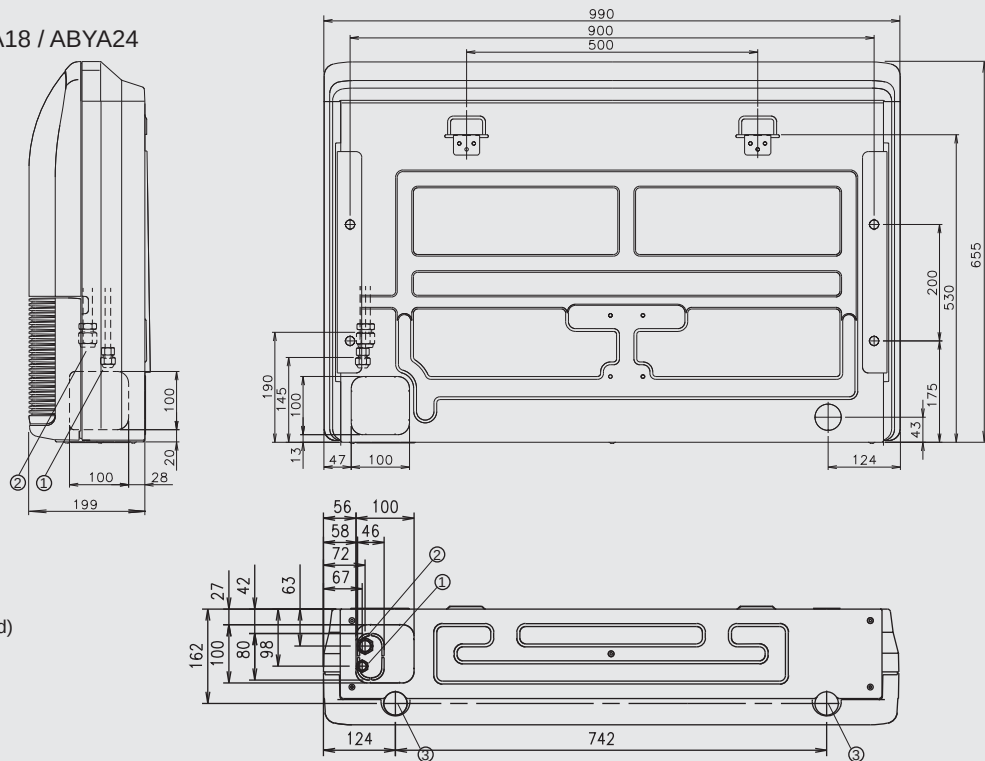
Specifications

Model name			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH
Power source			230V ~, 50Hz			
Capacity	Cooling	kW	3.6	4.5	5.6	7.1
	Heating		4.0	5.0	6.3	8.0
Input power		W	30	42	74	99
Airflow rate	High	m³/h	660	780	1,000	1,000
	Med		570	640	720	820
	Low		490	550	580	680
Sound pressure level	High	dB(A)	36	40	46	47
	Med		32	36	39	42
	Low		28	34	35	37
Dimensions (H x W x D)		mm	199 x 990 x 655			
Weight		kg	25	26	26	27
Connection pipe diameter	Liquid (Flare)	mm	ø6.35		ø9.52	
	Gas (Flare)		ø12.70		ø15.88	
	Drain		ø25 (I.D.) ; ø32 (O.D.)			

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

Dimensions (Unit : mm)

Models: ABYA12 / ABYA14 / ABYA18 / ABYA24



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

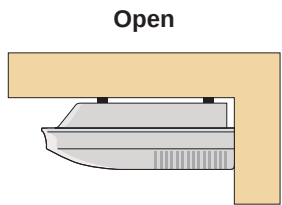
Ceiling

Models
ABYA30GATH
ABYA36GATH
ABYA45GATH
ABYA54GATH

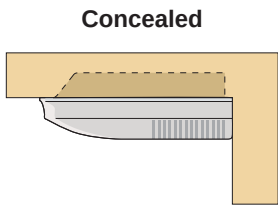
Easily concealed in any installation



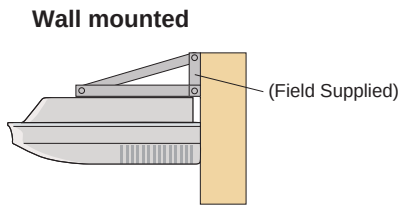
Installation



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.

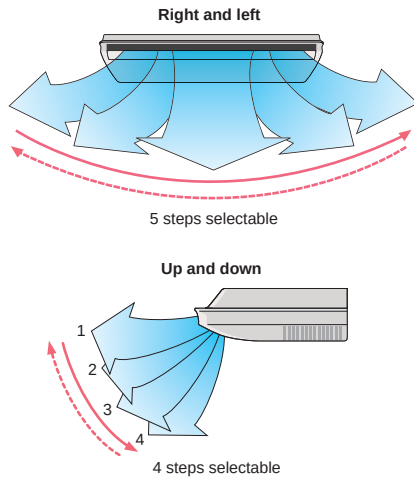
Specifications

Model name			ABYA30GATH	ABYA36GATH	ABYA45GATH	ABYA54GATH
Power source			230V ~, 50Hz			
Capacity	Cooling	kW	9.0	11.2	12.5	14.0
	Heating		10.0	12.5	14.0	16.0
Input power		W	66	85	131	180
Airflow rate	High	m³/h	1,630	1,690	2,010	2,270
	Med		1,370	1,400	1,600	1,780
	Low		1,140	1,170	1,230	1,280
Sound pressure level	High	dB(A)	42	45	48	51
	Med		38	38	42	45
	Low		33	34	35	36
Dimensions (H x W x D)		mm	240 x 1,660 x 700			
Weight		kg	46	48		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52	ø9.52		
	Gas (Flare)		ø15.88	ø19.05		
	Drain		ø25 (I.D.) ; ø32 (O.D.)			

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

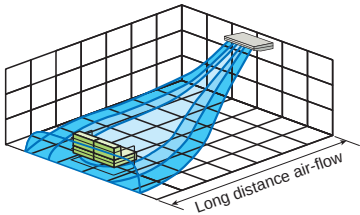
Double auto swing and wide airflow

Auto airflow direction and auto swing

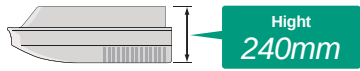


Long airflow

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

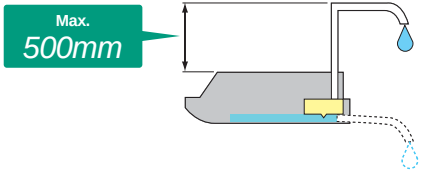


Slim & Compact design

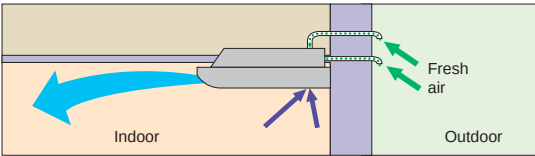


High lift drain pump

Optional drain pump unit allows flexible installation design.

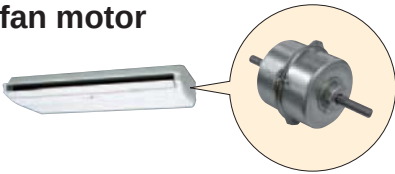


Fresh air intake



High power DC fan motor

- High power
- Wide rotation range
- High efficiency

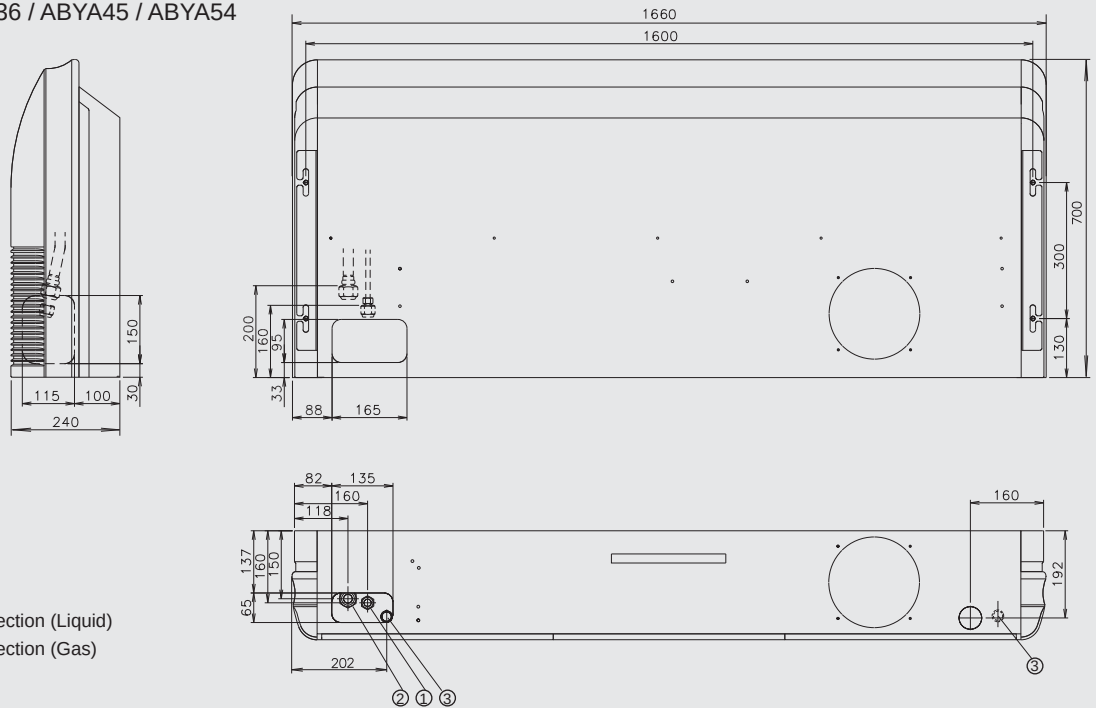


Optional parts

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

Dimensions (Unit : mm)

Models: ABYA30 / ABYA36 / ABYA45 / ABYA54



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

Wall Mounted

Models (EEV internal model)

ASYA04GACH
ASYA07GACH
ASYA09GACH
ASYA12GACH
ASYA14GACH

Models (EEV external model)

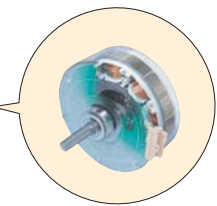
ASYE04GACH
ASYE07GACH
ASYE09GACH
ASYE12GACH
ASYE14GACH



Compact and Stylish design indoor

Low sound level design

Low sound mode of 19dB (A) is realized by DC fan motor mounting and PAM inverter control.



19dB(A)*
At low mode
heating operation
(ASYE04GACH only)

* This sound level is the same level as the rustling of leaves.

Compact size

Powerful output even compact design

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

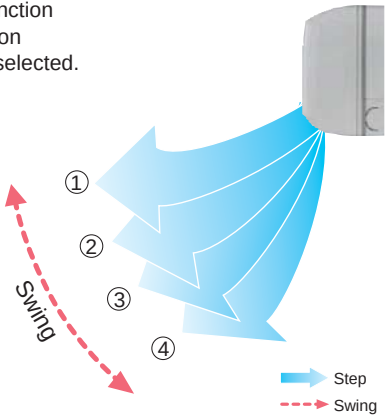
Width
790mm



790mm

Auto swing louvre

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



Easy maintenance

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



Clean filters

High quality air conditioning by incorporation of high performance filter.



Ion Deodorization Filter

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



Apple-catechin Filter

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

Specifications

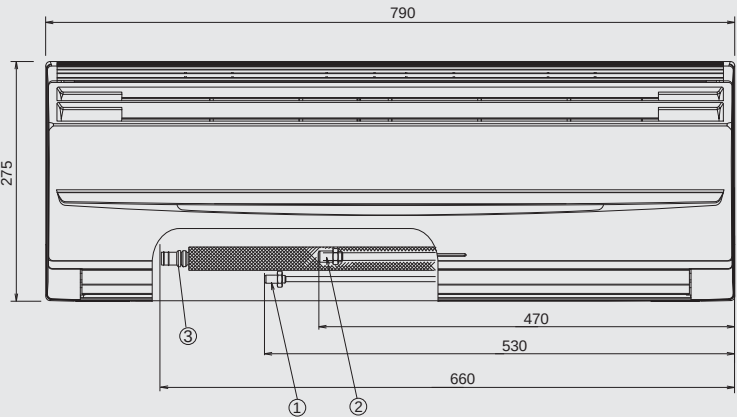
Model name			ASYA04GACH	ASYA07GACH	ASYA09GACH	ASYA12GACH	ASYA14GACH	ASYE04GACH	ASYE07GACH	ASYE09GACH	ASYE12GACH	ASYE14GACH
Power source			230V ~, 50Hz						230V ~, 50Hz			
Capacity	Cooling	kW	1.1	2.2	2.8	3.6	4.5	1.1	2.2	2.8	3.6	4.5
	Heating		1.3	2.8	3.2	4.1	5.0	1.3	2.8	3.2	4.1	5.0
Input power		W	13	17	18	22	34	12	15	16	21	34
Airflow rate	High	m³/h	450	490	500	560	670	450	490	500	560	680
	Med		370/440*1	450	450	480	490	370/440*1	450	450	480	490
	Low		320/420*1	370/420*1	370/420*1	420	420	300/420*1	370/420*1	370/420*1	420	420
Sound pressure level	High	dB(A)	33	35	36	39	44	32	34	35	38	43
	Med		27/32*1	33	33	35	37	26/31*1	32	32	34	35
	Low		22/31*1	27/31*1	27/31*1	31	32	19/30*1	26/30*1	26/30*1	30	30
Dimensions (H x W x D)		mm	275 x 790 x 215						275 x 790 x 215			
Weight		kg	9						9			
Connection pipe diameter	Liquid (Flare)	mm	ø6.35						ø6.35			
	Gas (Flare)		ø12.70						ø12.70			
	Drain		ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)						ø13.8(I.D.) ; ø15.8-ø16.7(O.D.)			
EV Kit (option)			—						UTR-EV09XB		UTR-EV14XB	

Note : Specifications are based on the following conditions.

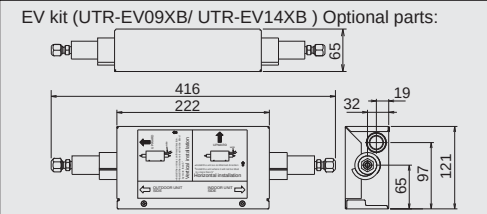
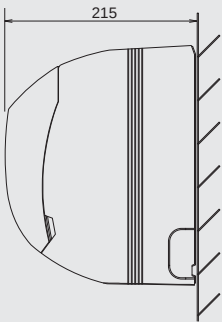
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.
Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
Voltage : 230 [V].
*1 : This value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

Dimensions (Unit : mm)

Models: ASYA04 / ASYA07 / ASYA09 / ASYA12 / ASYA14
ASYE04 / ASYE07 / ASYE09 / ASYE12 / ASYE14



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



Wall Mounted

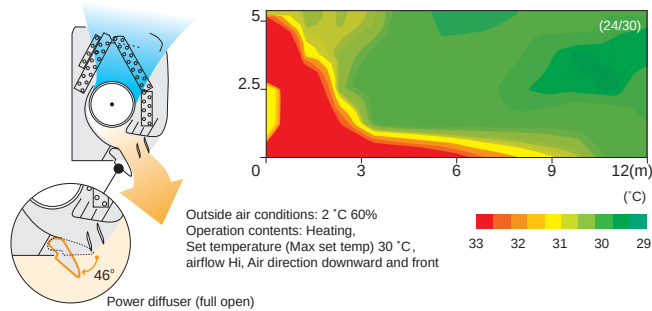
Models
ASYA18GACH
ASYA24GACH
ASYA30GACH

Simple & Elegant Appearance Design

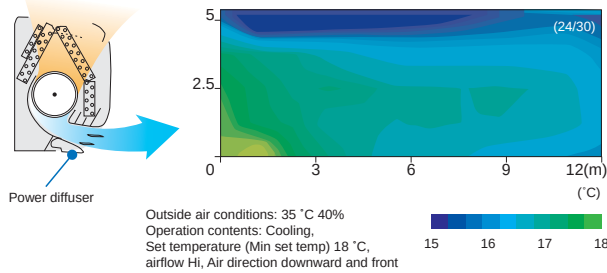


More comfort airflow by adopting power diffuser

“Vertical airflow” provides powerful floor level heating

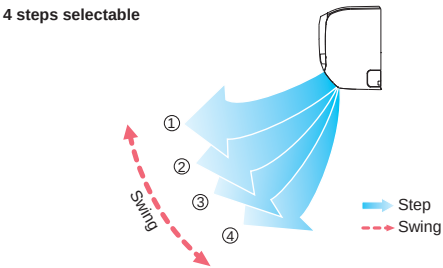
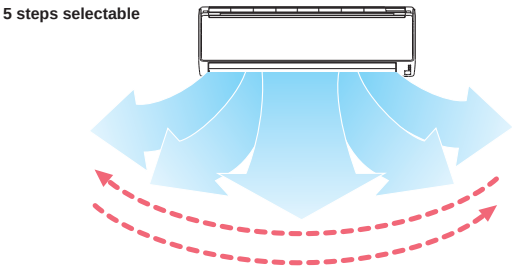


“Horizontal airflow” does not blow cool air directly at the occupants in the room



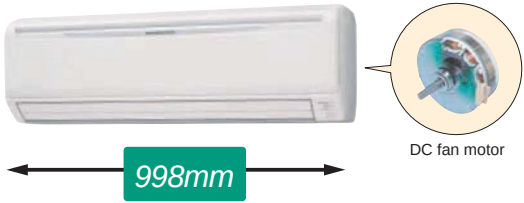
Double auto swing

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

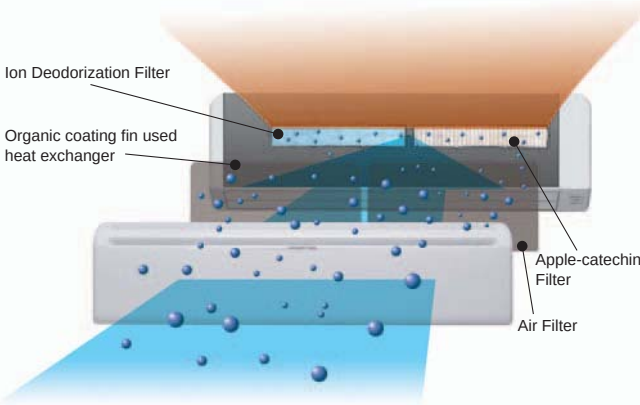


Compact & Slim design

By using DC fan motor, compact design is realized.



Air conditioner filter features



High quality air conditioning by incorporation of high performance filter.



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



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

Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

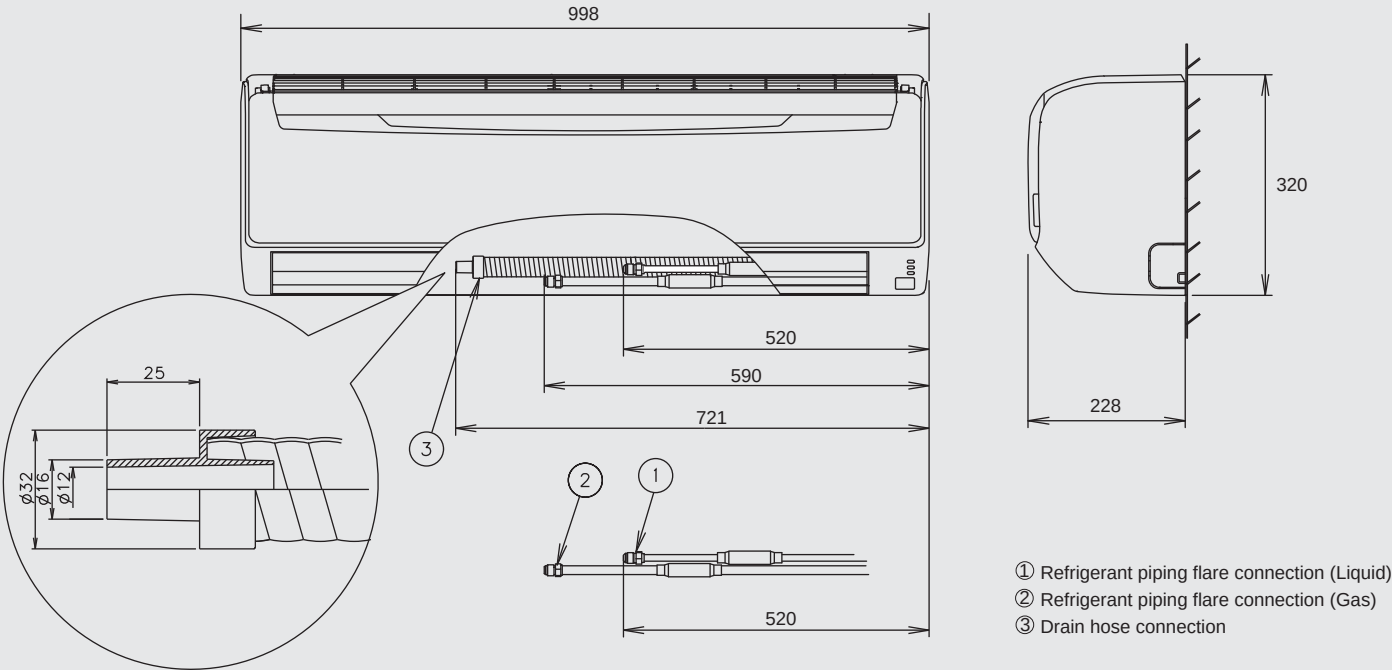
Specifications

Model name			ASYA18GACH	ASYA24GACH	ASYA30GACH
Power source			230V ~, 50Hz		
Capacity	Cooling	kW	5.6	7.1	8.0
	Heating		6.3	8.0	9.0
Input power		W	32	60	91
Airflow rate	High	m³/h	840	1,100	1,240
	Med		770	910	980
	Low		690	730	770
Sound pressure level	High	dB(A)	41	48	52
	Med		39	43	45
	Low		35	35	35
Dimensions (H x W x D)		mm	320 x 998 x 228		
Weight		kg	15		
Connection pipe diameter	Liquid (Flare)	mm	ø9.52		
	Gas (Flare)		ø15.88		
	Drain		ø12 (I.D.) ; ø16 (O.D.)		

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

Dimensions (Unit : mm)

Models: ASYA18 / ASYA24 / ASYA30



CONTROL SYSTEMS



User friendly control system provides individual control to centralized control



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

SYSTEM OVERVIEW

INDIVIDUAL CONTROLLER

CENTRALIZED CONTROLLER

CONVERTOR / ADAPTOR

SERVICE & MAINTENANCE TOOL

CONTROL SYSTEM OVERVIEW

Air Conditioning Individual Control

Wired Remote Controller (Touch panel)
UTY-RNRY



Wired Remote Controller
UTY-RLRY



Simple Remote Controller
UTY-RSKY

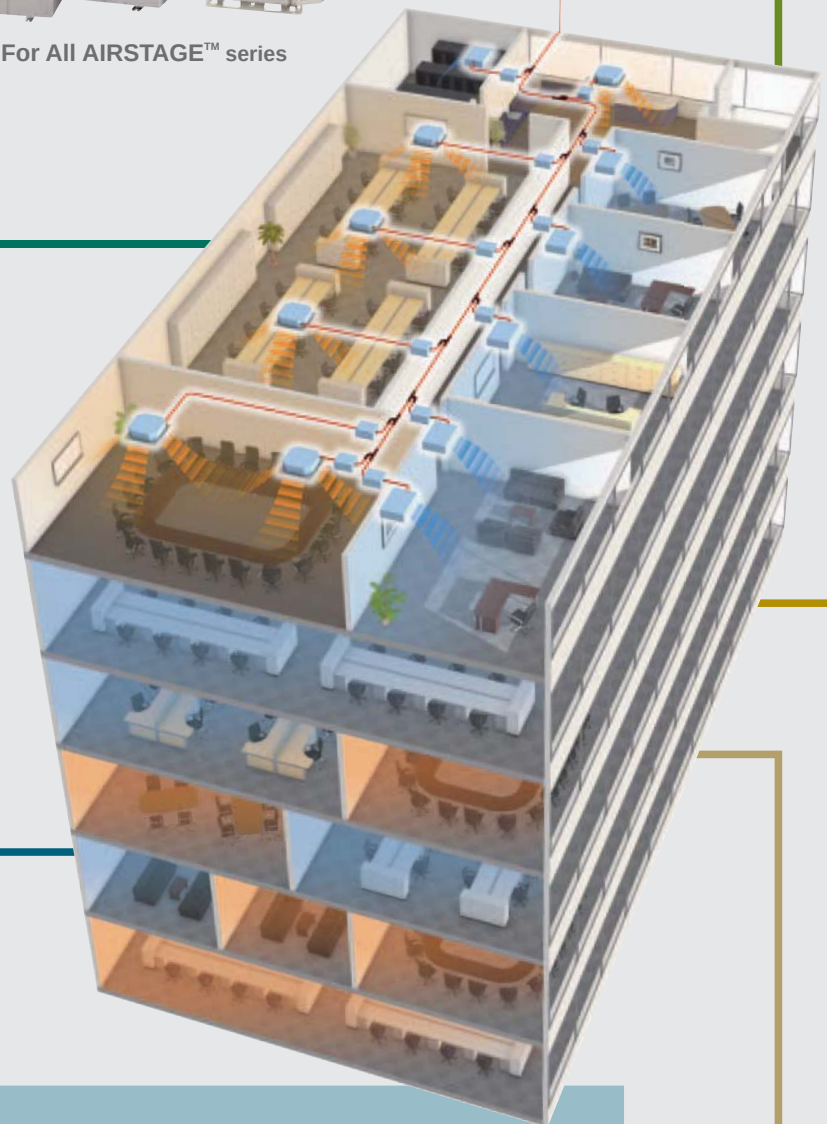


Simple Remote Controller
UTY-RHKY
Without operation mode



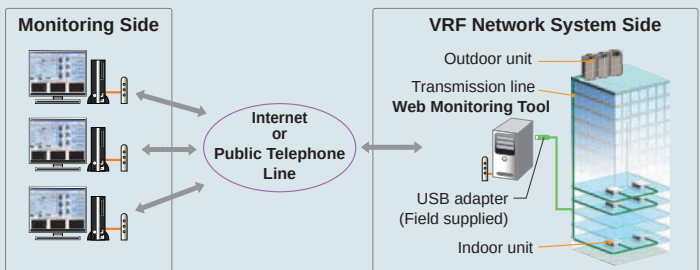
Wireless Remote Controller
UTY-LNHY





Service & Maintenance Tool

Web Monitoring System Software
UTY-AMGX

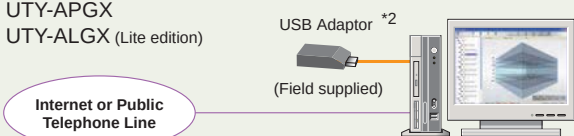


Service Tool Software
UTY-ASGX



Air Conditioning Centralized Control

System Controller Software
UTY-APGX
UTY-ALGX (Lite edition)



Touch Panel Controller
UTY-DTGY



Central Remote Controller
UTY-DCGY

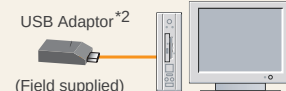


Group Remote Controller
UTY-CCGY

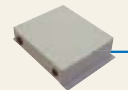


Converter / Adaptor (for external device)

BACnet® Gateway Software
UTY-ABGX



Network Converter (BMS/LONWORKS®)
UTY-VLGX



KNX® Interface
FJ-RC-KNX-1i



MODBUS® Interface
FJ-RC-MBS-1



Wireless LAN Interface
FJ-RC-WIFI-1



External Switch Controller
UTY-TEKX



BMS/BAS*1



BMS, Home automation system



Internet device

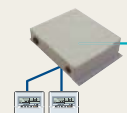


Card-key
(Field supplied)



Converter / Adaptor (for system expansion)

Network Converter
UTY-VGGXZ1



Signal Amplifier
UTY-VSGXZ1

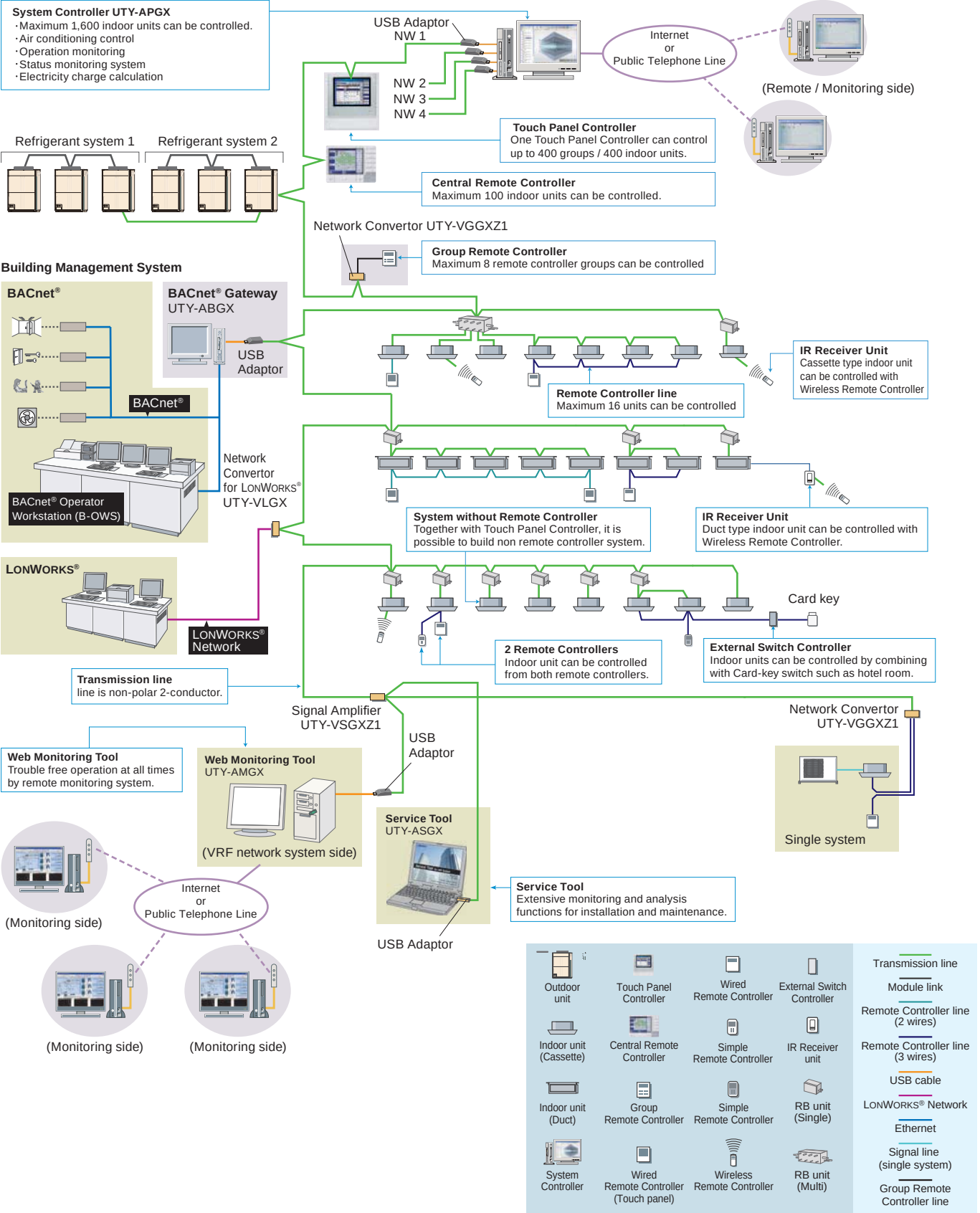


*1. BMS/BAS: Building Management System/Building Automation System
*2. USB Adaptor: Echelon® U10 USB Network Interface

Wiring system

Max. transmission
line length
3,600m

- Wiring construction of the control system is made of power source wiring, transmission wiring and remote controller wiring.
- Total wiring length (total length of transmission line) can be extended up to 3,600m (by using signal amplifiers).



Comparison table of Controllers

Item										
Model name	UTY-RNRY	UTY-RLRY	UTY-RSKY	UTY-RHKY	UTY-LNHY	UTY-CGGY	UTY-DCGY	UTY-DTGY	UTY-ALGX	UTY-APGX
Max. controllable remote controller groups	1	1	1	1	1	8	100	400	400	1600
Max. controllable indoor units	16	16	16	16	16	128	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	●	●	—	—	—	●	●	●	●
	Group setting	—	—	—	—	—	●	●	●	●
	RC prohibition	—	—	—	—	—	●	●	●	●
Display	Anti freeze setting	●	—	—	—	—	●	●	●	●
	Economy mode setting	●	●	—	—	—	●	●	●	●
	Error	●	●	●	—	●	●	●	●	●
	Defrosting	●	●	●	—	—	●	●	●	●
	Current time	●	●	—	—	●	●	●	●	●
	Day of week	●	●	—	—	●	—	●	●	●
	R.C. prohibition	●	●	●	—	●	●	●	●	●
	Cooling/heating priority	●	●	●	—	●	●	●	●	●
	Address display	●	●	●	—	●	●	●	●	●
	Room temp	●	—	—	—	—	—	—	—	—
Timer	Multi language	●	—	—	—	—	●	●	●	●
	Summer time	●	—	—	—	—	●	●	●	●
	Name registration	●	—	—	—	—	●	●	●	●
	Backlight	●	—	●	●	—	●	●	—	—
	2D floor layout / 3D building display	—	—	—	—	—	—	—	—	●
	Schedule timer	Period	Week	Week	—	—	Week	Week	Year	Year
		On/off, Temp, Mode, Times per day	8	4	—	—	4	20	20	144
	On/off timer	●	●	—	—	●	—	—	—	—
	Sleep timer	—	—	—	—	●	—	—	—	—
	Program timer	—	—	—	—	●	—	—	—	—
Control	Auto off timer	●	●	—	—	—	—	—	—	—
	Day off	●	●	—	—	—	●	●	●	●
	Min. unit of timer setting (Minutes)	10 • 30	30	30	30	5	10	10	10	10
	Status monitoring system	—	—	—	—	—	●	●	●	●
	Electricity charge apportionment	—	—	—	—	—	—	—	○	●
	Error history	●	●	●	●	—	●	●	●	●
	Emergency stop	—	—	—	—	—	●*2	●*2	—	—
	Remote management	—	—	—	—	—	—	—	○	●
	Energy saving management	—	—	—	—	—	—	—	○	○
	E-mail notification for malfunction	—	—	—	—	—	—	—	●	●
Key lock	Child lock	●	●	—	—	—	●	●	●	●
	Child lock	●	●	—	—	—	●	●	●	●

*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

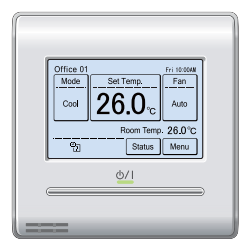
Wired Remote Controller (Touch Panel)

Max. controllable
16
indoor units

UTY-RNRY

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

- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer(ON/OFF,Temp.,Mode)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)



Functions

High performance and compact size

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



Accurate and comfortable control

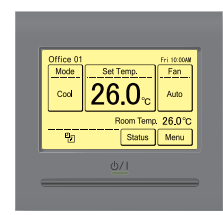
- Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller.



Room temperature sensor Room temperature display

Backlight

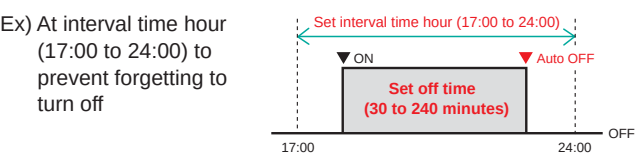
- Backlight enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.



Various energy saving control

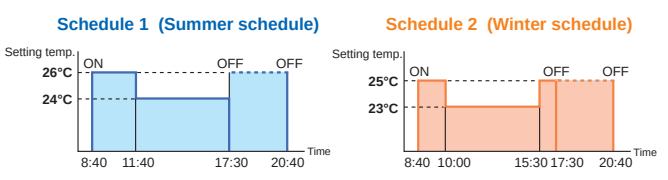
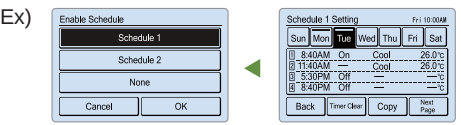
Auto OFF Timer

- The indoor unit automatically turns off after a set time has passed.
- The time interval for which auto off works can be set.



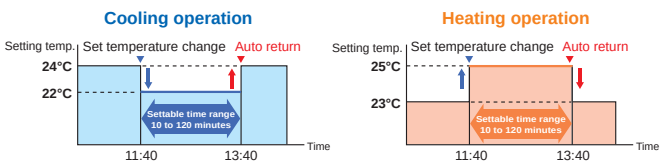
2 schedules Weekly Timer

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



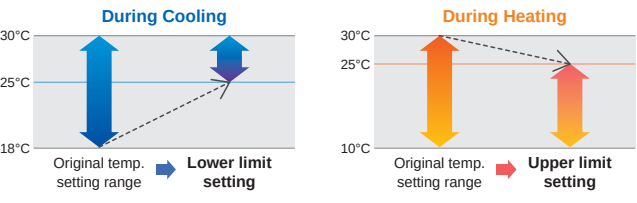
Set Temperature Auto Return

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



Set Temperature Upper and Lower Limit Setting

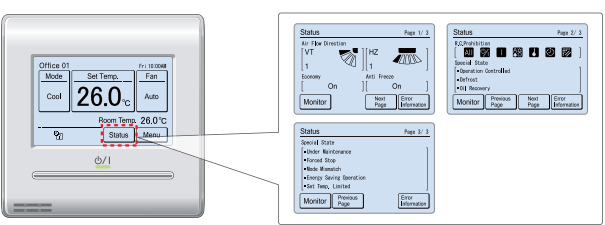
- The set temperature range can be set for each operation mode. (Cooling / Heating / Auto)



Various convenient functions

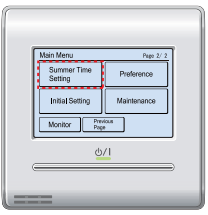
Displays setting status and Limitations

- The remote controller settings can be easily checked



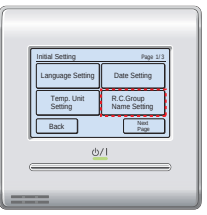
Summer Time display

- This function can be set easily from Menu screen



Child lock

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



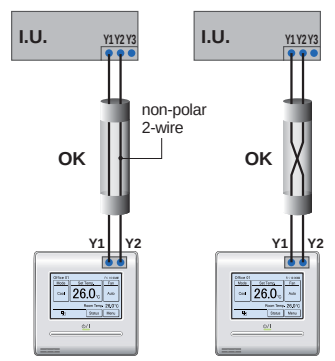
Name Registration

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

Simplified installation

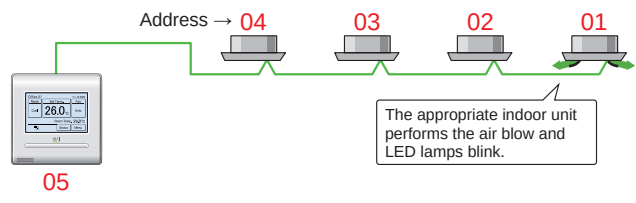
Uses non-polar 2-wire type

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



Auto Address Setting/Setting Position Notification

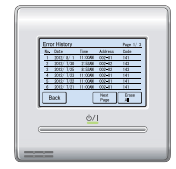
- Reduce errors and install time compared with the current specification Rotary SW
- When will be set remote controller groups, can also be set automatically new Wired remote controller address
- After auto address setting of new wired remote controller groups, what number can also confirm addresses



Easy Maintenance

Error History Display

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



Specifications

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

DC12V is supplied by the indoor unit.

Wired Remote Controller

UTY-RLRY

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

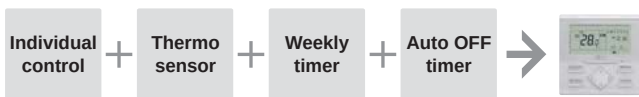


Max. controllable
16
indoor units

Functions

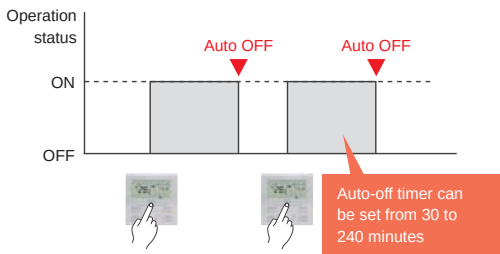
High performance and compact size

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



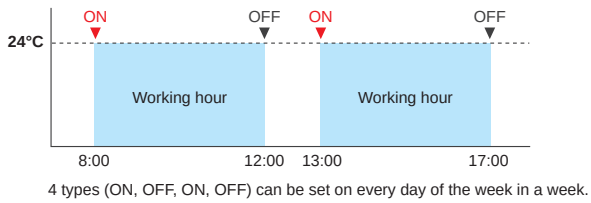
Auto-off timer

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



Weekly timer function

- Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.



Specifications

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

DC12V is supplied by indoor unit.

Simple Remote Controller

UTY-RSKY / UTY-RHKY (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.



UTY-RSKY



UTY-RHKY
Without Operation mode

Max. controllable
16
indoor units

Functions

User-friendly operation

- Provides access to basic operations, such as Start / Stop, Fan control, Operation mode switching, and Room temperature setting.
- A large On / Off button is provided in the centre of the remote controller for easy operation.
- Can be used jointly with other individual control unit.
- Following an error display, diagnostics can be carried out on the controller.

Simple installation

Can be mounted on the European Mounting Box (Installation dimension: 60mm) or the JIS Built-in Box (Installation dimension: 83.5mm).



Specifications

Model name	UTY-RSKY	UTY-RHKY
Power Supply	DC 12V	
Dimensions (H x W x D) (mm)	120 x 75 x 14	
Weight (g)	90	

DC12V is supplied by the indoor unit.

Backlight

- Backlight enables easy operation in a darkened room.
- Backlight activates during all button operations, and lasts 10 seconds in Operation mode and 5 seconds in stop mode after a button is pressed.



Functions summary

Model	UTY-RSKY	UTY-RHKY
Operation		
On / Off	●	●
Fan control	●	●
Operation mode	●	— *1
Room temp. setting	●	●

*1: "Operation mode" setting is not available.
It is recommend to use together with other type controller.

Wireless Remote Controller

UTY-LNHY

Simple and sophisticated operations with a choice of 4 daily timers

- A single controller controls up to 16 indoor units.



Max. controllable
16
indoor units

Selectable
4
daily timers

Functions

Built-in daily timer

Select from 4 different timer programs :

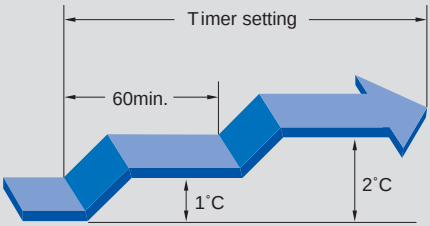
On / Off / Program / Sleep

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.

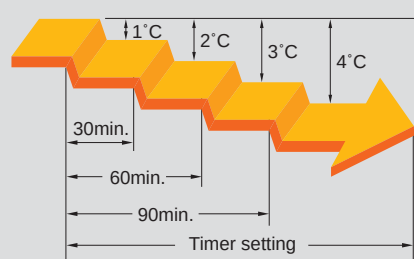
Cooling operation/dry operation

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.



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.

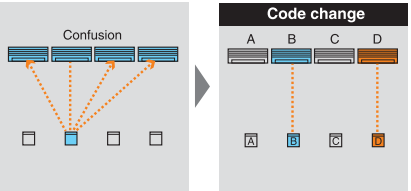


Specifications

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

Easy installation and operation

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

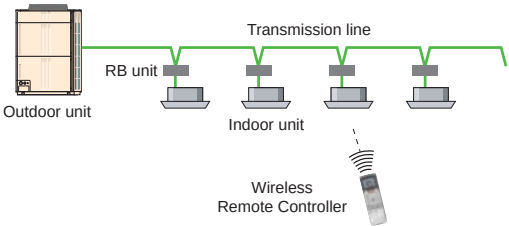


Wide and precise



Address setting

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



IR Receiver Unit

UTB-YWC

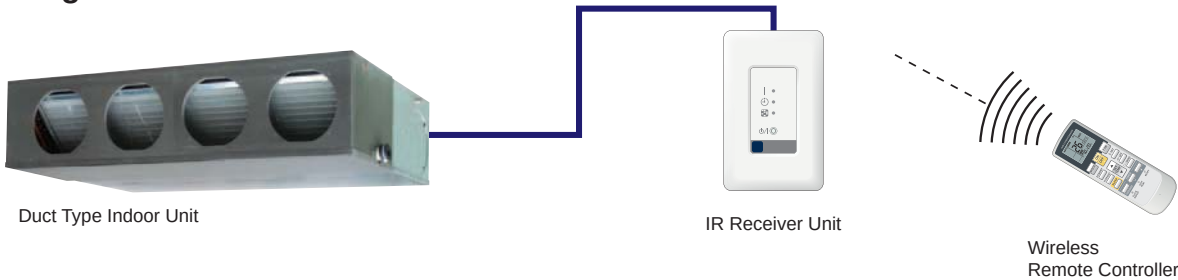
Necessary to control for all Duct types* by Wireless Remote Controller

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

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



Wiring connection



Specifications

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

IR Receiver Unit

UTY-LRHYB1

Cassette type indoor unit can be controlled with Wireless Remote Controller



Specifications

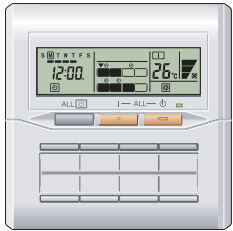
Model name	UTY-LRHYB1
Power Supply	DC 5V
Dimensions (H x W x D) (mm)	193.9×193.9×31.2
Weight (g)	140

Group Remote Controller

UTY-CGGY

Group control of indoor units with simple operation

- Up to 8 remote controller groups can be controlled by one Group Remote Controller.
- Up to 64 Group Remote Controllers can be connected in one VRF network system.
- Network Converter (UTY-VGGXZ1) is required to connect Group Remote Controllers to a VRF network system.
(Network Converter allows up to 4 Group Remote Controllers)

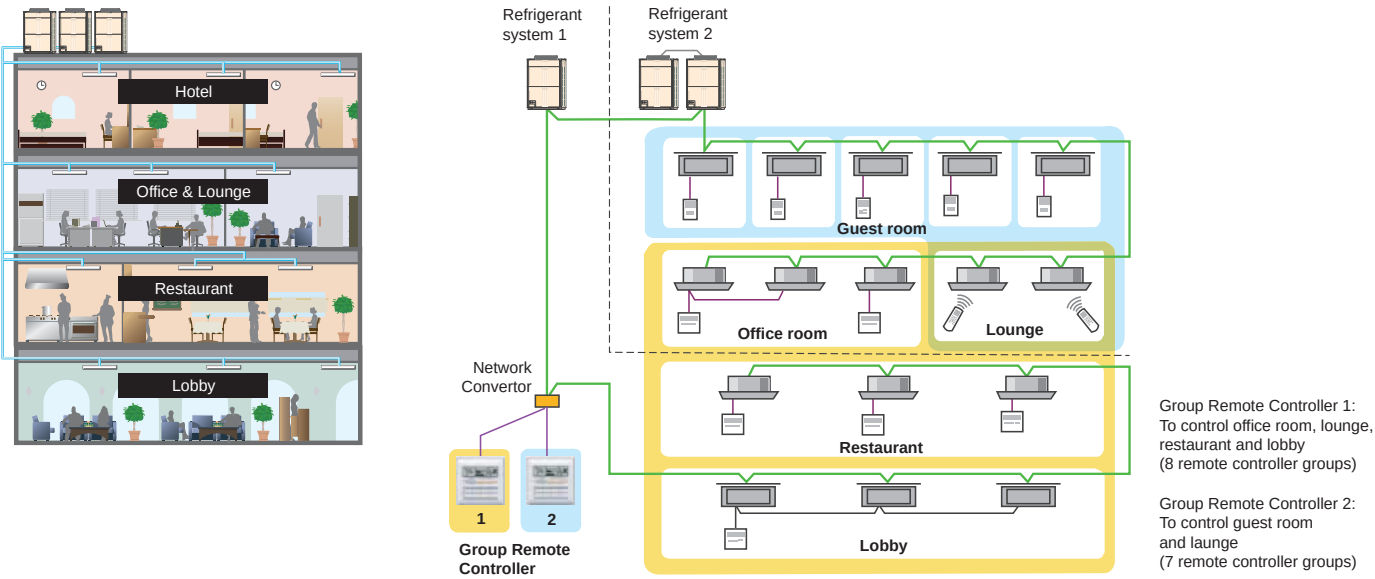


Max. controllable
8
remote controller
groups

Max. controllable
64
group R.C. in a VRF
network system

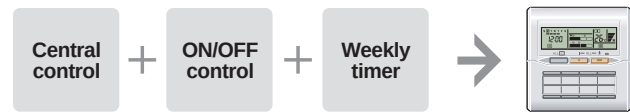
Control up to 8 remote controller groups

Single Group Remote Controller controls and monitors up to 8 remote controller groups.



High performance and compact size

ON / OFF, Operating mode, Room temperature and Fan speed setting can be controlled / monitored centrally or individually.



Built-in weekly timers

The weekly timer is provided as a standard function.

1. The timer can be set up for up to 4 times per day.
(On / Off, operating mode, set temperature)
2. Allows separate settings for each day of the week.

Specifications

Model name	UTY-CGGY
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	200

DC12V is supplied by a network converter.

Central Remote Controller

UTY-DCGY

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

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

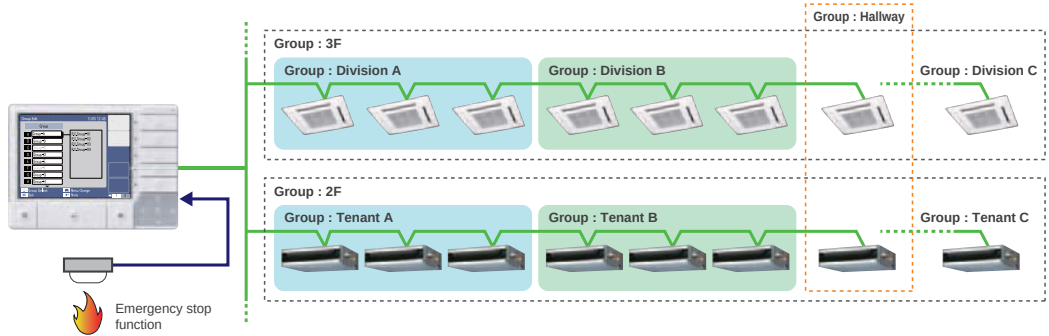


Max. controllable
100
Indoor units

Max. controllable
16
groups

System overview

- It allows multiple indoor units grouping (Max.16 groups controlled)
- Interlock with external device



Functions

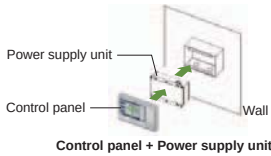
- Diverse control of indoor units
- Remote controller prohibition (All, On / Off, Mode, Temp, Timer, Filter)
- Weekly timer
- Error history
- Automatic clock adjustment



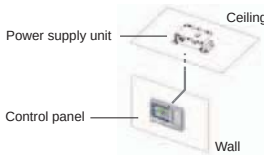
Easy Installation

- The control panel and power supply unit can be installed separately.
- For flexibility in installation, the Control panel can be built into the wall or fix on the wall.

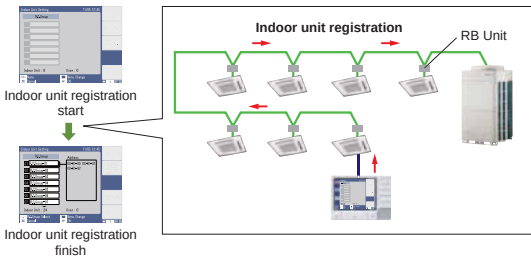
Setting pattern 1



Setting pattern 2



- Automatic or manual indoor unit registration



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

<PACKING LIST>

Packing List	Control Panel / Power Supply Unit / Connecting cable, etc.
--------------	--

Touch Panel Controller

UTY-DTGY

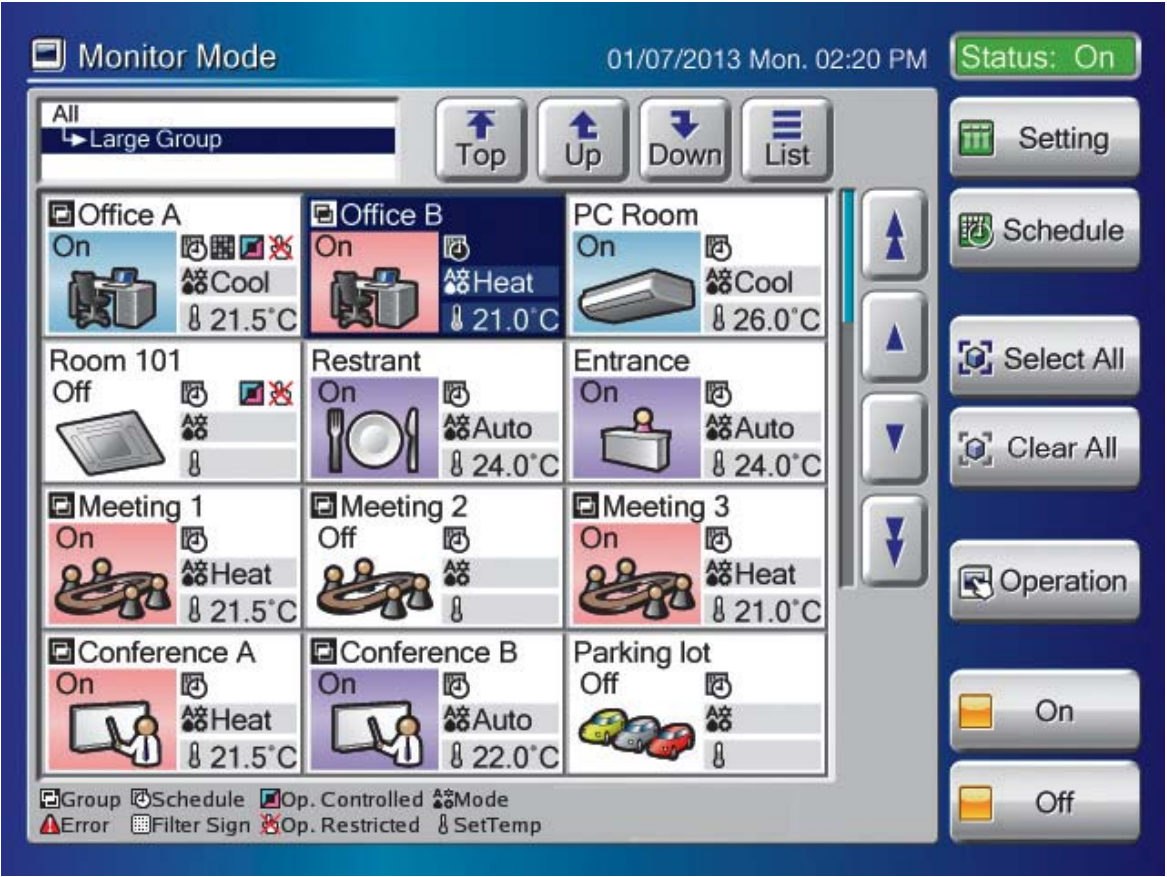
High visibility and easy operation via high resolution 7.5 inch TFT-LCD touch panel screen

- Large-sized 7.5-inch TFT color
- LCD Easy finger touch operation
- Stylish shape and design to suit all application
- No additional component is required for installation
- Up to 400 indoor units can be controlled
- Selectable 2 display types (Icon / List) in monitoring mode
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.



Max. controllable
400
Indoor units

Functions



Easy operation

- Large and wide-angled LCD is easily viewable even at a distance
- Easy-to-understand icon-driven Graphical User Interface (GUI)
- Wide range of simple-to-understand icons



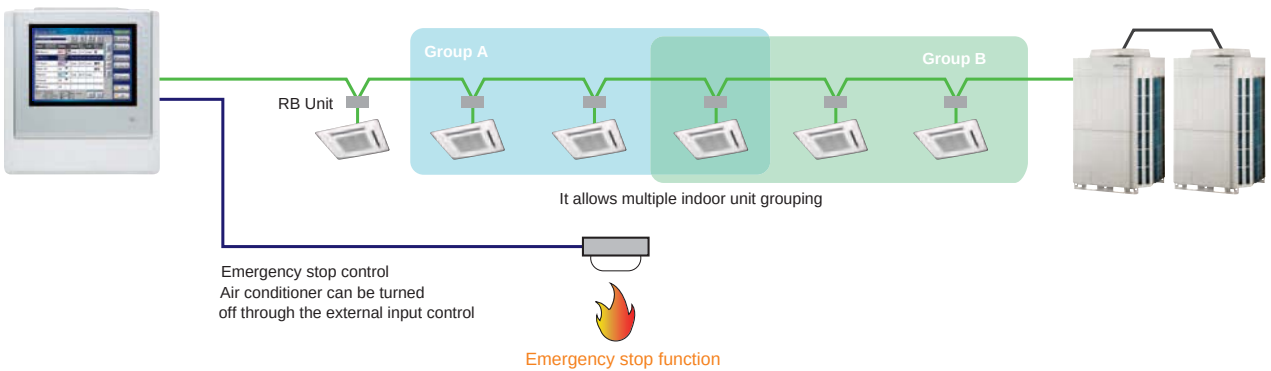
- Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon
- Up-to-date status display
- Background color identifies current control operation Blue for monitoring, green for operational control

Easy maintenance

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

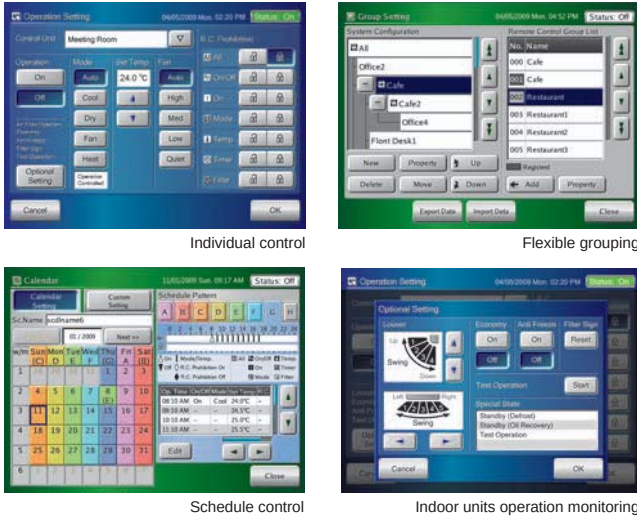


Up to 400 indoor units can be controlled



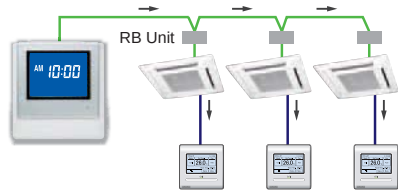
Function

- Up to 400 indoor units can be controlled
- It allows multiple indoor units grouping
- Schedule timer function is standard (20 patterns per day)
- Emergency stop function(through the external input control)
- Temperature upper and lower limit setting
- The clock of each indoor unit correct setting



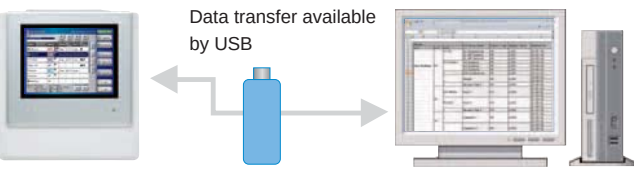
Automatic clock adjustment

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



Versatility

CSV format data edited by PC can be imported to Touch Panel Controller.



Easy installation

Touch Panel Controller is easily mounted to the wall Flat back surface allows to be installed wherever it is needed.

- Correctable mechanism for tilting (horizontal) after the installation of the body
- No additional component is required for installation
- There is no need for the installation space of power supply adaptor and transmission adaptor etc.



Specifications

Model name	UTY-DTGY
Power Supply	100-240V 50/60Hz, Single phase
Dimensions (H x W x D) (mm)	260 x 246 x 54
Weight (g)	2,150
Interface	USB 2.0

System Controller Software

UTY-APGX

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

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



Max. controllable
4
VRF network
systems

Max. controllable
400
Outdoor units

Max. controllable
1,600
Indoor units

System Controller Lite Software

UTY-ALGX

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

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



Max. controllable
1
VRF network
systems

Max. controllable
100
Outdoor units

Max. controllable
400
Indoor units

Functions

User friendly view and operation

- **Click & Operate** : The property is shown visually from the perspective most suitable for operation and operated accordingly (Click & Operate). You can select from among the 4 displays of site, building, floor, or list.
- **Freely define groups for batched control** : Indoor units can be freely grouped for simple batched control from a tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.

Click & Operate the whole building !

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

The display is easily changed by pressing the button.

Click & Operate any specified unit(s)!

Site view

List view

Building view

Floor view

Batched control of freely defined groups

Batched control of freely selected units

Click & Operate the whole floor !

Click & Operate the unit !

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

Batched control of freely selected units

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

Diverse operation management & Data management Standard for System Controller and System Controller Lite

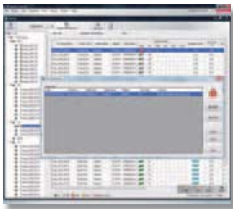
Schedule management

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



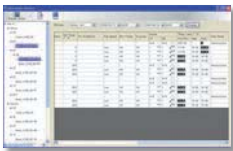
Error display & E-mail notification

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



Operating & control record

Displays the history of operation status and control.



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
- Outdoor unit low noise setting



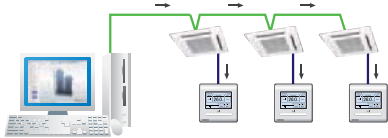
Remote controller prohibition

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



Automatic clock adjustment

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



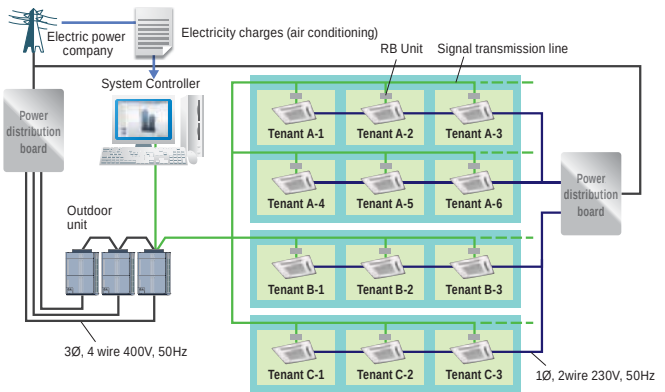
Electricity charge apportionment Standard for System Controller Option for System Controller Lite UTY-PLGXA1

Electricity charge apportionment calculation framework

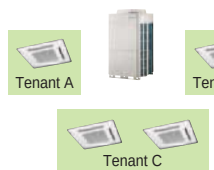
Suppose you want to find the power consumed by the air conditioners of each tenant from the electricity charge for each month. With electricity charge apportionment function, used energy apportionment ratio will be provided, calculating in detail the energy consumed by the units used by each tenant. This information is then used to calculate the charges for the electricity consumed for air conditioning by each tenant from the total electricity charges in the bill from the electric power company. (See figure at right)

The detailed calculation takes into consideration such things as unused rooms and nighttime electricity charges and shows them in a charges calculation sheet.

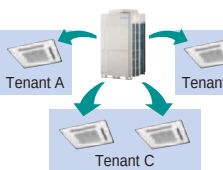
System Configuration Example



Energy used by each unit is calculated

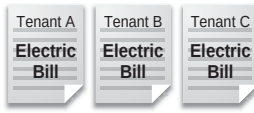


Energy apportioned by the outdoor unit to each indoor unit is calculated

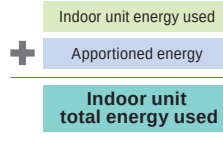


Electricity charges by tenant are calculated

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



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

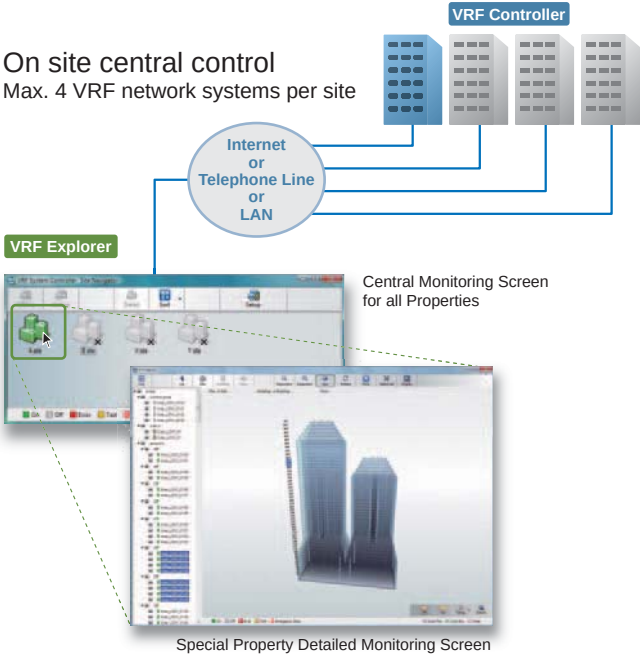


Centralized Controller

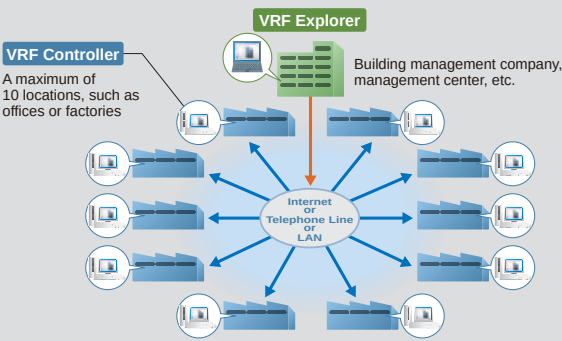
Remote management Standard for System Controller Option for System Controller Lite UTY-PLGXR1

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

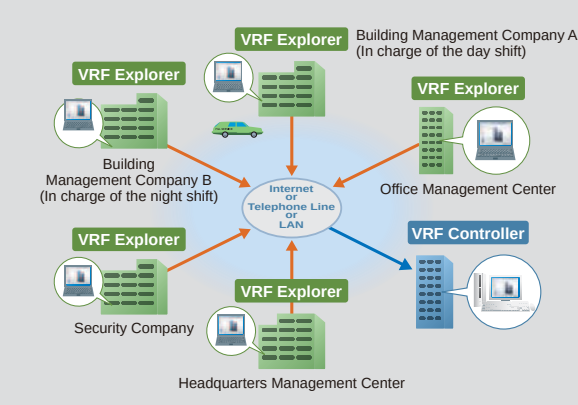
On site central control
Max. 4 VRF network systems per site



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

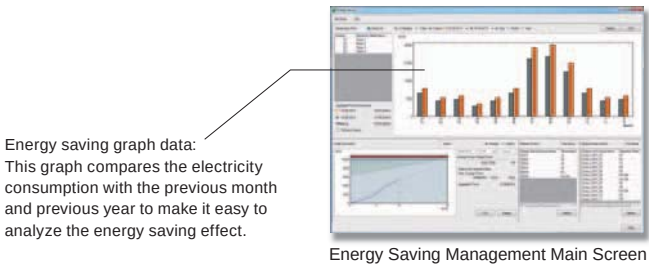


1 VRF Controller can be monitored from any number of VRF Explorers (Up to 5 connections simultaneously).



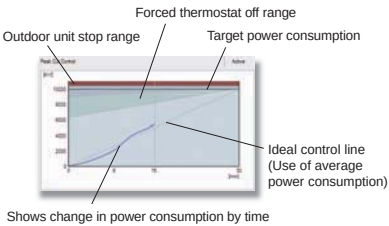
Energy saving management Option for System Controller UTY-PEGX Option for System Controller Lite UTY-PLGXE1

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



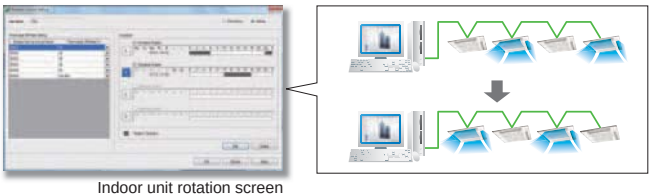
Peak cut operation

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



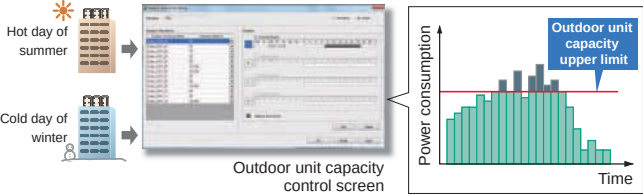
Indoor unit rotation operation

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



Outdoor unit capacity save

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



FUNCTIONS SUMMARY

Function	Type		System controller		System controller lite			
			UTY-APGX	Option UTY-PEGX	UTY-ALGX	Option UTY-PLGXR1	Option UTY-PLGXA1	Option UTY-PLGXE1
System specification	Max. VRF networks supported		4	-	1	-	-	-
	Max. indoor unit / remote controller groups per VRF network		400	-	400	-	-	-
	Max. outdoor units per System controller		100	-	100	-	-	-
	Max. indoor units / remote controller groups per System controller		1600	-	400	-	-	-
	Max. outdoor units per System controller		400	-	100	-	-	-
Site supervision	Multi site display		10	-	10	-	-	-
	Number of building / 1 site		20	-	-	-	-	-
	Number of floor per 1 site		200	-	-	-	-	-
	Number of floor per 1 building		50	-	-	-	-	-
	3D graphical layout view		0	-	-	-	-	-
	2D graphical layout view		0	-	-	-	-	-
	List display		0	-	0	-	-	-
	Tree display		0	-	0	-	-	-
	Group display		0	-	0	-	-	-
Error management	Error notification		0	-	0	-	-	-
	Audible alarm		0	-	0	-	-	-
	Error e-mail notification		0	-	0	-	-	-
History	Error history		0	-	0	-	-	-
	Operation history		0	-	0	-	-	-
	Control history		0	-	0	-	-	-
Operation control	Individual control	On/Off	0	-	0	-	-	-
		Operation mode	0	-	0	-	-	-
		Room temperature	0	-	0	-	-	-
		Fan speed	0	-	0	-	-	-
		Air flow direction	0	-	0	-	-	-
		Economy mode	0	-	0	-	-	-
		Room temperature set point limitation	0	-	0	-	-	-
		Test operation	0	-	0	-	-	-
		Antifreeze	0	-	0	-	-	-
		Outdoor unit low noise setting	0	-	0	-	-	-
	Individual management	Remote control prohibition setting	0	-	0	-	-	-
		Temperature upper and lower limit setting	0	-	0	-	-	-
		Filter sign reset	0	-	0	-	-	-
	Other	Memory operation	0	-	0	-	-	-
		Pattern operation	0	-	0	-	-	-
Schedule	Annual Schedule		0	-	0	-	-	-
	Special day setting		0	-	0	-	-	-
	On /off per day		72	-	72	-	-	-
	On / off per week		504	-	504	-	-	-
	Day off		0	-	0	-	-	-
	Min. unit of timer setting (Minutes)		10	-	10	-	-	-
	Low noise mode Weekly schedule		0	-	0	-	-	-
Remote managemment	Remote monitoring		0	-	-	0	-	-
	Remote operation control		0	-	-	0	-	-
	Remote function setting		0	-	-	0	-	-
Electricity charge apportionment	Apportionment charge/bill calculation		0	-	-	-	0	-
	Tenant (block) setting		0	-	-	-	0	-
	Common facilities apportionment setting		0	-	-	-	0	-
	Rated power consumption allotment setting		0	-	-	-	0	-
	Individual calculation at cooling and heating		-	0*	-	-	0	-
Energy saving management	Electricity meter supported		-	0	-	-	0	-
	Indoor unit rotation		-	0	-	-	-	0
	Peak cut control		-	0	-	-	-	0
	Outdoor unit capacity save		-	0	-	-	-	0
	Record of energy saving operation		-	0	-	-	-	0
	Energy saving information		-	0	-	-	-	0
	Power consumption monitor		-	0	-	-	-	0
	Electricity meter supported		-	0	-	-	-	0
Others	Database import/export		0	-	0	-	-	-
	Automatic clock adjustment		0	-	0	-	-	-
	Multi language		7 languages	-	7 languages	-	-	-

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

Personal computer system requirements

	System Controller	System Controller Lite
Operating system	• Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2 • Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8 (32-bit or 64-bit), Windows® 8 Pro (32-bit or 64-bit) • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish	
CPU	Intel® Core™ i3 2 GHz or higher	
Memory	• 2 GB or more (for Windows Vista® and Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8, and Windows® 8.1)	
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) 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 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 5 ports) (Required only for the Server PC that works as VRF Controller) - Maximum of 4 USB ports are required for 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	
Optical drive	DVD-ROM drive	

•Personal computer that satisfies the following system requirements
•Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)

<Packing list>

Type	For System controller		System Controller Lite	For System controller Lite		
	System controller	Option Energy manager		Option Remote access	Electricity charge apportionment	Energy saving
Model name	UTY-APGX	UTY-PEGX	UTY-ALGX	UTY-PLGXR1	UTY-PLGXA1	UTY-PLGXE1
DVD-ROM	1	1	1	-	-	-
WibuKey ¹ (Software protection key)	1	1	1	1	1	1

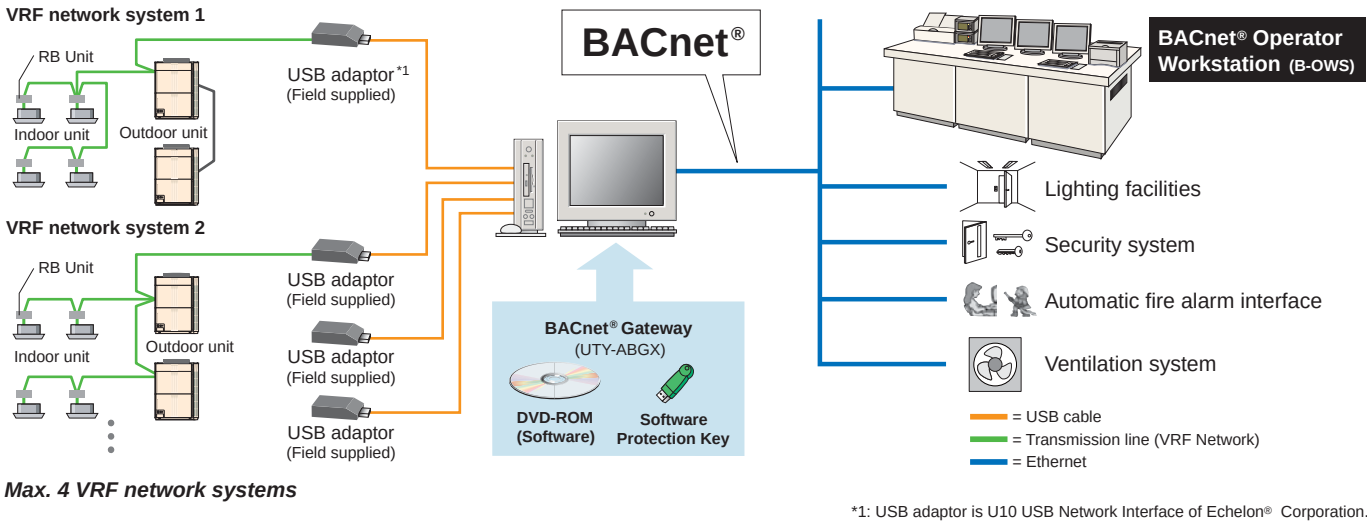
*1:Software protection key to be inserted in a USB slot running System Controller or System Controller Lite.
System Controller or System Controller Lite may only run on a PC with Wibu Key. However, WibuKey is not required for remote VRF Explorer software.

BACnet® Gateway

UTY-ABGX

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks.
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2004) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet® Gateway.
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

Installation example



Personal computer system requirements

	UTY-ABGX
Operating system	• Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2 • Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8 (32-bit or 64-bit), Windows® 8 Pro (32-bit or 64-bit) • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) [Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish
CPU	Intel® Core™ i3 2 GHz or higher
Memory	• 2 GB or more (for Windows Vista® and Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8, and Windows® 8.1)
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 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
Optical drive	DVD-ROM drive

<Packing list>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals for BACnet® Gateway.
Wibu Key (Software protection key)	1	Software protection key to be connected to USB port on the BACnet®-installed PC. BACnet® Gateway runs only on a PC with WibuKey.

- Personal computer that satisfies the following system requirements
- Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)



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

Max. controllable
4
VRF network systems

Max. controllable
400
Outdoor units

Max. controllable
1,600
Indoor units

Network Convertor for LONWORKS®

UTY-VLGX

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

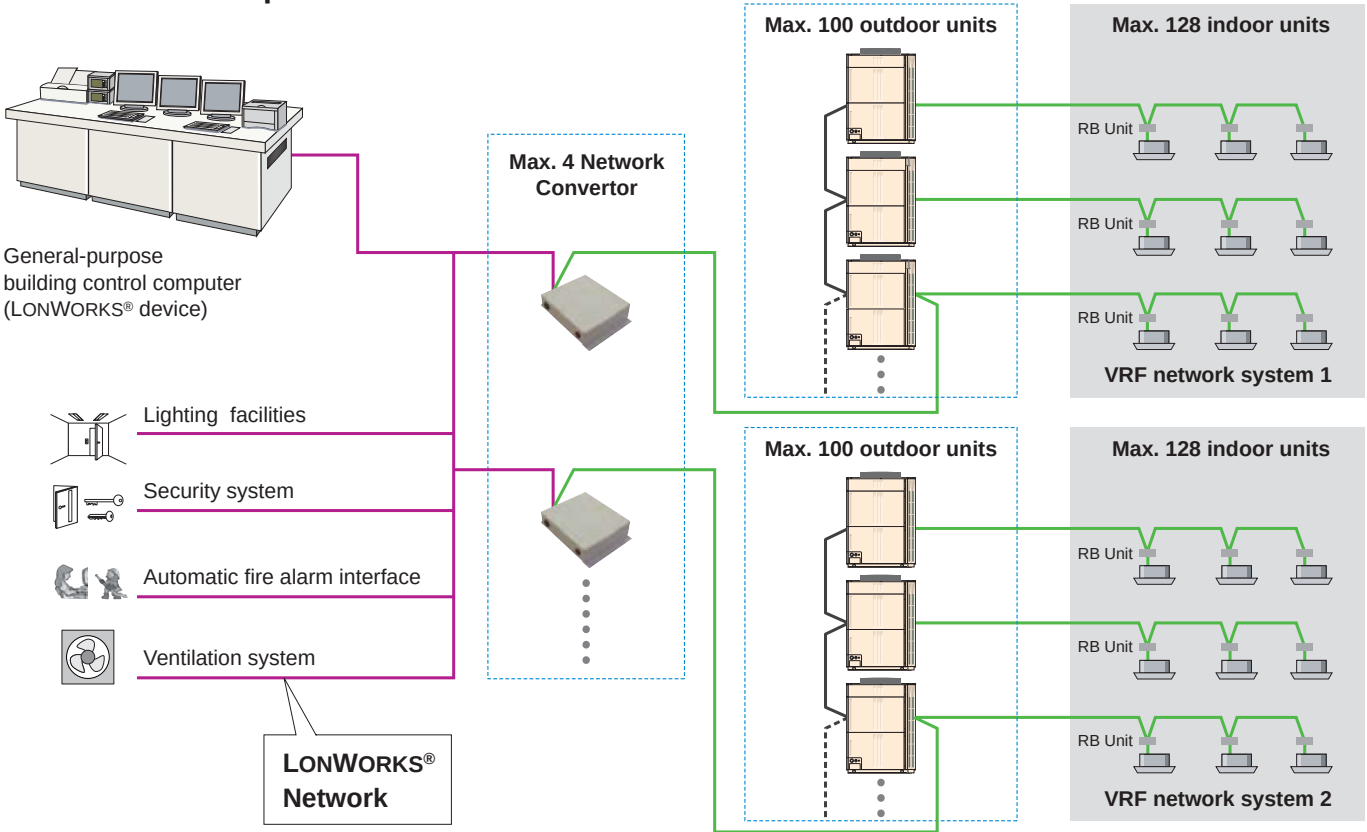


Max. controllable
4
Units to BMS

Max. controllable
100
Outdoor units

Max. controllable
128
Indoor units

Installation example



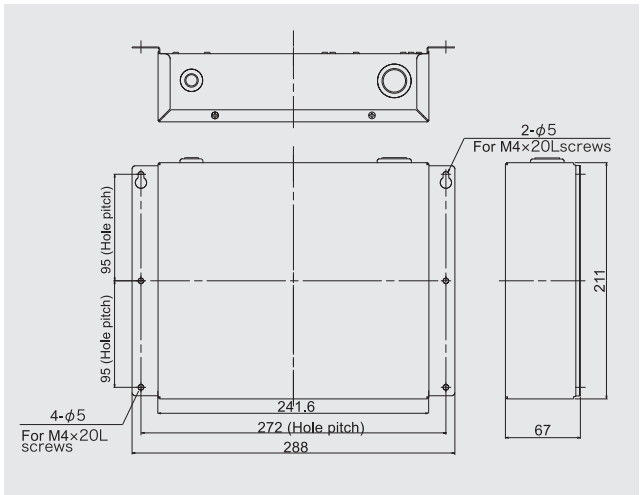
Specifications

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

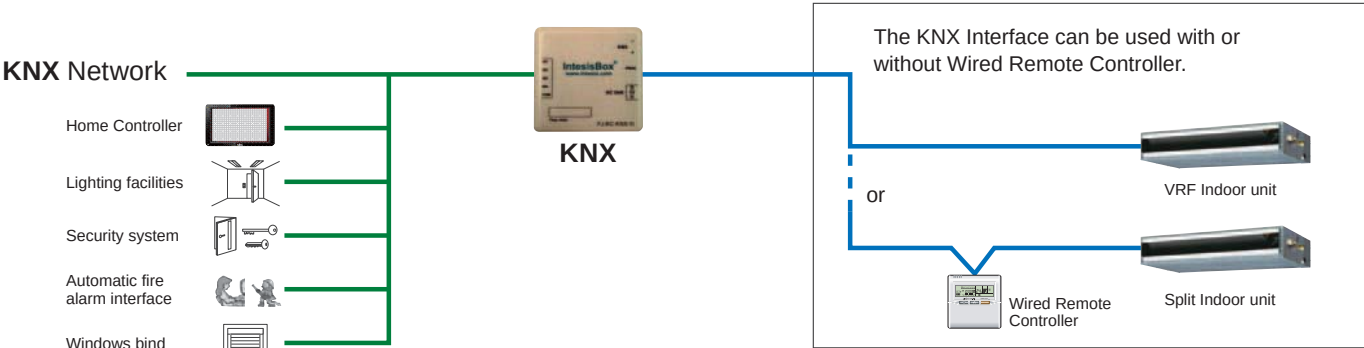
Dimensions (Unit : mm)



KNX® Interface

FJ-RC-KNX-1i

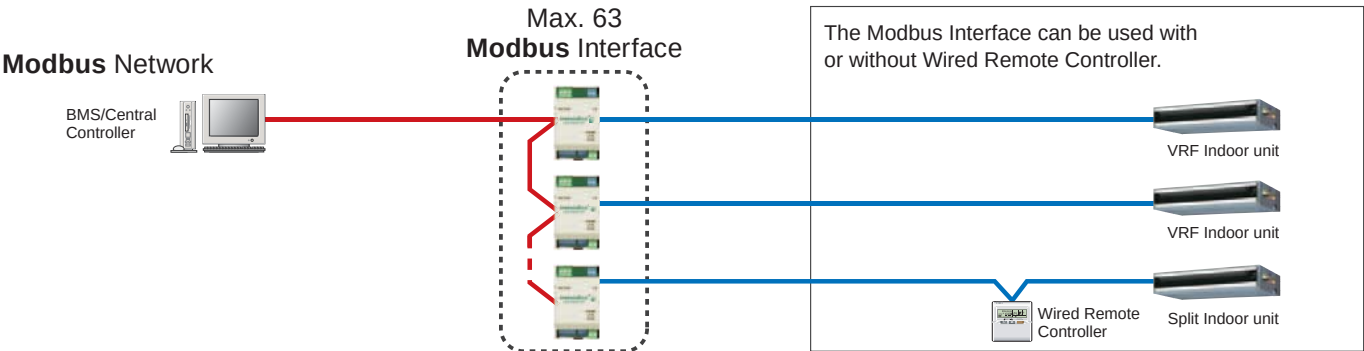
- The KNX Interface allows a complete integration of air conditioners with KNX Network systems.
- Simple installation due to small and compact size.
 - No separate external power supply required (just KNX bus power).
 - Can be used for single indoor units and group controlled (up to 16) indoor units



MODBUS® Interface

FJ-RC-MBS-1

- The Modbus Interface allows a complete integration of air conditioners into Modbus Networks.
- Simple installation due to small and compact size.
 - No separate external power supply required.
 - The Modbus Interface permits central monitoring and control of air conditioners from BMS, .



Specifications

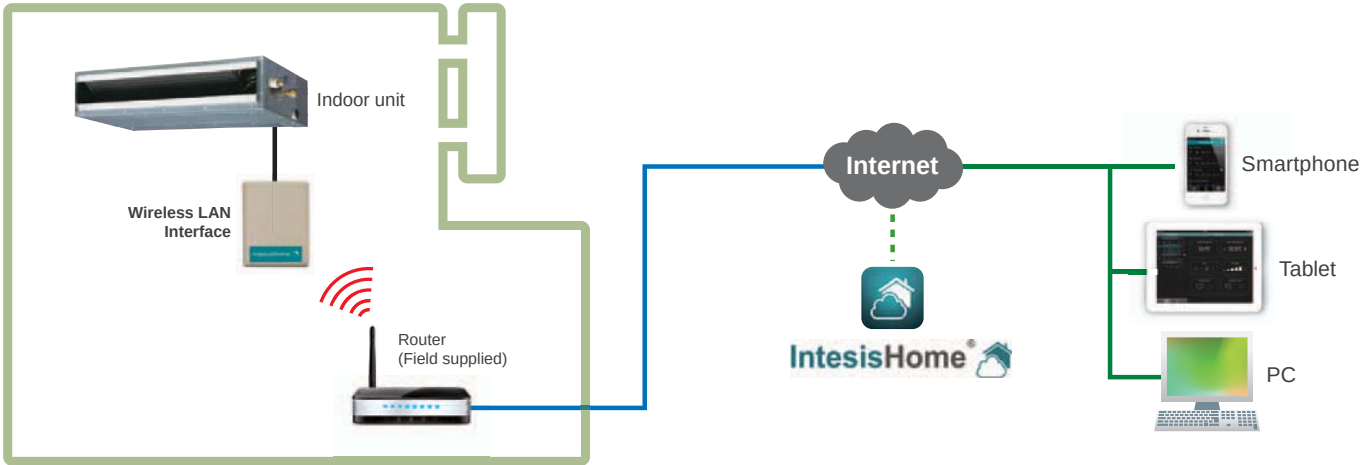
Model name	FJ-RC-MBS-1
Dimensions (H x W x D) (mm)	93×53×58
Weight (g)	85

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

Wireless LAN Interface IntesisHome®

FJ-RC-WIFI-1

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



Basic control

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



Advanced control (Optional functions)

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

Notifications and History

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

Specifications

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

External Switch Controller

UTY-TEKX

Air conditioner switching can be controlled by connecting other sensor switches

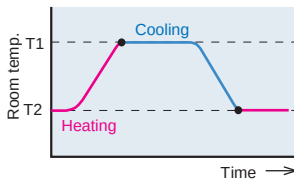
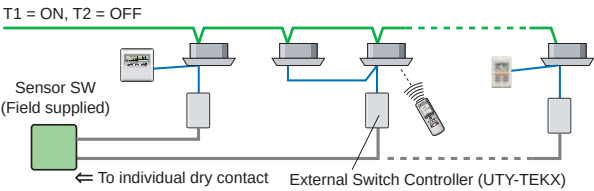
- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a field supplied parts.



Installation example

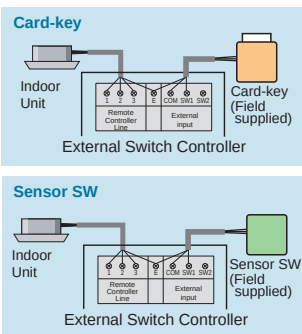
Auto mode operation, which switches the cooling and the heating automatically, is enabled by using the sensor switch and External Switch Controller.

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



- 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



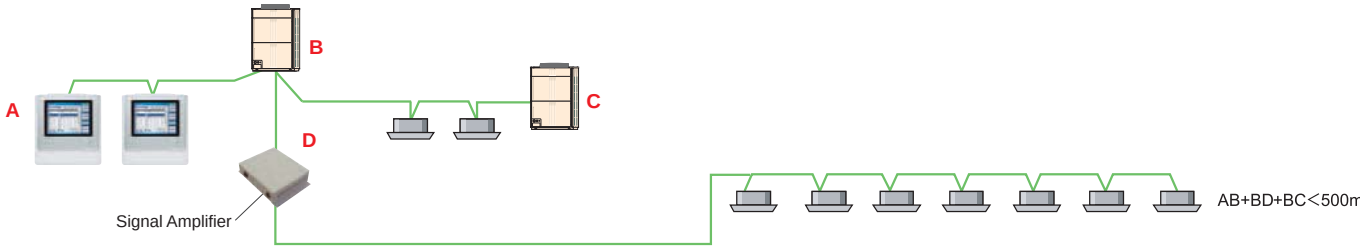
Signal Amplifier

UTY-VSGXZ1



- Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.
- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,
 - (1) When the total wiring length of the transmission line exceeds 500m.
 - (2) When the total number of units on the transmission line exceeds 64.

Installation example



Specifications

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

DC12V is supplied by the indoor unit.

Model name	UTY-VSGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

Network Convertor

UTY-VGGXZ1



Max. controllable
16
 single indoor
 units

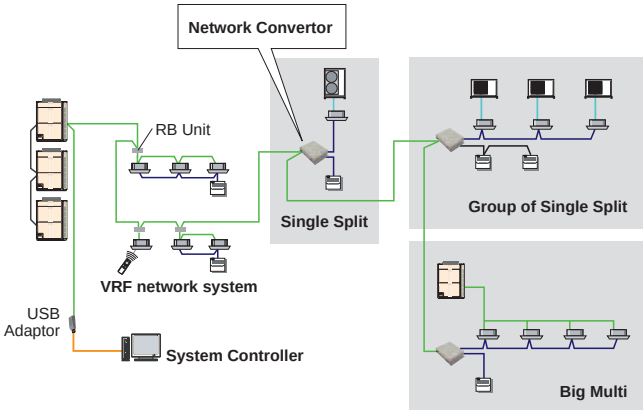
Max. controllable
4
 Group Remote
 Controllers

- This Network Convertor is to be used for connecting single split system or Group Remote Controller (UTY-CGGY / UTY-CGGG) with the VRF network system.
- Please select the function by switching the dip switch during the installation.

Functions

Used for connecting single split system

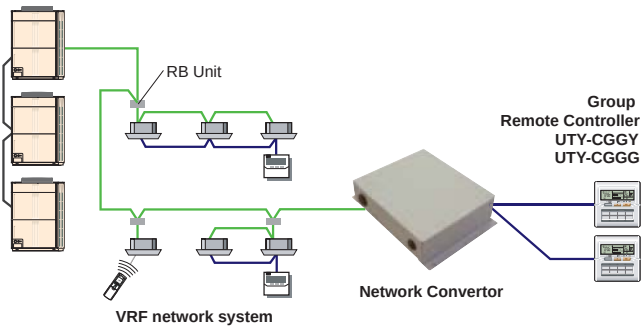
- Split type systems can be centrally controlled from Touch Panel Controller or System Controller through connection to the VRF's network convertor.
- On / Off Control, Master control, Room temperature and Fan speed setting via the Network Convertor are available.
- One Network Convertor can be used to connect and control up to 16 single units.



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

Used for connecting Group Remote Controller

4 Group Remote Controllers can be connected to a single Network Convertor (UTY-VGGXZ1).



* 2 refrigerant circuits can be covered by a single Network Convertor (UTY-VGGXZ1) .
 Up to a total of 16 Network Convertors (UTY-VGGXZ1) and System Controller adaptors can be connected in a single VRF network system.

Specifications

Model name	UTY-VGGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	8.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

Service Tool

Software

UTY-ASGX

Extensive monitoring and analysis functions for installation and maintenance.

- Operation status can be checked and analyzed to detect even the small abnormalities.
- Data collected and stored on site can be checked later, off-line, off-site for more detail analysis.
- One VRF network system with maximum number of up to 400 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, graphs as well.
- Simple operation control functions are useful during maintenance.
- The recent error history can be retrieved from units on demand to perform analysis on the cause of the error, after connecting Service Tool to the VRF network system.
- Commissioning tool supports test runs, data storage for each unit and saving of data as CSV files, which may be formatted to create commissioning report.
- Connectable to any point of transmission line with USB adaptor*¹ (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- 14 advanced functions are available for the VR-II series for through servicing and through shooting.
- The operating state (Solenoid valve) of RB unit can be checked.

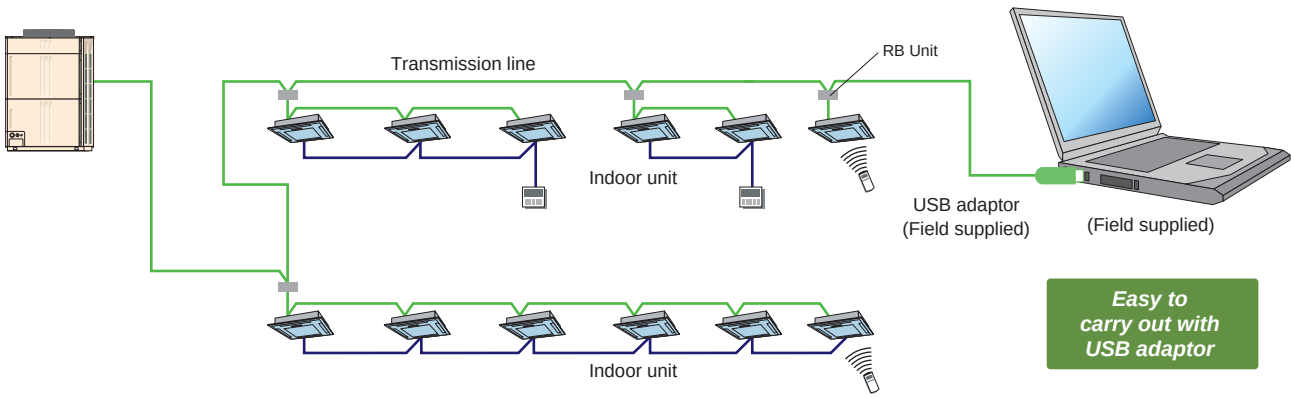
* 1: Service Tool (UTY-ASGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type(UTR-YTMA)

Max. Monitor
100
Outdoor units

Max. Monitor and control
400
Indoor units



Wiring connection



*USB Adaptor is U10 USB Network interface of Echelon® Corporation.

Functions

1) System List

Displays the overall operation status of all or specified units in the system in a list form.



2) Equipment Detail (Diagram)

Displays the detail information for sensor values, electrical components etc. for the specified units in schematic. The information here can be used along with the detail information in list form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.



3) Equipment Detail (List)

Displays the detail information for sensor values, electrical components etc. of units in a specified refrigerant system in list form. The information here can be used along with the detail information in diagram form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.



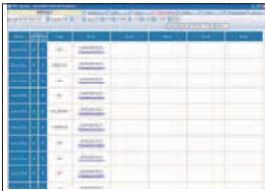
4) Operation History

The indoor units or outdoor unit operation history can be recorded. The displayed operation history can be printed out and saved to a CSV file.



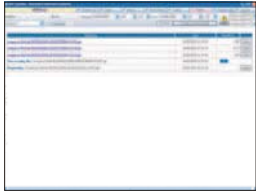
5) Error History

Displays the error information for each unit. The error information can sequentially be displayed up to 50 items as they occur starting with the latest error.



6) Remote File Download

Operation and error history data can be downloaded. Only the required data may be downloaded specifying the refrigerant system, unit and time range.



7) Commissioning Tool

Test run commands can be executed with this tool. During test running, the outdoor unit / indoor unit sensor data can be saved (commissioning log data). After the end of test running, this data can be exported in CSV file format.

9) Remote Setting *

Function (Field) Setting for indoor unit is realized remotely



8) Network Topology Analyzer *

A list of units connected to the VRF system network is displayed in network segments in tree form.



10) System Time Setting *

An arbitrary time is set for all the remote controllers within the system.

11) Central Release *

The operation setting restriction function of the indoor units set from the controller can be forcibly released.(remote controller inhibit, temperature upper/lower limit setting)

12) Model Name Writer *

An arbitrary model name can be written to the target unit.

13) Error Memory Reader *

When an error occurs at an outdoor unit, the operation data records before the error are acquired over a network and saved to a CSV file.

Note: To perform "Error Memory Reading", Service Tool and the corresponding outdoor unit must be connected directly with each other. Refer to the Operation Manual of the Service Tool for detail.

14) Time Guard Information *

Reference data for judging the maintenance period of indoor and outdoor units (compressor,FAN, etc. integrated time) is output to a CSV file.

*: Supported by Ver. 1.1 or later

Personal computer system requirements

	UTY-ASGX
Operating system	• Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2 • Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8 Pro (32-bit or 64-bit) • Microsoft® Windows® 8.1 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 [32-bit], and Windows® 8.1 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8 [64-bit], and Windows® 8.1 [64-bit])
HDD	10 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	• 2 USB ports - 1 USB port is required for WibuKey connection - 1 USB port is required for Echelon® U10 USB Network Interface
Software	Internet Explorer® 8, 9, 10 or 11 / Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive

<Packing list>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals
WibuKey (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC. These products runs only on a PC with WibuKey.

- Personal computer that satisfies the following system requirements
- Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)

Web Monitoring Tool

Software

UTY-AMGX

Product features

- Troubleshooting is performed by monitoring each unit remotely during periodical system checks off-site.
- Operation status can be checked and analyzed to detect even the smallest abnormalities.
- Four VRF network systems each with 400 units, with maximum number of up to 1,600 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, and graphs as well.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in off-line mode of the Service Tool.
- Error notification can be automatically transmitted to several locations using the internet*¹.
- Monitoring side computer is not required to install special software, requires only general web browser.
- Connectable to any point of transmission line with U10 USB interface*² (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- The operating state (Solenoid valve) of RB unit can be checked.

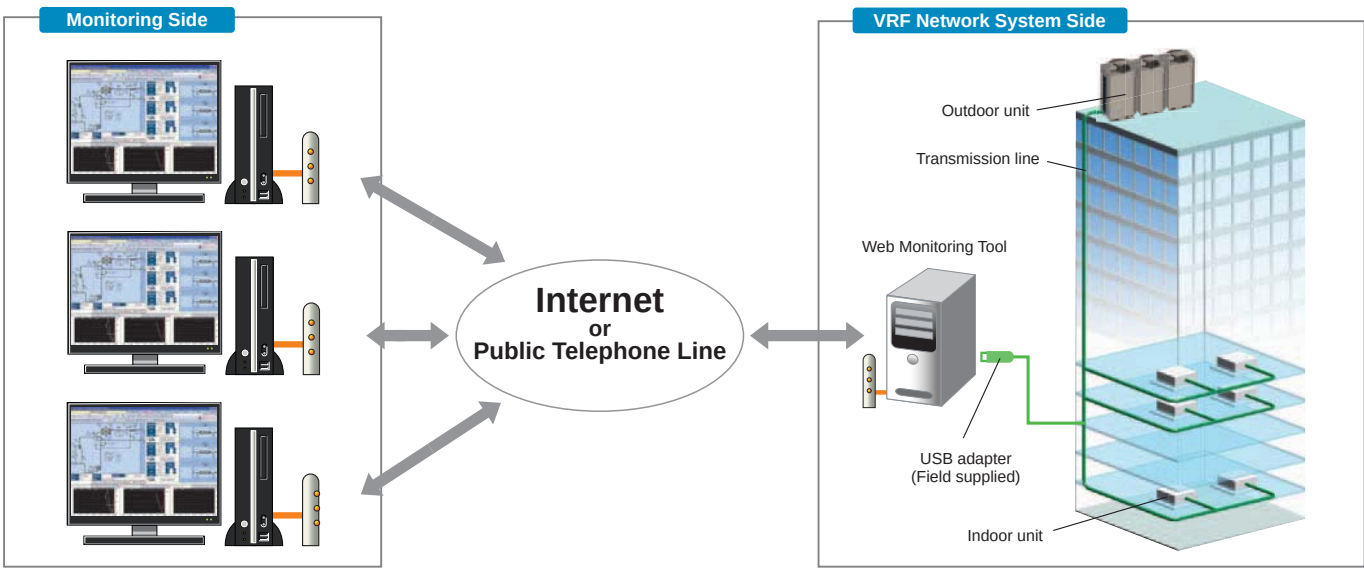
* 1: USB of internet mail system required.
* 2: Web Monitoring Tool (UTY-AMGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type (UTR-YTMA).

VRF network systems can be supported
4

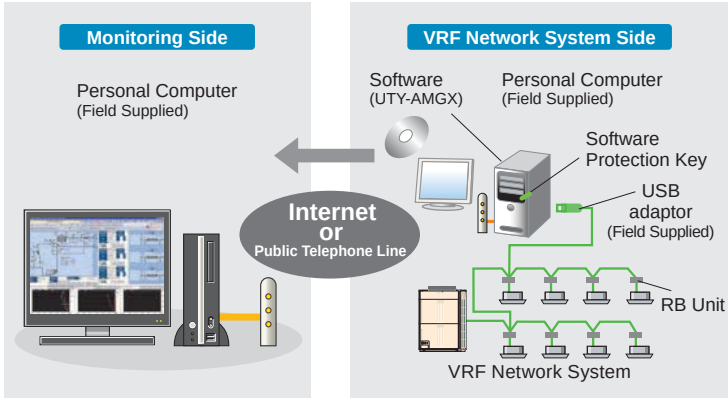
Max. Monitor
400
Outdoor units

Max. Monitor and control
1,600
Indoor unit can be monitored

Web Monitoring System

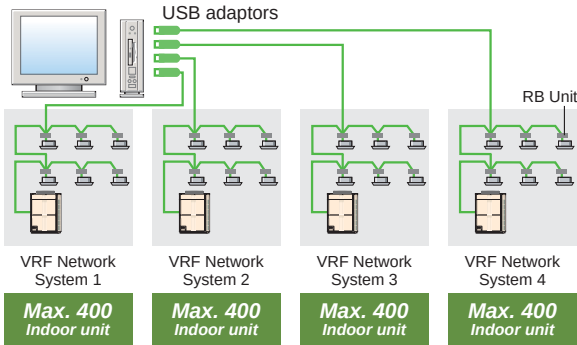


System components



Support 4 VRF network systems

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



COMPARISON TABLE

No.	Item	Service Tool UTY-ASGX	Web Monitoring Tool UTY-AMGX	
			VRF network system Side	Monitoring Side
1	Interchangeability of equipment	●	●	●
2	Indication of equipment list	●	●	●
3	Operation control	●	●	—
4	Indication of refrigerant circuit diagram	●	●	●
5	Commissioning tool	●	●	—
6	Monitoring of equipment information	●	●	●
7	Monitoring of operating condition	●	●	●
8	Monitoring of sensor data	●	●	●
9	Storage and CSV output of operating history (sensor data)	●	●	●
10	Indication of trend graph	●	●	●
11	Printing of trend graph	●	●	●
12	Monitoring and screen display of abnormalities	●	●	●
13	E-mail automatic transmission of abnormalities	—	● ^{*1}	—
14	Setting for user level	—	●	—
15	Network Topology Analyzer *	●	●	—
16	Remote Setting *	●	●	—
17	System Time Setting *	●	●	—
18	Central Release *	●	●	—
19	Model Name Writer *	●	—	—
20	Error Memory Reader *	●	—	—
21	Time Guard Information *	●	●	●

*: Supported by Ver. 1.1 or later
*1: it is available only during a connection to the Internet.

Personal computer system requirements

	UTY-AMGX
Operating system	• Microsoft® Windows Vista® Home Premium (32-bit) SP2, Windows Vista® Business (32-bit) SP2 • Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8 Pro (32-bit or 64-bit) • Microsoft® Windows® 8.1 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 [32-bit], and Windows® 8.1 [32-bit]) • 2 GB or more (for Windows® 7 [64-bit], Windows® 8 [64-bit], and Windows® 8.1 [64-bit])
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) or Modem (for getting access to the Internet using Public Telephone Line) • USB ports (Maximum of 5 ports) - 1 USB port is required for 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	Internet Explorer® 8, 9, 10 or 11 / Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive

<Packing list>

Name and shape	Quantity	Application
DVD-ROM	1	Includes the software and manuals
Wibu Key (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC. These products runs only on a PC with WibuKey.

•Personal computer that satisfies the following system requirements
•Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)



EFFECTIVE HEAT EXCHANGE AND SIMULTANEOUS FRESH AIR VENTILATION



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

ENERGY RECOVERY VENTILATOR

OUTDOOR AIR UNIT

DX-KIT FOR AIRHANDLING APPLICATIONS

Energy Recovery Ventilator

- Models
- UTZ-BD025B
 - UTZ-BD035B
 - UTZ-BD050B
 - UTZ-BD080B
 - UTZ-BD100B

Energy recovery ventilator unit offers maximum comfort and greater energy savings.



Heat exchange ventilation and normal ventilation

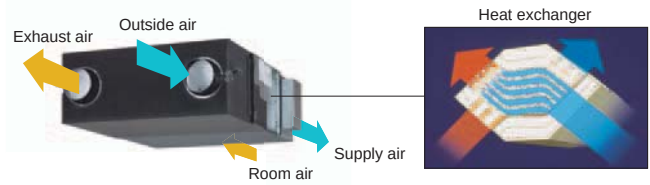
Heat exchange ventilation

When a room is cooled or heated, the exhausted cooling / heating energy is recovered by 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



Specifications

Rated flow rate				250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h
Model No.				UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
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 Heat pump	Extra high / High / Low	%	70 / 70 / 72	69 / 69 / 73	67 / 67 / 69	71 / 71 / 74	71 / 71 / 76
NORMAL VENTILATION	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	37.5 / 35.5 / 32.5	37.5 / 37 / 34.5	38.5 / 37.5 / 34.5
	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
	Sound pressure level	Extra high / High / Low	dB*	31.5 / 30.5 / 26.5	33 / 31 / 25.5	38.5 / 38 / 32.5	37.5 / 37 / 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	83
Outlet duct diameter				mm	150	150	200	250
Operation range				°C	-10 ~ 40	-10 ~ 40	-10 ~ 40	-10 ~ 40
Maximum humidity				%	85	85	85	85

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

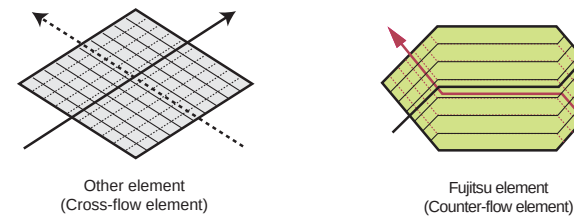
Energy efficiency and ecology

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

20%
Energy saving

Features of 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.



Quiet operation

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

Extended range of an external static pressure

An external static pressure is improved by adopting a powerful fan motor. This allows for application in a wide variety building.

Slim shape and easier installation

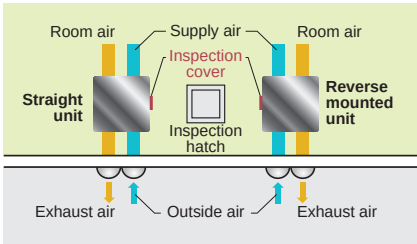
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



Reverse mountable direct air supply / exhaust system

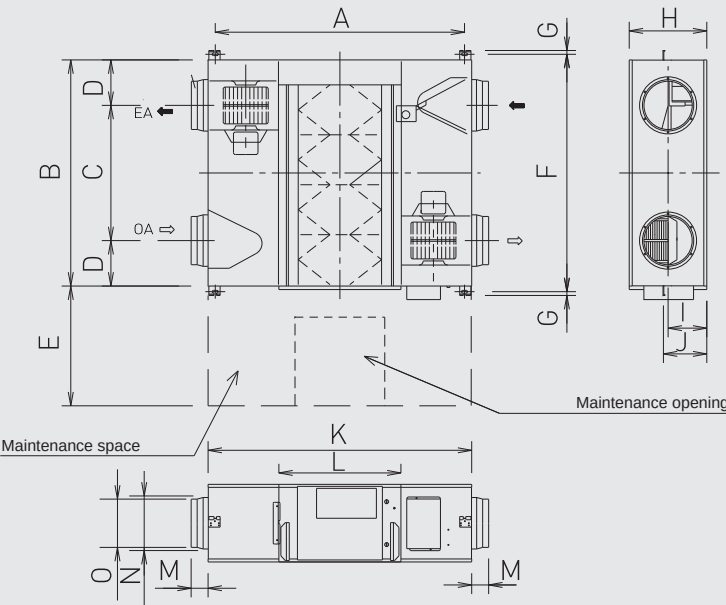
Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in 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.



Dimensions (Unit : mm)

Models: UTZ-BD025B / UTZ-BD035B / UTZ-BD050B / UTZ-BD080B / UTZ-BD100B



	UTZ-BD025B	UTZ-BD035B	UTZ-BD050B	UTZ-BD080B	UTZ-BD100B
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	127	85	85
N	219	162	210	258	258
O	144	144	194	242	242

Outdoor Air Unit

Production by order

Models
ARXH054GTAH
ARXH072GTAH
ARXH096GTAH

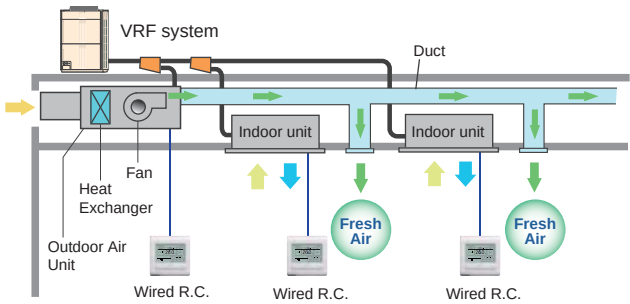
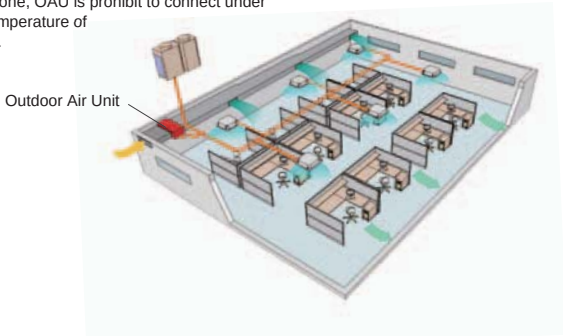
The heat pump method efficiently processes the outdoor air for cooling and heating and supplies 100% fresh air into a room.



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

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

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



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

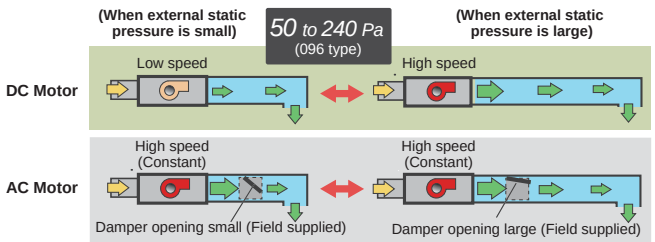
Specifications

Rated flow rate			1000 m³/h	1500 m³/h	2000 m³/h
Model No.			ARXH054GTAH	ARXH072GTAH	ARXH096GTAH
Power source			230/1/50		
Capacity	Cooling	kW	14.0	22.4	28.0
	Heating		8.9	13.9	17.4
Input Power	Cooling / Heating	W	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 x W x D)		mm	425×1,367×572	425×1,367×572	450×1,583×700
Weight		kg	48	55	71
Connection Pipe Diameter (Small / Large)		mm	Ø9.52/Ø19.05	Ø12.70/Ø22.22	Ø12.70/Ø22.22
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 : 7.5 m Voltage : 230 [V].

High energy savings and flexible duct design by using DC motor

- Greatly reduces electricity consumption by adopting permanent magnet compared to when using an AC motor.
- Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.
- Static pressure can be set easily using wired remote controller.



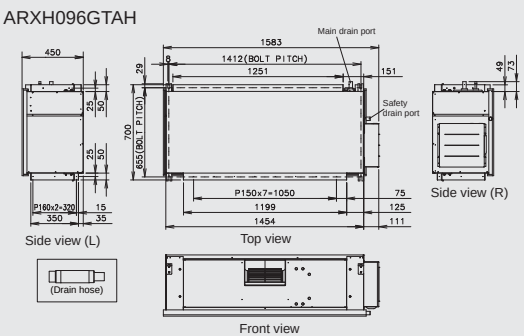
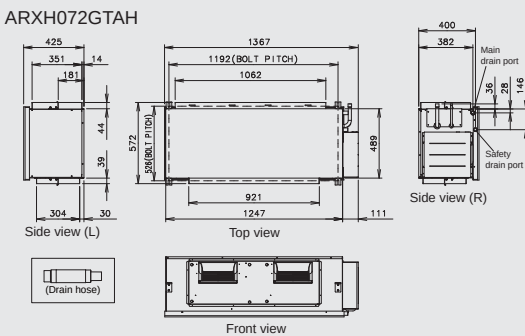
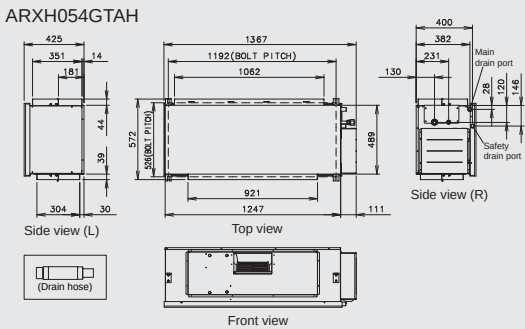
Top class compact design

- Top class lightweight compact design at just 425 mm in height, 55 kg in weight for ARXH072 type. This unit can be installed easily even at narrow space.



Dimensions (Unit : mm)

Models: ARXH054GTAH / ARXH072GTAH / ARXH096GTAH



Various Controller

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

Individual Controller



Central Controller



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

DX-Kit for air handling applications

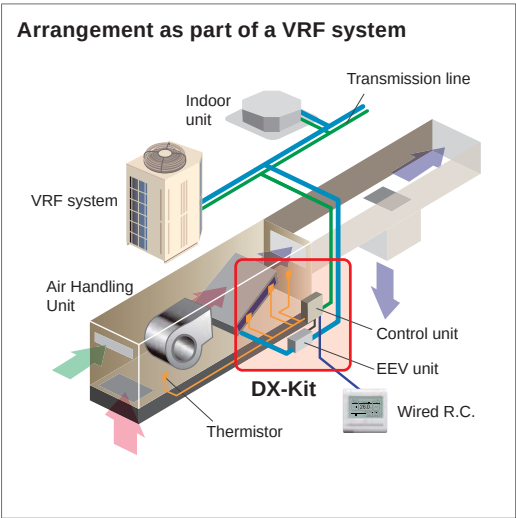
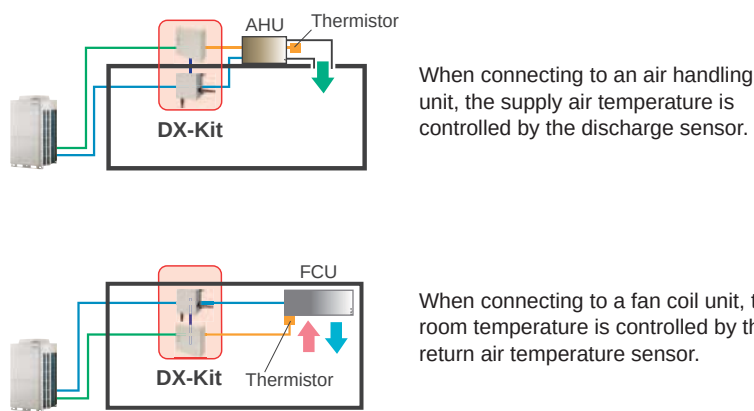
Models
Control unit
UTY-VDGX

EEV unit
UTP-VX30A
UTP-VX60A
UTP-VX90A

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

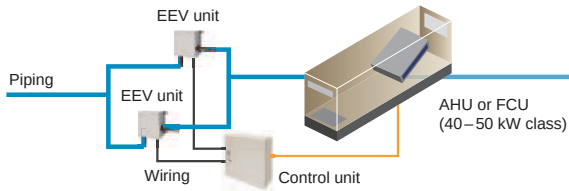


Multiple temperature sensors optimally control the air handling unit and fan coil unit.



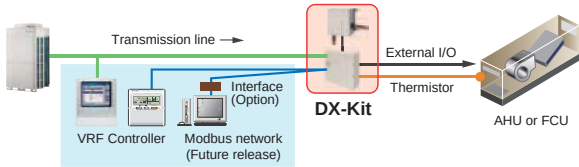
Supports a wide range of capacity classes

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

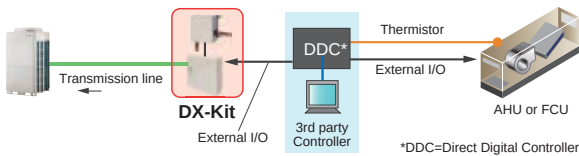


A variety of controls to match the application

- Central control using our VRF controllers or central management controllers



- Central control from external controllers



Functions Summary

Inputs

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

Outputs

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

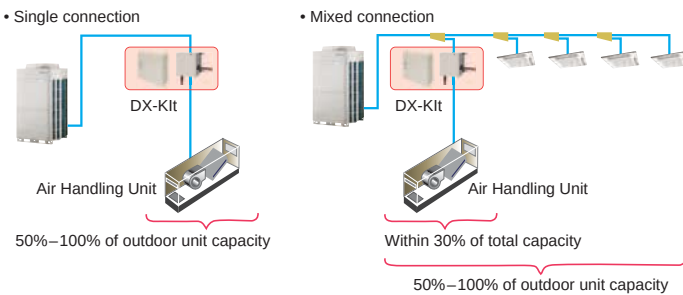
Modbus Control

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

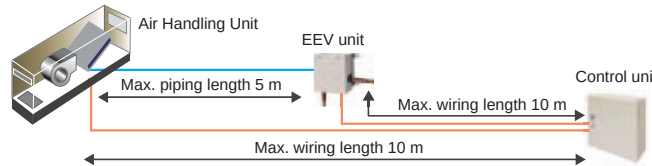
Installation Limitation

- Connectable VRF series : J-IIS, J-II, V-II, VR-II
- Connectable DX-Kit system capacity range : 50 to 100% of the outdoor unit capacity
- Connectable DX-Kit system capacity range with indoor units : 30% or less of the outdoor unit capacity
- Max. wiring length from control unit : 10 m
- Max. piping length between EEV unit and indoor unit : 5 m
- Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.

Connectable capacity



Piping and wiring length



Specifications

EEV unit		UTP-VX30A			UTP-VX60A			UTP-VX90A		UTP-VX90A×2		
Power source		V/∅/Hz	230 / 1 / 50									
Connectable capacity class		kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0
Capacity	Cooling	kW	5.6 (5.1-5.9)	6.3 (6.0-7.1)	8 (7.2-9.0)	10 (9.1-11.1)	12.5 (11.2-13.2)	14 (13.3-18.0)	22.4 (18.1-23.7)	25 (23.8-28.0)	40 (28.1-44.7)	50.4 (44.8-50.4)
	Heating		6.3 (5.7-6.7)	7.1 (6.8-8.0)	9 (8.1-10.0)	11.2 (10.1-12.4)	14 (12.5-15.0)	16 (15.1-20.0)	25 (20.1-26.5)	28 (26.6-31.5)	45 (31.6-49.9)	56.5 (50.0-56.5)
Airflow Rate(Reference value)		m³/h	1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000
Dimensions (H×W×D)		mm	160 × 220 × 90									(160 × 220 × 90) × 2
Weight		kg	2									2 × 2
Connection pipe diameter(Liquid)		mm	Ø9.52						Ø12.70			

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

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



Auto Louver Grille Kit (option)

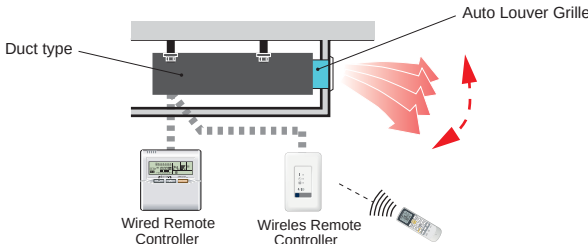
Models
UTD-GXSA-W
UTD-GXSB-W
UTD-GXSC-W

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

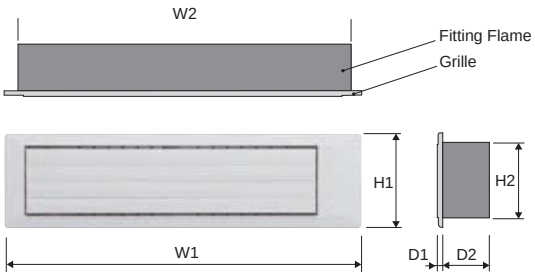


Flexible Control

- **Operation with indoor unit**
Auto Louver can be operated by synchronizing remote controller of indoor unit.
- **UP and Down auto swing**
 - Auto airflow direction and auto swing
 - 4 steps selectable
- **Auto-closing louver**
When operation of indoor unit is stopped, the louver will automatically close.



Dimensions



Unit: mm						
Model Name	W1	W2	H1	H2	D1	D2
UTD-GXSA-W	683	645				
UTD-GXSB-W	883	845	180	148	9	84
UTD-GXSC-W	1,083	1,045				

Specifications

Model name			UTD-GXSA-W	UTD-GXSB-W	UTD-GXSC-W
Applicable Indoor Unit			ARXD04/07/09/12/14GALH	ARXD18GALH	ARXD24GALH
Power Supply			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)		
Net Dimension (H x W x D)		mm (inch)	180x683x(84+9) [7-3/32x26-7/8x(3-5/16+11/32)]	180x883x(84+9) [7-3/32x34-3/4x(3-5/16+11/32)]	180x1083x(84+9) [7-3/32x42-5/8x(3-5/16+11/32)]
Weight	Net	kg (lb.)	2.0 (4.4)	2.5 (5.6)	3.0 (6.7)
	Gross	kg (lb.)	3.0 (6.7)	3.5 (7.8)	4.0 (8.9)
Color			White		
Louver Motor			Stepping Motor		
Accessories			Fitting Flame, etc.		
Operation range	Cooling	°C (°F)	18 to 32 (64 to 90)		
		% RH	80% or less		
	Heating	°C (°F)	16 to 30 (60 to 88)		

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

Optional Parts

Connection Units

Separation Tube			
Gas Pipe  UTP-AX054A	Gas Pipe  UTP-AX090A	Gas Pipe  UTP-AX180A	Gas Pipe  UTP-AX567A
Liquid Pipe  UTP-AX054A	Liquid Pipe  UTP-AX090A	Liquid Pipe  UTP-AX180A	Liquid Pipe  UTP-AX567A
Suction Gas Pipe  UTP-BX090A	Suction Gas Pipe  UTP-BX180A	Suction Gas Pipe  UTP-BX567A	For DX-Kit  UTP-LX180A
Discharge Gas Pipe  UTP-BX090A	Discharge Gas Pipe  UTP-BX180A	Discharge Gas Pipe  UTP-BX567A	
Liquid Pipe  UTP-BX090A	Liquid Pipe  UTP-BX180A	Liquid Pipe  UTP-BX567A	

Header	Outdoor Unit Branch Kit	
Gas Pipe  UTR-H0906L / UTR-H1806L	Gas Pipe  UTR-H0908L / UTR-H1808L	Gas Pipe  UTP-CX567A
Liquid Pipe  UTR-H0906L / UTR-H1806L	Liquid Pipe  UTR-H0908L / UTR-H1808L	Liquid Pipe  UTP-CX567A
Suction Gas Pipe  UTP-J0906A / UTP-J1806A	Suction Gas Pipe  UTP-J0908A / UTP-J1808A	Suction Gas Pipe  UTP-DX567A
Discharge Gas Pipe  UTP-J0906A / UTP-J1806A	Discharge Gas Pipe  UTP-J0908A / UTP-J1808A	Discharge Gas Pipe  UTP-DX567A
Liquid Pipe  UTP-J0906A / UTP-J1806A	Liquid Pipe  UTP-J0908A / UTP-J1808A	Liquid Pipe  UTP-DX567A

EV Kit	RB Unit	
For Compact Wall Mounted type  Model code ≤ 09 : UTR-EV09XB Model code ≥ 12 : UTR-EV14XB	Single type  UTP-RX01AH / UTP-RX01BH / UTP-RX01CH	Multi type  UTP-RX04BH

Specifications

Separation Tube				
Model name	UTP-AX054A (for J-IIS only)	UTP-AX090A	UTP-AX180A	UTP-AX567A
Total cooling capacity of indoor unit (kW)	19.6 or less	28.0 or less	28.1 to 56.0	56.1 or more
Model name	UTP-BX090A		UTP-BX180A	UTP-BX567A
Total cooling capacity of indoor unit (kW)	28.0 or less		28.1 to 56.0	56.1 or more

Model name	3-6 Branches	UTR-H0906L	UTR-H1806L
	3-8 Branches	UTR-H0908L	UTR-H1808L
Total cooling capacity of indoor unit (kW)		28.0 or less	28.1 to 56.0
Model name	3-6 Branches	UTP-J0906A	UTP-J1806A
	3-8 Branches	UTP-J0908A	UTP-J1808A
Total cooling capacity of indoor unit (kW)		28.0 or less	28.1 to 56.0

Outdoor unit Branch kit			
Model name	UTP-CX567A (for V-II)		UTP-DX567A (for VR-II)
Number of Outdoor unit	2 outdoor units	1	
	3 outdoor units	2	

EV Kit		
Model name	UTR-EV09XB	UTR-EV14XB
Application Model	ASYE04GACH ASYE07GACH ASYE09GACH	ASYE12GACH ASYE14GACH

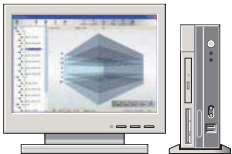
RB Unit		Single type			Multi type
Type		UTP-RX01AH	UTP-RX01BH	UTP-RX01CH	UTP-RX04BH
Power source		Single phase 230V, 50Hz			
Input power	W	17	24	31	96
Number of branches		1	1	1	4
Maximum capacity of connectable indoor units(Q)	kW	Q ≤ 8.0	Q ≤ 18.0	Q ≤ 28.0	Q ≤ 56.0 *1
Maximum capacity of connectable indoor 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			260×658×428

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

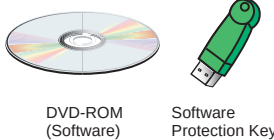
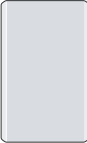
Optional Parts

Controllers

For Individual Control		
Wired Remote Controller (Touch Panel) UTY-RNRY 	Wired Remote Controller UTY-RLRY 	Simple Remote Controller UTY-RSKY With operation mode 
Simple Remote Controller UTY-RHKY Without operation mode 	Wireless Remote Controller UTY-LNHY 	IR Receiver Unit UTB-YWC For All Duct types except Large Airflow Duct 
IR Receiver Unit UTY-LRHBY1 For Cassette type 		

For Centralized Control		
Group Remote Controller UTY-CGGY 	Central Remote Controller UTY-DCGY 	Touch Panel Controller UTY-DTGY 
System Controller Lite Software UTY-ALGX 	System Controller Software UTY-APGX 	

Convertors / Adaptors

For External device		
BACnet® Gateway Software UTY-ABGX 	Network Converter for LONWORKS® UTY-VLGX 	KNX® Interface FJ-RC-KNX-1i 
MODBUS® Interface FJ-RC-MBS-1 	Wireless LAN Interface FJ-RC-WIFI-1 	External Switch Controller UTY-TEKX 

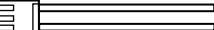
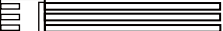
For System expansion	
Network Converter UTY-VGGXZ1 	Signal Amplifier UTY-VSGXZ1 

Panels

For Cassette type	
Cassette Grille UTG-UFYC-W For Compact Cassette type 	Cassette Grille UTG-UGYA-W For Cassette type 

Optional Parts

Others

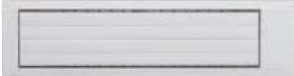
Communication system: External Connect Kit					
For Indoor unit			For Outdoor unit		
UTY-XWZXZ7		UTY-XWZXZD		UTY-XWZXZ6	
UTY-XWZXZB		UTY-XWZXZE		UTY-XWZXZ9	
UTY-XWZXZC				UTY-XWZXZF	
For RB unit		For Central Remote Controller		For Touch Panel Controller	
UTY-XWZXZ6		UTY-XWZXZ7		UTY-XWZXZA	
UTY-XWZXZB		UTY-XWZXZ8			
		UTY-XWZXZA			

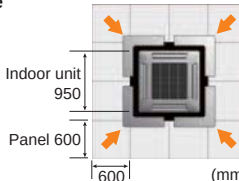
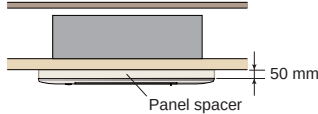
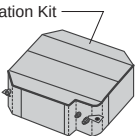
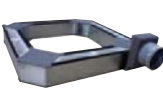
Function list

		Indoor unit	Outdoor unit	Controller		Other
				Central Remote Controller	Touch Panel Controller	RB Unit
Input	Operation / Stop	● UTY-XWZXZD ○ UTY-XWZXZB	—	—	—	—
	All On / All Off	—	—	● UTY-XWZXZ7 ○ UTY-XWZXZ8	—	—
	Batch Stop	—	● UTY-XWZXZ6	—	—	—
	Forced Stop	● UTY-XWZXZD ○ UTY-XWZXZB	—	—	—	—
	Emergency Stop	● UTY-XWZXZD ○ UTY-XWZXZB	● UTY-XWZXZ6	● UTY-XWZXZ7 ○ UTY-XWZXZ8	—	—
	Forced Thermostat off	● UTY-XWZXZE ○ UTY-XWZXZ7	—	—	—	—
	Low Noise Mode Operation	—	● UTY-XWZXZ6	—	—	—
	Cooling / Heating Priority	—	● UTY-XWZXZ6 ^{*1}	—	—	● UTY-XWZXZ6 ○ UTY-XWZXZB
	"Outdoor Unit Operation Peak Control"	—	● UTY-XWZXZ6	—	—	—
Output	"Power Usage Information from Electricity Meter"	—	● UTY-XWZXZF	—	—	—
	Operation Status	● UTY-XWZXZC	○ UTY-XWZXZ6	○ UTY-XWZXZA	○ UTY-XWZXZA	—
	Error Status	● UTY-XWZXZC	○ UTY-XWZXZ6	○ UTY-XWZXZA	○ UTY-XWZXZA	—
	Indoor Unit Fun Operation Status	● UTY-XWZXZC	—	—	—	—
	Auxiliary Heater Output	● UTY-XWZXZC ^{*2}	—	—	—	—
	Base Heater	—	● UTY-XWZXZ9	—	—	—

*1. Heat Pump type only *2. Duct type only

● : Dry Contact ○ : Apply Voltage

For Duct type			
Flange (Round) UTD-RF204 For Medium Static Pressure Duct type / Ceiling type		Flange (Square) UTD-SF045T For Medium Static Pressure Duct type	
		Remote Sensor Unit UTY-XSZX For All Duct type New amenity space can be offered by installing the Remote sensor.	
Long-Life Filter UTD-LF25NA For Medium Static Pressure Duct type		Auto Louver Grille Kit UTD-GXSA-W (for ARXD04/07/09/12/14GALH) UTD-GXSB-W (for ARXD18GALH) UTD-GXSC-W (for ARXD24GALH) For Slim Duct type	
	UTD-LF60KA For High Static Pressure Duct type		
		Drain Pump Unit UTZ-PX1BBA For Low Static Pressure Duct type UTZ-PX1NBA For Medium Static Pressure Duct type	

For Cassette type		
Wide Panel UTG-AGYA-W For Cassette type		Panel Spacer UTG-BGYA-W For Cassette type
		
		Insulation Kit for High Humidity UTZ-KXGA For Cassette type UTZ-KXGB For Slim Cassette type UTZ-KXGC For Compact Cassette type
		
Fresh Air Intake Kit UTZ-VXAA For Compact Cassette type		Air Outlet Shutter Plate UTR-YDZB For Compact Cassette type Shuts the air outlet when only using as 3 blow out.
	UTZ-VXGA For Cassette type	
		Air Outlet Shutter Plate UTR-YDZC For Cassette type Shuts the air outlet when only using as 3 blow out.
		

For Ceiling type

Drain Pump Unit UTR-DPB24T For Ceiling type	
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Applications

There are many applications for Airstage VRF systems including such markets as education, healthcare,hospitality, utilities, office buildings, apartment buildings, condominiums, and restaurants.

Note: VRF Heat Recovery system provides simultaneous Heating and Cooling. System operates both Heating mode and Cooling mode.

Medical and Healthcare Facilities



VRF gives each patient individual control of their room temperature. Central control ensures that air conditioning is only delivered to rooms that are occupied.

INDIVIDUAL CONTROL

VRF gives each patient or each room individual control of their room temperature.

CLEAN AIR

VRF systems can use ductless indoor units reducing the time and expense of maintaining a HVAC system and eliminating the risk of duct-borne molds and bacteria.

CENTRAL CONTROL

Powerful central control ensures that heating and cooling are delivered to rooms that are occupied. This provides enormous savings for facilities with revolving occupancy.

MAINTENANCE

Since each refrigerant circuit has the ability to operate independently, a properly designed VRF system can add a layer of security to a HVAC system. If an individual unit needs to be shut down for repairs, the rest of the system can operate normally.

FRESH AIR

VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the occupants. VRF provides the most comfortable environment for all occupants.

Educational and Religious Facilities



In a school, an investment in VRF is an investment in your community. VRF is more efficient than conventional systems, providing financial savings to the school for many years. Also, a quiet VRF system creates a much better learning environment for students.

HEALTHIER FACILITY

VRF systems can be integrated with fresh air systems to ensure that air quality meets the needs of the teachers and students.

CENTRAL CONTROL

Powerful central control can monitor and control individual schools, or an entire college campus, from a single location.

ZONING

Save energy by heating and cooling the classrooms that are occupied. Set temperature can pre-programmed to meet the energy budget for the school district.

COMFORT

VRF helps achieve a healthier, quieter, more comfortable and productive learning environment.

Applications

Multi-Tenant Dwellings



VRF improves the quality of multi-tenant buildings while reducing tenant complaints. High quality VRF systems let owners save on energy costs and reduced maintenance costs. With VRF, each tenant has individual control over the temperature setting for the comfort of their home.

- QUALITY**
By delivering quiet, efficient heating and cooling, VRF improves the quality of multitenant buildings and reduces tenant complaints.
- ENERGY SAVINGS**
Efficient VRF systems reduce the total energy costs for buildings over most other options. High quality systems reduce maintenance and service costs.
- INDIVIDUAL BILLING**
Using the Energy Charge Apportionment feature, landlords can easily bill each tenant for the percentage of total energy the individual tenant consumes.

- INDIVIDUAL COMFORT**
With VRF, each tenant can have their own controller to set their room temperature for their maximum comfort.
- CONVENIENT CENTRAL CONTROL**
Landlord can monitor and control all indoor units from a central location. Landlord can even troubleshoot or solve tenant complaints remotely.
- QUIET**
Indoor units ensures a quiet, comfortable living environment for all tenants.

Office Buildings and Retail Spaces



VRF provides a comfortable work environment for all employees. Zoning ensures that energy is only used to cool/heat occupied offices. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.

- QUIET**
Indoor units and outdoor units creates a pleasant work environment and reduces noise complaints.
- ZONING**
Save energy by heating and cooling occupied offices. No more hot/cold calls since each zone or tenant has individual control of the set temperature..
- CONTROL**
Powerful controls options can manage and monitor entire building from a single location.

- EASE OF INSTALLATION**
Can be installed in occupied office spaces with minimal disruption to occupants. Can even be installed without disrupting the existing HVAC system.
- FLEXIBLE**
As tenants and office configurations change, VRF system configurations can also be modified (within original design constraints) to meet the needs of new tenants.
- COMFORT**
VRF provides a comfortable work environment for all employees. Quiet indoor units and precise temperature control creates the most comfortable and productive work environment.