

Simultaneous cooling & heating operation with  
**Heat Recovery System**

Refrigerant  
**R410A**  
INVERTER

High Energy Efficiency operation  
Simple operation controller  
Easy Design & Easy Installation  
Speedy Maintenance

**AIRSTAGE™ VR-II**  
Variable Refrigerant Flow System



FUJITSU GENERAL LIMITED



# Meets the needs for simultaneous

Heat recovery system provides optimum individual comfort by

FUJITSU GENERAL's

**Heat Recovery System**

## AIRSTAGE™ VR-II



High energy efficiency operation using high efficient compressor !

0.1 Hz steps high precision inverter compressor control



Simple operation large LCD touch panel controller !

Wired remote controller with top class large LCD touch panel in the industry



New



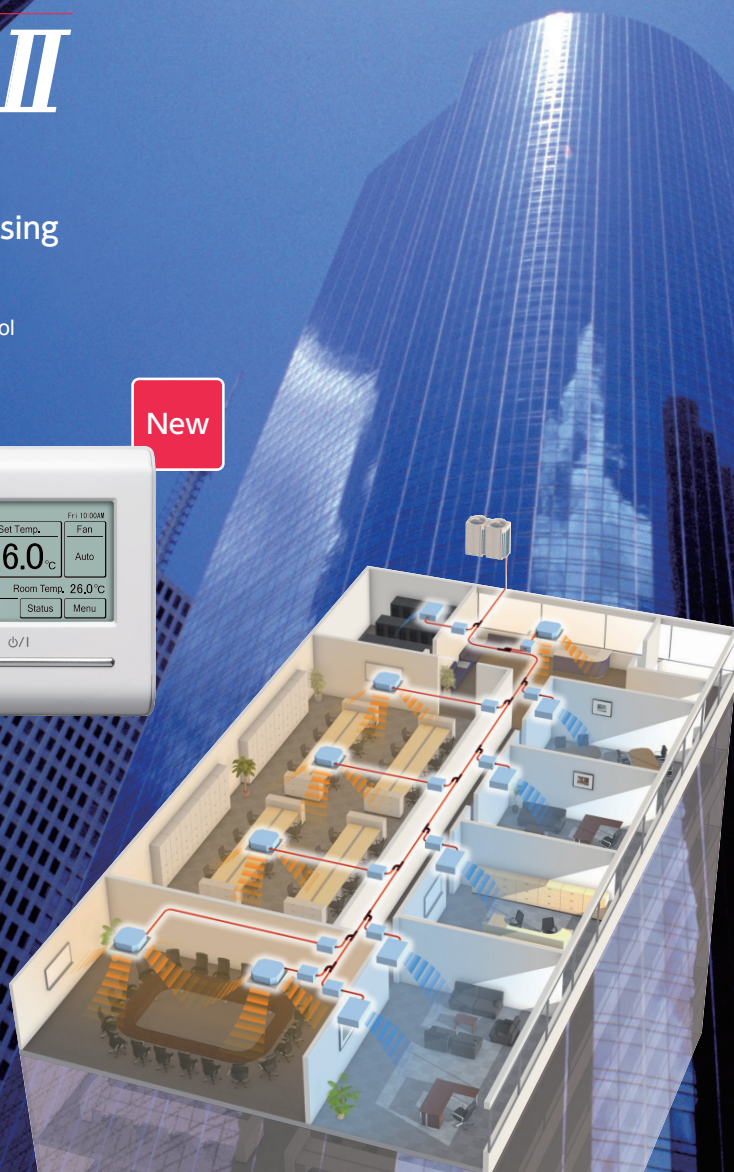
Easy design and easy installation with few restrictions !

Easy design and easy installation using flexible piping connections and RB units with few installation restrictions.



Supports speedy maintenance !

The indoor unit information can be checked using the remote controller to support speedy maintenance.



### INDOOR UNITS



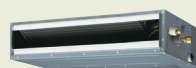
Compact Cassette



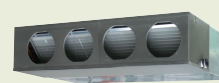
Cassette



Low Static Pressure Duct / Concealed Floor



Slim Duct / Slim Concealed Floor



Medium Static Pressure Duct



High Static Pressure Duct



Floor / Ceiling



Ceiling



Wall Mounted (EEV External)



Wall Mounted



# cooling and heating operation

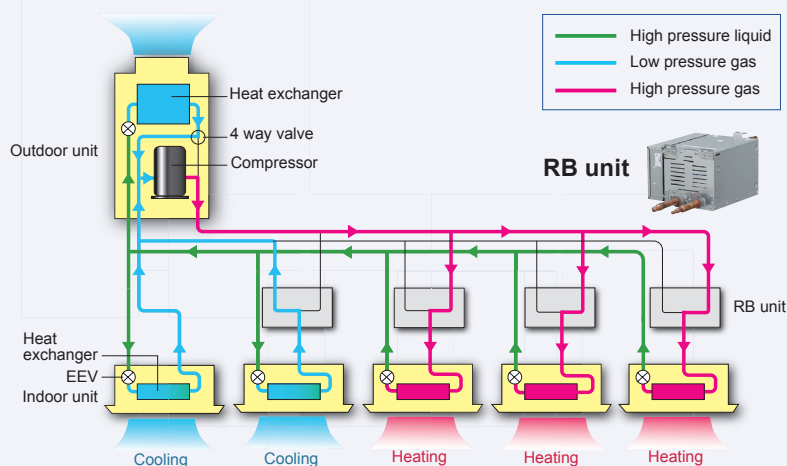
## changing over from cooling to heating

8 to 48HP

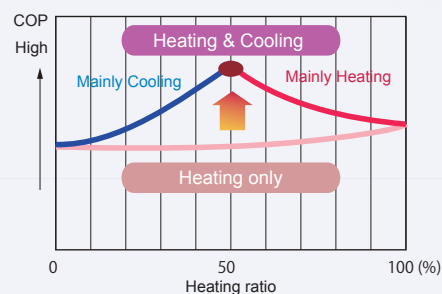


### System outline

A heat recovery system achieve high energy efficiency by drawing heat from the room to be cooled and effectively using the heat as a heat energy for rooms to be heated. Simultaneous cooling and heating operation is possible by RB unit



Simultaneously as the cooling operation and heating operation, energy saving is up.



### CONTROLLERS

#### Central Controller



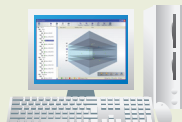
Group Remote Controller



Central Remote Controller



Touch Panel Controller



System Controller (Software)



Wireless Remote Controller



Simple Remote Controller



Wired Remote Controller (Touch Panel)



Wired Remote Controller

# High Energy Efficiency

Energy efficiency technology boosted operation efficiency



## Powerful large propeller fan

By using CFD<sup>\*1</sup> 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.



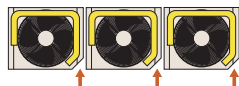
## Sine-wave DC inverter control

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



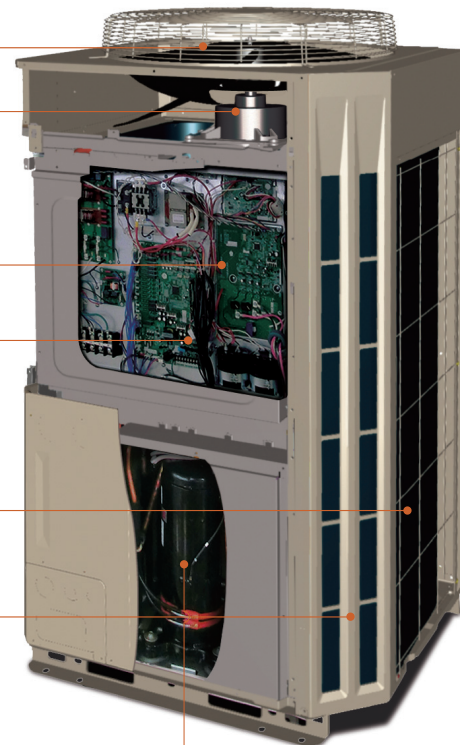
## 4-face heat exchanger

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)

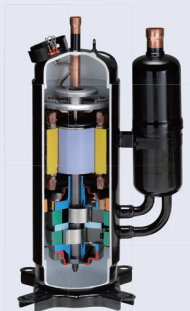
In multiple outdoor unit installations, the unique front intake design improves airflow into the Heat Exchanger.



## High efficient compressor

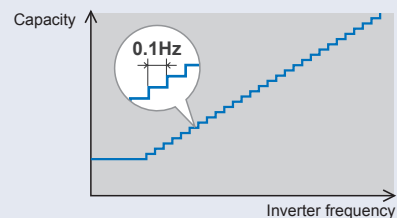
### Large capacity DC inverter compressor

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



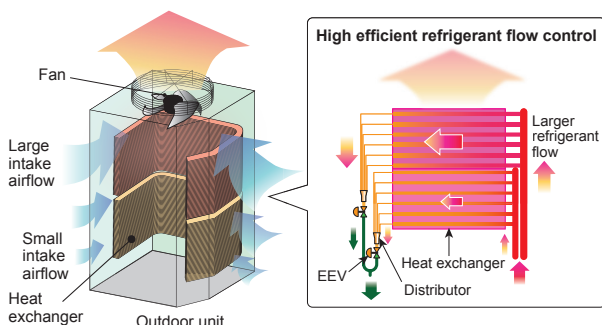
### High efficient compressor speed control

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



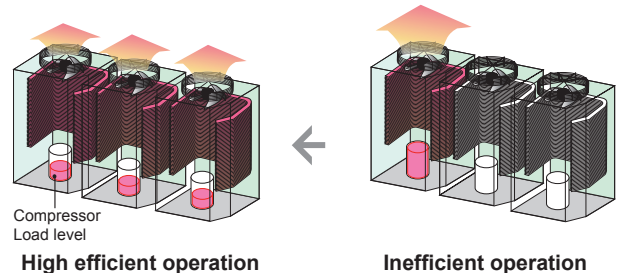
## Ideal heat exchanger path control

Heat exchanger is split into top and bottom. Heat exchange efficiency is improved by optimum heat exchanger path refrigerant control. Refrigerant is more distributed at the top side heat exchanger with a large intake air flow.



## Sophisticated operation control

When multi units are connected, sophisticated operation is performed by each compressor. Efficiency is improved by operating the rotary compressor in the good efficiency low speed range by using the heat exchangers to the full.





# Comfort & Convenience



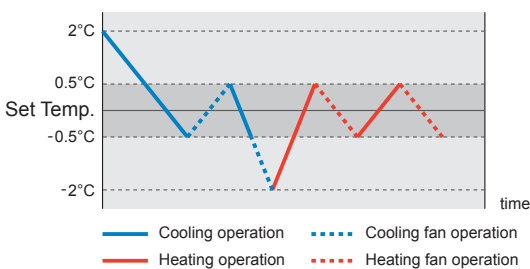
## Simple operation Wired Remote Controller (Touch panel)

Wired Remote Controller equipped touch panel method with LCD panel is not only provision of simple operation but also can be managed with multi energy saving function.

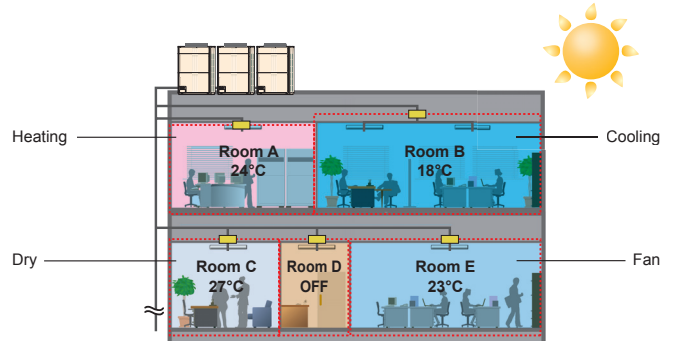


## Auto changeover function

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

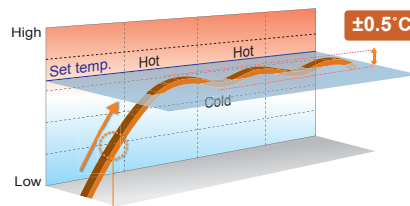


Automatic cooling/heating operation for each room is possible



## Precision refrigerant flow control

Precision 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 for a high precision comfortable temperature control within  $\pm 0.5^{\circ}\text{C}$  of set temperature.



Thermal change of the room  
\*Simulation in heating operation.

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

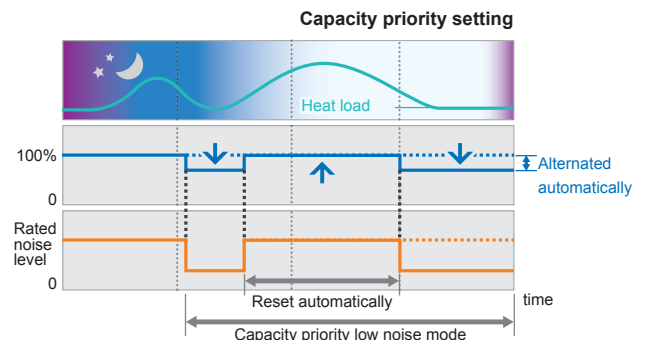
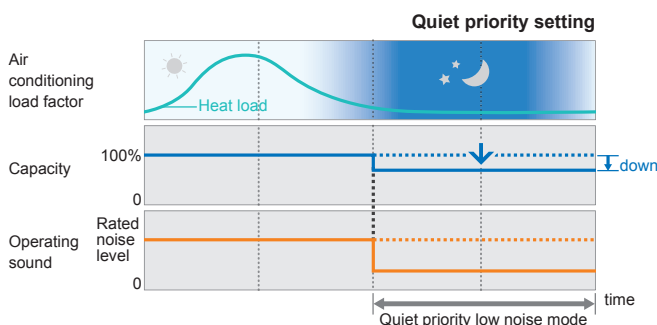
Reach the set temperature quickly

## Quiet operation

### Low noise mode

Two low noise modes can be selected automatically by quiet priority setting and capacity priority setting depending on the usage environment and outside temperature load.

Outdoor unit external input and setting from system controller are possible.



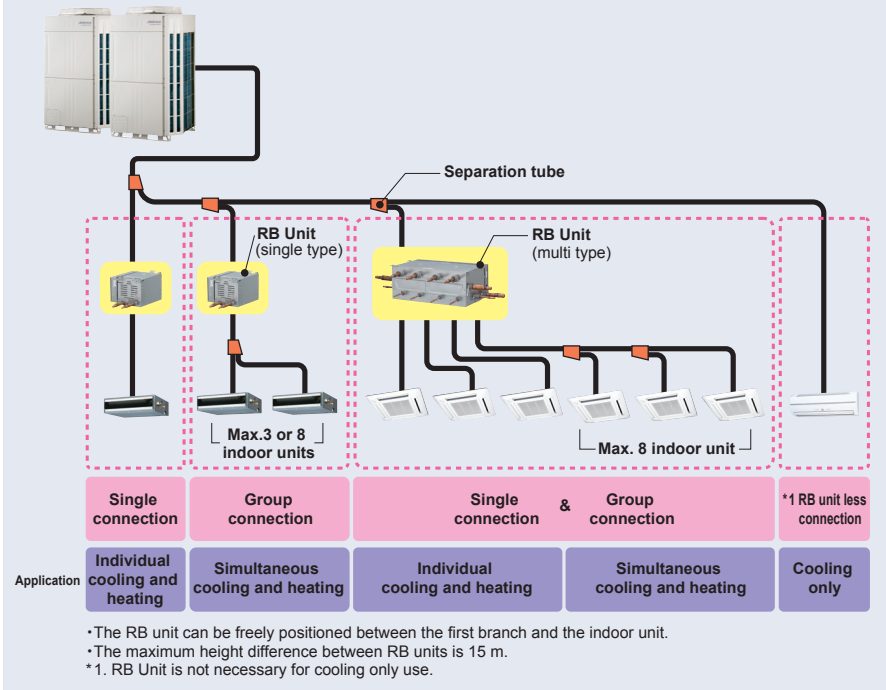


# Design Flexibility

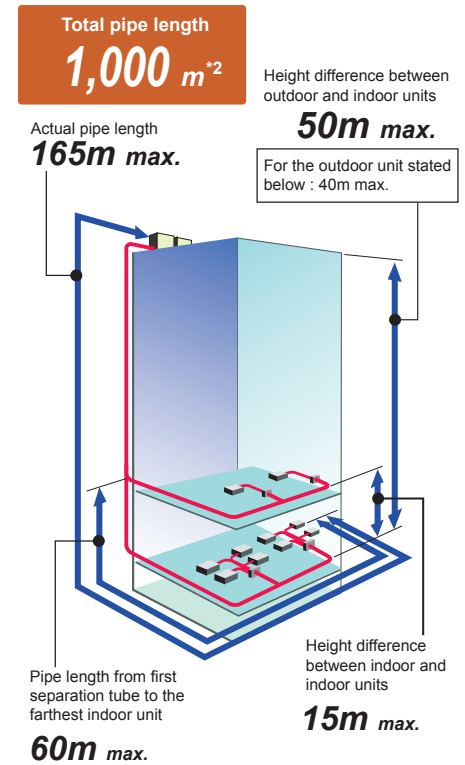


## Flexible piping connection

More flexible refrigerant piping work is possible to adjust floor layout and building structure by various RB unit connection type.



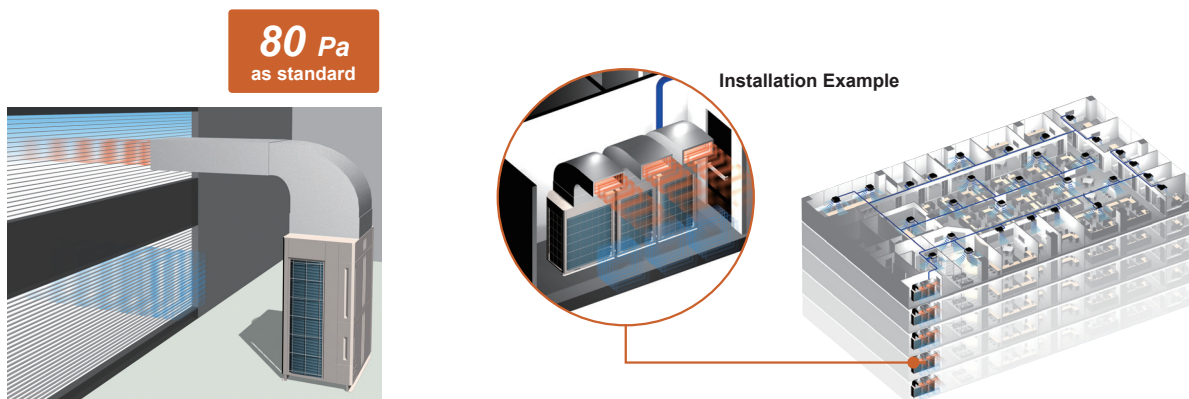
## Overall piping length 1,000m



\*2. Note : When there is 1 outdoor unit, the maximum is 700m.

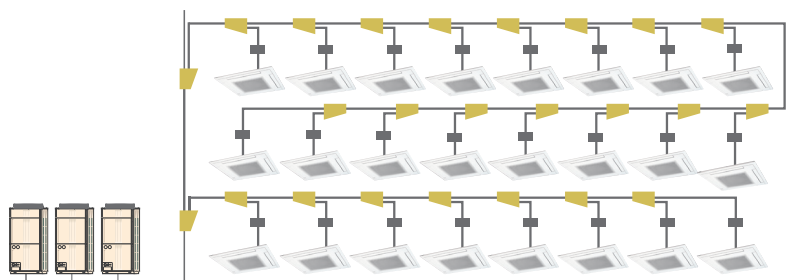
## High static pressure of 80Pa

Large diameter fan and 3 phase DC motor has been utilized allowing an external static pressure of 80Pa. This allows outdoor units to be installed within balcony, etc. on each floor in high rise buildings.



## High capacity connection

Various combination from 8HP to 48HP with 2HP increments. 12 types, 55 models of indoor units can be selected ranging from 2.2kW to 25kW in capacity. A maximum of 150% indoor unit connectable capacity.





# Easy Installation

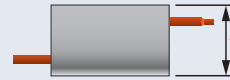


## Flexible installation of RB unit

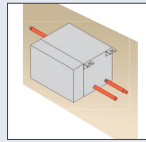


RBunit (single type)

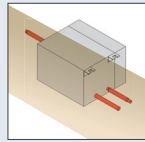
- Small & slim design saves space
- A drain pipe is not required
- The control box position can be changed to meet the installation conditions



Height  
198mm



Both-sides installation freedom of the control box



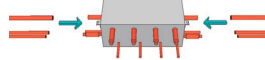
Upper-sides installation of the control box in a narrow space



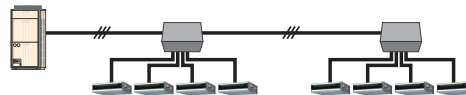
RBunit (multi type)

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

- 2-way connection



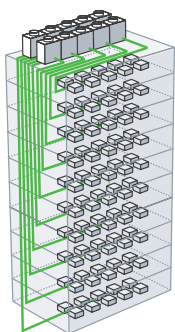
- Up to 2 units can be connected in series.



## Simple wiring work

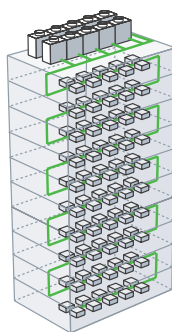
Installation is made as the communication wiring can be connected continuously to RB units and outdoor units.

Note: In a multiple refrigerant system installation, Automatic addressing sequence cannot be initiated

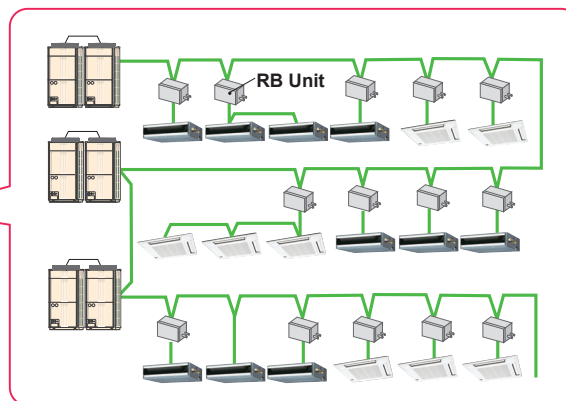


Parallel connection

or



Serial connection

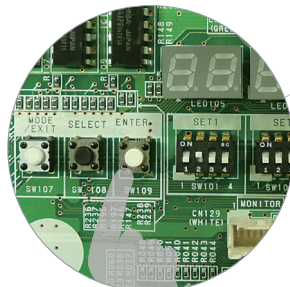


Up to maximum  
length 3,600m

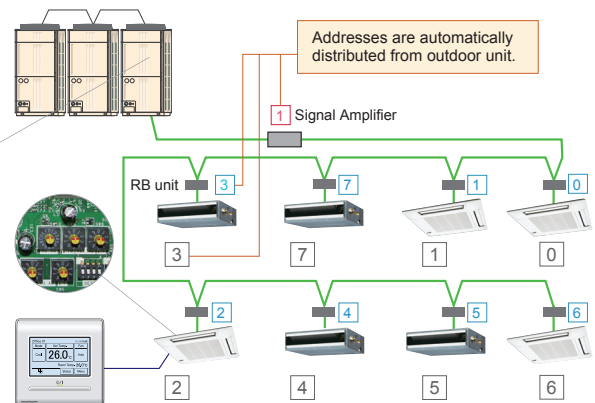
## Automatic address setting

The address of each indoor unit, RB unit, and Signal Amplifier can be automatically set by button switch of outdoor unit.

Automatic address setting is performed at outdoor unit



Press the pushbutton switch of outdoor unit.



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

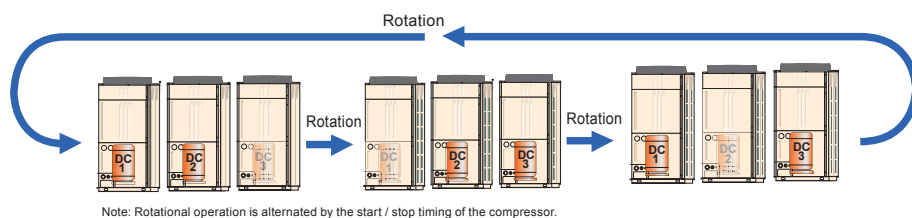


# High Reliability

## Life-extending operation

### Outdoor unit rotational operation

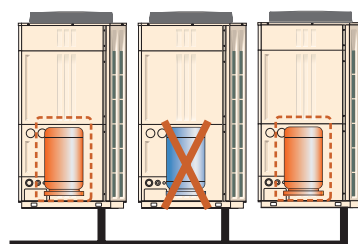
The compressor starting order is rotated so that the running time is shared.



## Backup operation

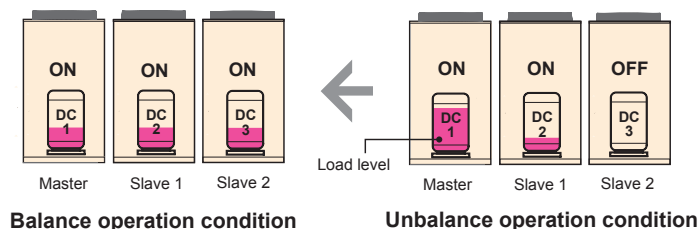
If one compressor fails, backup operation will be performed by the remaining compressors as emergency\*.

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



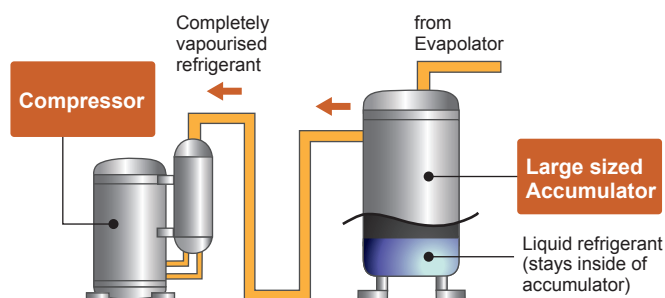
## Equalization refrigerant control

Introduced innovative compressor control logic in order to balance refrigerant mass flow rate of each outdoor unit by controlling inverter speed.



## Liquid back flow protection

By adopting a large sized accumulator, the refrigerant which is not completely vaporized is left inside the accumulator and only a stable gas is fed to the compressor.

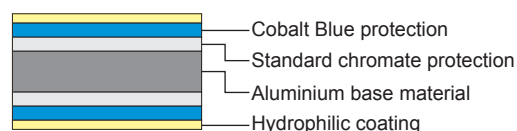


## Adoption of blue fin heat exchanger

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



### Blue fin heat exchanger





# Easy Maintenance & Service



## Various information or error status can be checked easily via Wired Remote Controller

Address, setting status, and error status can be checked.



**Wired Remote Controller (Touch panel)**

**Setting status**

Setting Status List		Page 1 / 5
On Timer	(Disable)	
- Operation Start Time	(0. Shr)	
Off Timer	(Disable)	
- Operation Stop Time	(0. Shr)	
Auto Off Timer	(Enable)	
- Operation Stop Time	(0min.)	
- Time Range		
Back		Next Page

**Indoor unit address**

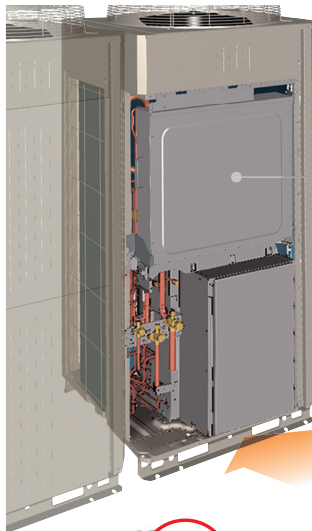
I.U. Address Verification		Page 1 / 2
No.	System-Unit	Ref.-In.
1	200-1	01-01
2	200-2	01-02
3	200-3	01-03
4	200-4	01-04
5	200-5	01-05
6	200-6	01-06
Back		Next Page Check

**Error status / Error history**

Error History					Page 1 / 3
No.	Date	Time	Address	Code	
1	2012/ 8/ 1	11:30AM	002-01	141	
2	2012/ 7/30	2:33AM	002-02	143	
3	2012/ 7/28	8:53AM	002-02	143	
4	2012/ 7/23	11:30AM	002-01	141	
5	2012/ 7/22	11:30AM	002-01	141	
6	2012/ 7/21	11:30AM	002-01	141	
Back					Next Page All

## Design for easy service and maintenance

Inspection and replacement of main parts are easier due to innovative construction and an LED operational display.

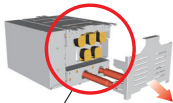


Consolidated electrical components make maintenance easy.



Movable PCB panel that allows for easier maintenance work behind the PCB.

Maintenance of electrical components, valves, and compressor parts from the front is possible.

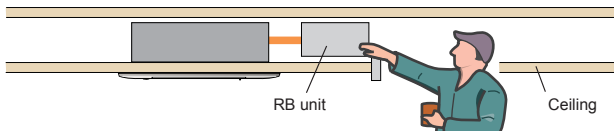


Maintenance can be performed from the side.

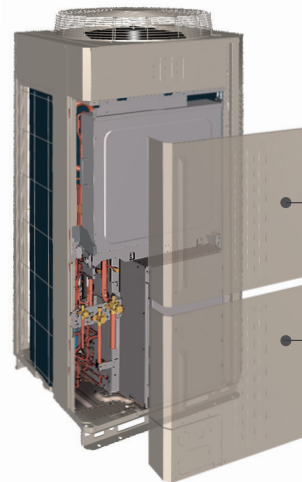
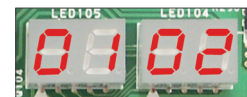


Electric box can be temporarily fixed by sliding down.

Parts can be replaced easily even at narrow space in the ceiling.

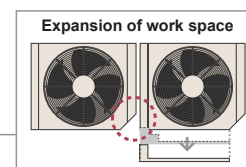
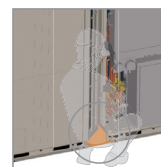


Easy-to-read 7-segment LED display which explains operational and trouble status



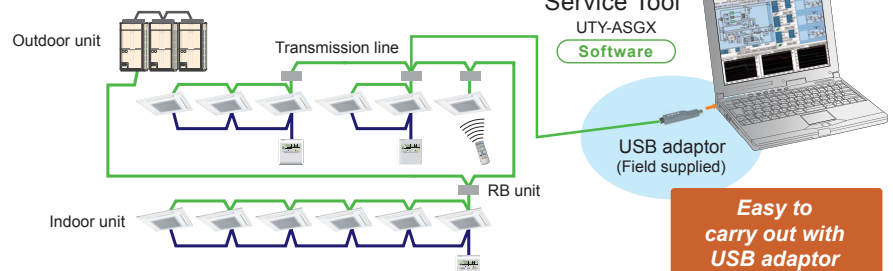
Split front panel allows for maintenance from top or bottom of the outdoor unit

### Easy to maintenance in a narrow space






## Trouble diagnosis by Service Tool

Suitable maintenance is possible by analysis of the operation data. Connection anywhere in the VRF network system is easy.






# Outdoor units lineup

## Space saving combination

Rating Capacity range	HP	8	10	12	14	16	18	20	22	24
										
Model name		AJ*A72GALH	AJ*A90GALH	AJ*108GALH	AJ*126GALH	AJ*144GALH	AJ*162GALH	AJ*180GALH	AJ*198GALH	AJ*216GALH

## Energy efficiency combination

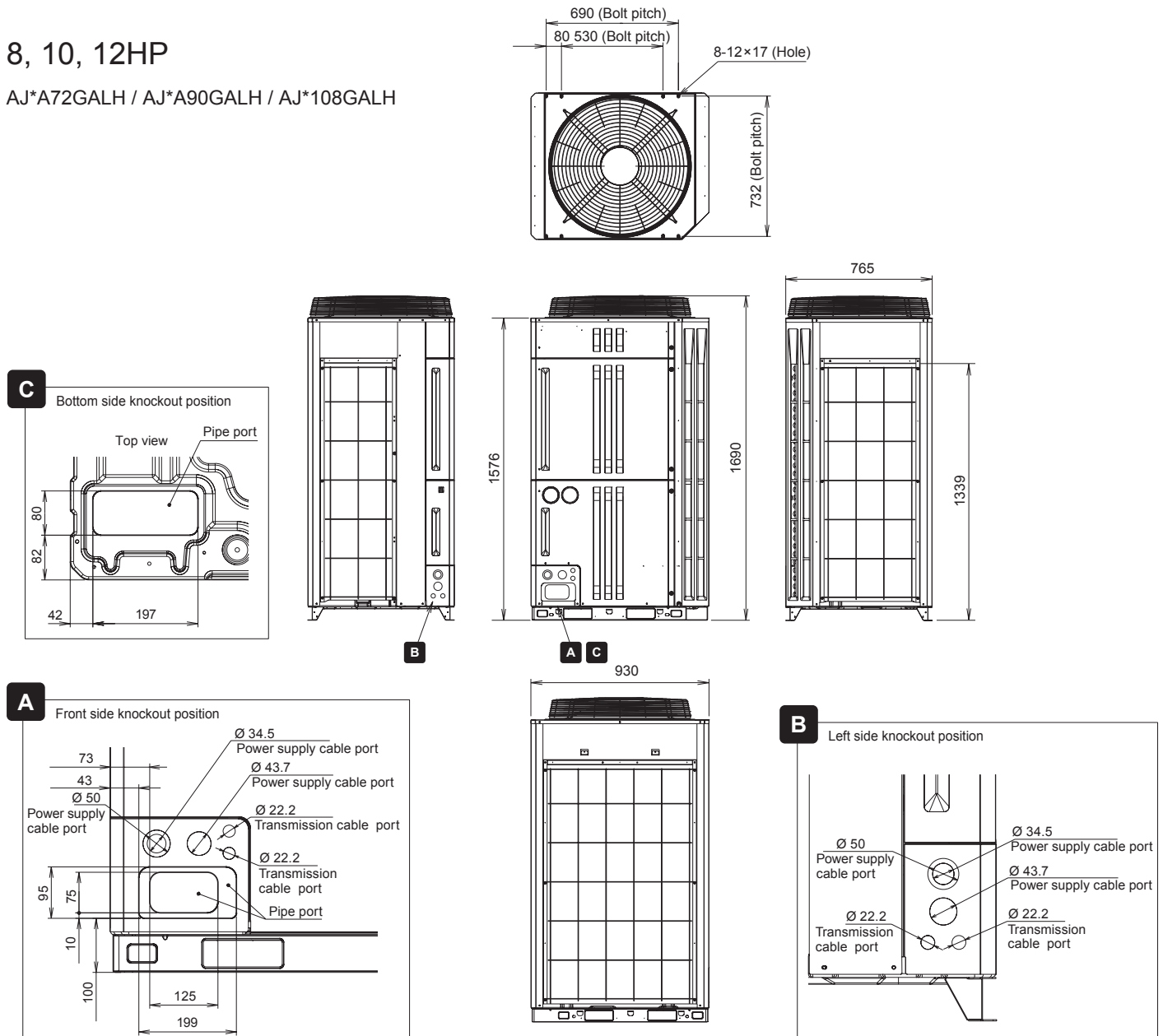
Rating Capacity range	HP	16	22	24	26	28	30
							
Model name		AJ*144GALHH	AJ*198GALHH	AJ*216GALHH	AJ*234GALHH	AJ*252GALHH	AJ*270GALHH

## Dimensions







(Unit : mm)




### 8, 10, 12HP

AJ\*A72GALH / AJ\*A90GALH / AJ\*108GALH





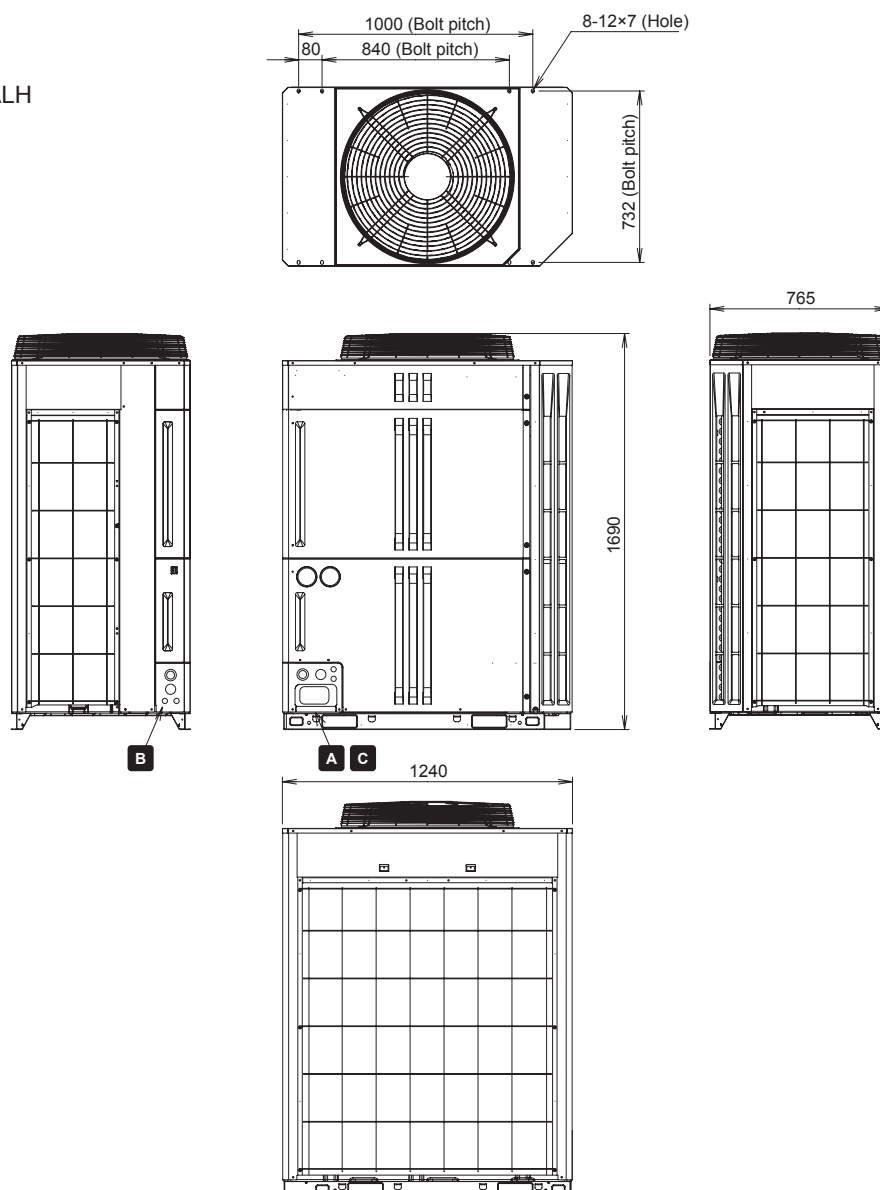
26	28	30	32	34	36	38	40	42	44	46	48
											
AJ*234GALH	AJ*252GALH	AJ*270GALH	AJ*288GALH	AJ*306GALH	AJ*324GALH	AJ*342GALH	AJ*360GALH	AJ*378GALH	AJ*396GALH	AJ*414GALH	AJ*432GALH

32	34	36	38	40	42	44
						
AJ*288GALHH	AJ*306GALHH	AJ*324GALHH	AJ*342GALHH	AJ*360GALHH	AJ*378GALHH	AJ*396GALHH

(Unit : mm)




## 14, 16HP

AJ\*126GALH / AJ\*144GALH






# Specifications

## Space saving combination

Rating Capacity range		HP	8	10	12	14	16	18	20	22	24
											
Model name			AJ*A72GALH	AJ*A90GALH	AJ*108GALH	AJ*126GALH	AJ*144GALH	AJ*162GALH	AJ*180GALH	AJ*198GALH	AJ*216GALH
Unit 1 Unit 2 Unit 3			AJ*A72GALH	AJ*A90GALH	AJ*108GALH	AJ*126GALH	AJ*144GALH	AJ*A90GALH AJ*A72GALH	AJ*A90GALH AJ*A90GALH	AJ*108GALH AJ*A90GALH	AJ*108GALH AJ*108GALH
Maximum Connectable Indoor Unit*1			15	16	17	21	24	27	30	32	35
Indoor unit connectable capacity		Cooling	kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.4-67.2	25.2-75.6	28.0-83.9	30.8-92.3
Power source			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
	Heating		25.0	31.5	37.5	45.0	50.0	56.5	63.0	69.0	75.0
Maximum external static pressure		Pa	80	80	80	80	80	80	80	80	80
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
Dimensions	Height	mm	1,690	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
	Depth	mm	765	765	765	765	765	765	765	765	765
Connection pipe diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88
	Discharge Gas		15.88	19.05	19.05	22.22	22.22	22.22	22.22	28.58	28.58
	Suction Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92
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
	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

## Energy efficiency combination

Rating Capacity range		HP	16	22	24	26	28	30
								
Model name			AJ*144GALHH	AJ*198GALHH	AJ*216GALHH	AJ*234GALHH	AJ*252GALHH	AJ*270GALHH
Unit 1 Unit 2 Unit 3			AJ*A72GALH AJ*A72GALH	AJ*126GALH AJ*A72GALH	AJ*A72GALH AJ*A72GALH AJ*A72GALH	AJ*A90GALH AJ*A72GALH AJ*A72GALH	AJ*A90GALH AJ*A90GALH AJ*A72GALH	AJ*A90GALH AJ*A90GALH AJ*A90GALH
Maximum Connectable Indoor Unit*1			24	33	36	39	42	45
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
Power source			3-phase 4 wire, 400 V, 50Hz					
Capacity	Cooling	kW	44.8	62.4	67.2	72.8	78.4	84.0
	Heating		50.0	70.0	75.0	81.5	88.0	94.5
Maximum external static pressure		Pa	80	80	80	80	80	80
Heat exchanger 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
	Width	mm	930×2	930+1,240	930×3	930×3	930×3	930×3
	Depth	mm	765	765	765	765	765	765
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	19.05
	Discharge Gas		22.22	28.58	28.58	28.58	28.58	28.58
	Suction Gas		28.58	34.92	34.92	34.92	34.92	34.92
Operation range	Cooling	°C	-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

AJ\* : AJY(FUJITSU), AJH(GENERAL)

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.

When cooling operation will be conducted at outdoor air temperature below -5°C, the outdoor unit must be installed in a position that is higher than or equal to those of indoor units.



































26	28	30	32	34	36	38	40	42	44	46	48
											
AJ*234GALH	AJ*252GALH	AJ*270GALH	AJ*288GALH	AJ*306GALH	AJ*324GALH	AJ*342GALH	AJ*360GALH	AJ*378GALH	AJ*396GALH	AJ*414GALH	AJ*432GALH
AJ*144GALH AJ*A90GALH	AJ*144GALH AJ*108GALH	AJ*144GALH AJ*126GALH	AJ*144GALH AJ*144GALH	AJ*108GALH AJ*108GALH AJ*A90GALH	AJ*108GALH AJ*108GALH AJ*108GALH	AJ*144GALH AJ*108GALH AJ*A90GALH	AJ*144GALH AJ*108GALH AJ*108GALH	AJ*144GALH AJ*144GALH AJ*A90GALH	AJ*144GALH AJ*144GALH AJ*108GALH	AJ*144GALH AJ*144GALH AJ*126GALH	AJ*144GALH AJ*144GALH AJ*144GALH
39	42	45	48	50	53	57	60	63	64	64	64
36.8-110.3	39.3-117.8	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.8	53.5-160.5	56.0-168.0	59.3-177.8	61.8-185.3	65.0-195.0	67.5-202.5
3-phase 4 wire , 400 V, 50Hz											
73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.5	123.5	130.0	135.0
81.5	87.5	95.0	100.0	106.5	112.5	119.0	125.0	131.5	137.5	145.0	150.0
80	80	80	80	80	80	80	80	80	80	80	80
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690	1,690
930×1,240	930×1,240	1,240×2	1,240×2	930×3	930×3	930×2+1,240	930×2+1,240	930×1,240×2	930×1,240×2	1,240×3	1,240×3
765	765	765	765	765	765	765	765	765	765	765	765
15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
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	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
-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
-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

32	34	36	38	40	42	44
						
AJ*288GALHH	AJ*306GALHH	AJ*324GALHH	AJ*342GALHH	AJ*360GALHH	AJ*378GALHH	AJ*396GALHH
AJ*126GALH AJ*A90GALH AJ*A72GALH	AJ*126GALH AJ*A90GALH AJ*A90GALH	AJ*126GALH AJ*126GALH AJ*A72GALH	AJ*126GALH AJ*126GALH AJ*A90GALH	AJ*144GALH AJ*126GALH AJ*A90GALH	AJ*126GALH AJ*126GALH AJ*126GALH	AJ*144GALH AJ*126GALH AJ*126GALH
48	51	54	57	60	64	64
44.9-134.1	48.0-143.8	51.2-153.6	54.0-162.0	56.8-170.2	60.0-180.0	62.5-187.5
3-phase 4 wire, 400 V, 50Hz						
90.4	96.0	102.4	108.0	113.0	120.0	125.0
101.5	108.0	115.0	121.5	126.5	135.0	140.0
80	80	80	80	80	80	80
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
1,690	1,690	1,690	1,690	1,690	1,690	1,690
930×2+1,240	930×2+1,240	930×1,240×2	930×1,240×2	930×1,240×2	1,240×3	1,240×3
765	765	765	765	765	765	765
19.05	19.05	19.05	19.05	19.05	19.05	19.05
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
-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46	-10 to 46
-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

\*1 Minimum connectable indoor unit number is 2.

# Indoor Unit Lineup

12 Types, 55 Models, Capacity range from 2.2kW to 25.0kW




































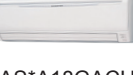


Capacity range (kW)		2.2	2.8	3.6	4.5
Model code		7	9	12	14
Cassette	Compact Cassette	 AUXB07GALH	 AUXB09GALH	 AUXB12GALH	 AUXB14GALH
	Cassette				
Duct	Low Static Pressure Duct	 ARXB07GALH	 ARXB09GALH	 ARXB12GALH	 ARXB14GALH
	Slim Duct (Drain pump internal)	 ARXD07GALH	 ARXD09GALH	 ARXD12GALH	 ARXD14GALH
	Medium Static Pressure Duct				
	High Static Pressure Duct				
Floor	Floor (*Same as Ceiling models)			 AB*A12GATH	 AB*A14GATH
	Concealed Floor (*Same as Low Static Pressure Duct models)	 ARXB07GALH	 ARXB09GALH	 ARXB12GALH	 ARXB14GALH
	Slim Concealed Floor (*Same as Slim Duct models)	 ARXD07GALH	 ARXD09GALH	 ARXD12GALH	 ARXD14GALH
Ceiling	Ceiling			 AB*A12GATH	 AB*A14GATH
Wall Mounted	Wall Mounted	 AS*A07GACH	 AS*A09GACH	 AS*A12GACH	 AS*A14GACH
	Wall Mounted (EEV external)	 AS*E07GACH	 AS*E09GACH	 AS*E12GACH	 AS*E14GACH

With this model, connection of EV kit is necessary.

AB\* : ABY(FUJITSU), ABH(GENERAL)    AS\* : ASY(FUJITSU), ASH(GENERAL)

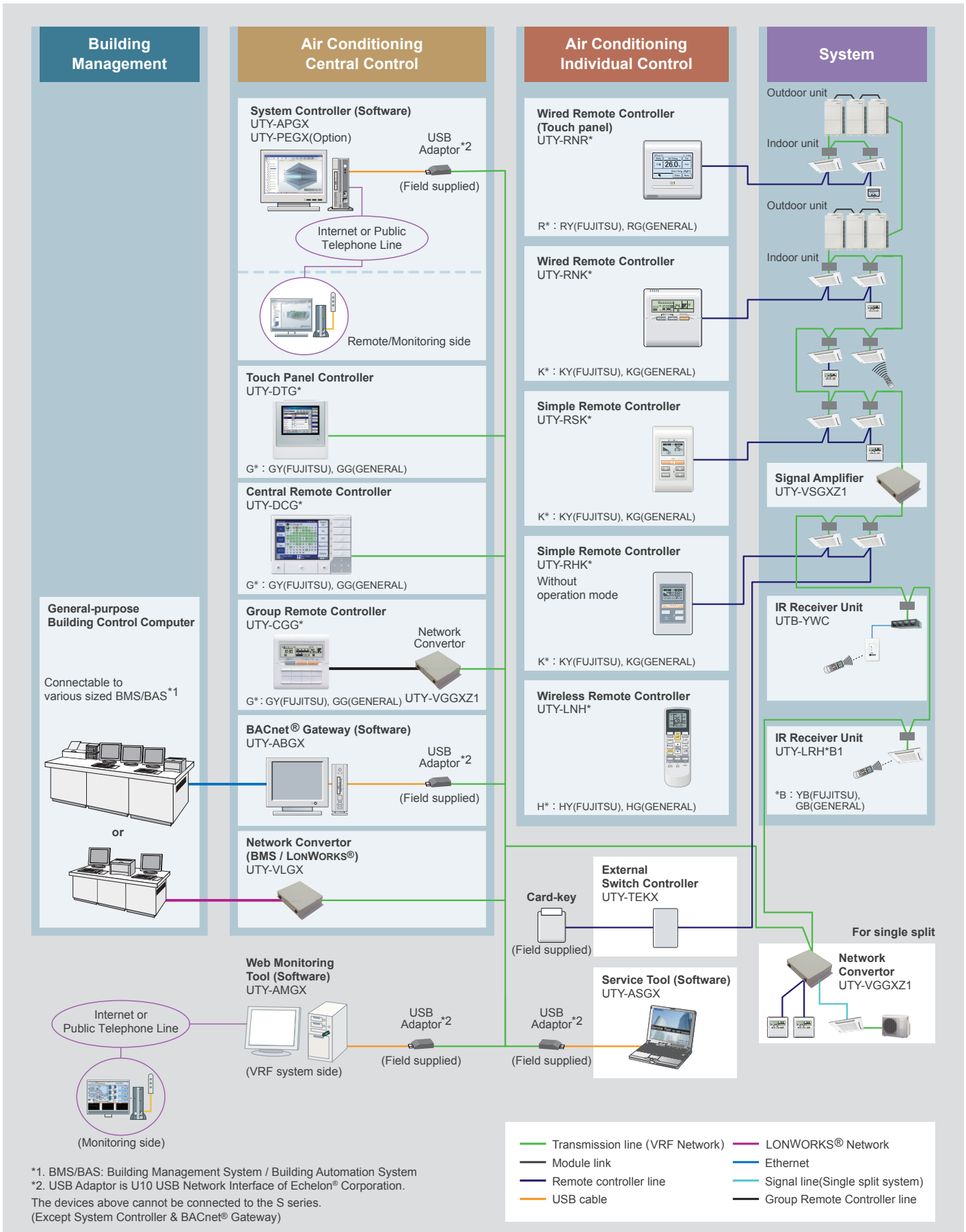


Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs.

5.6 18	7.1 24	9.0 30	11.2 36	12.5 45	14.0 54	18.0 60	22.4 72	25.0 90
 AUXB18GALH	 AUXB24GALH							
 AUXD18GALH	 AUXD24GALH	 AUXA30GALH	 AUXA36GALH	 AUXA45GALH	 AUXA54GALH			
 ARXB18GALH	 ARXB24GALH	 ARXB30GALH	 ARXB36GALH	 ARXB45GALH				
 ARXD18GALH	 ARXD24GALH							
	 ARXA24GALH	 ARXA30GALH	 ARXA36GALH	 ARXA45GALH				
			 ARXC36GATH	 ARXC45GATH		 ARXC60GATH	 ARXC72GATH	 ARXC90GATH
 AB*A18GATH	 AB*A24GATH							
 ARXB18GALH								
 ARXD18GALH	 ARXD24GALH							
 AB*A18GATH	 AB*A24GATH	 AB*A30GATH	 AB*A36GATH	 AB*A45GATH	 AB*A54GATH			
 AS*A18GACH	 AS*A24GACH	 AS*A30GACH						

# Control System

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





## Individual controller

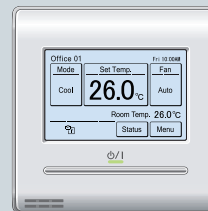
### Wired Remote Controller (Touch panel)

#### UTY-RNR\*

- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer(ON/OFF,Temp.,Mode)
- Temperature upper and lower limit setting
- Background light enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 7 different languages •Non-polar 2 wires

R\* : RY(FUJITSU), RG(GENERAL)

Max. controllable  
**16**  
indoor units



### Wired Remote Controller

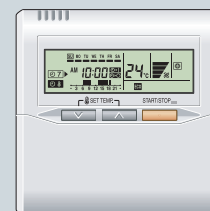
#### UTY-RNK\*

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

- Simple operation with Built-in Weekly / Daily Timer.
- Control up to 16 indoor units.
- Up to 2 wired remote controllers can be connected to a single indoor unit.

K\* : KY(FUJITSU), KG(GENERAL)

Max. controllable  
**16**  
indoor units



### Simple Remote Controller

#### UTY-RSK\*

#### UTY-RHK\* (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.

K\* : KY(FUJITSU), KG(GENERAL)

Max. controllable  
**16**  
indoor units



UTY-RSK\*



UTY-RHK\*

Without operation mode

### Wireless Remote Controller

#### UTY-LNH\*

Simple and sophisticated operations with a choice of 4 daily timers

- A single controller controls up to 16 indoor units.

H\* : HY(FUJITSU), HG(GENERAL)

Max. controllable  
**16**  
indoor units

Selectable  
**4**  
daily timers

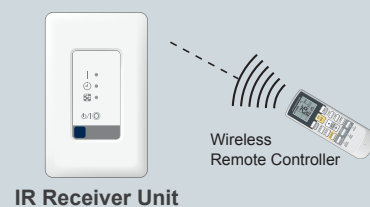


UTY-LNH\*

### IR Receiver Unit

#### UTB-YWC

Necessary to control for all duct type by Wireless Remote Controller



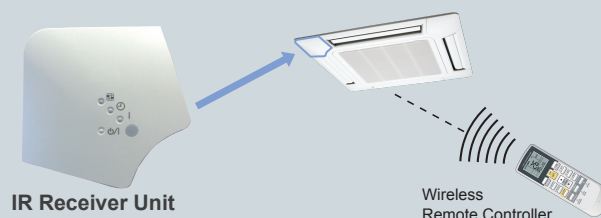
IR Receiver Unit

### IR Receiver Unit

#### UTY-LRH\*B1

Cassette type indoor unit can be controlled with Wireless Remote Controller

\*B : YB(FUJITSU), GB(GENERAL)



IR Receiver Unit

Wireless Remote Controller

# Control System

## Central controller

### Group Remote Controller

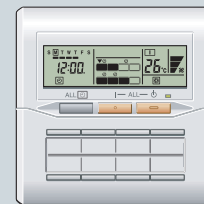
UTY-CGG\*

**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 is required to connect Group Remote Controllers to a VRF network system.  
(Network Converter allows up to 4 Group Remote Controllers)

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

Max. controllable  
**8**  
remote  
controller groups



G\* : GY(FUJITSU), GG(GENERAL)

### Central Remote Controller

UTY-DCG\*

**Central control of small- and medium-sized buildings and tenants.**

- 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 like English, Chinese, French, German, Spanish, Russian, Polish.

Max. controllable  
**100**  
Indoor units

Max. controllable  
**16**  
groups



G\* : GY(FUJITSU), GG(GENERAL)

### Touch Panel Controller

UTY-DTG\*

- Large-sized 7.5-inch TFT color
- Easy finger touch operation with LCD panel
- 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



G\* : GY(FUJITSU), GG(GENERAL)

### System Controller

Software

UTY-APGX

UTY-PEGX (Energy manager-Option)

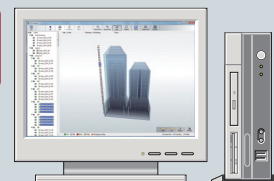
**System Controller realizes the advanced integrated monitoring & control of VRF network system from small scale buildings to large scale buildings.**

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled.
- Supports VRF VR-II as well as J-II and V-II series.
- 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.
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

Max. controllable  
**4**  
VRF network systems

Max. controllable  
**400**  
outdoor units

Max. controllable  
**1,600**  
indoor units



## Service & Maintenance Tool

### 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 smallest abnormalities
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF network system) can be controlled and monitored for large scale buildings or hotels
- This software can be connected to any point of transmission line with USB adaptor (field supplied).
- Supports VRF VR-II as well as J-II and V-II series

Max. Monitor  
and controll  
**400**  
indoor units

Max. Monitor  
and controll  
**100**  
outdoor units



## Service & Maintenance Tool

### Web Monitoring Tool Software

#### UTY-AMGX

##### Product features

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet\*1.
- Requires either a dedicated internet connection or public telephone line.
- Determination of an error occurrence can be made through error warnings and equipment status information obtained from a remote location.
- Supports VRF VR-II as well as J-II and V-II series

VRF network system  
can be supported  
**4**

**1,600**  
indoor units  
can be supported

\*1: Use of internet mail system required.

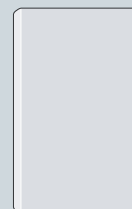
## Convertor/Adaptor

### 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.

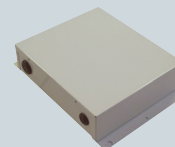


### Network Convertor

#### UTY-VGGXZ1

- This network convertor is to be used for connecting single split system or group remote controller with the VRF network system.
- Please select the function by switching the dip switch during the installation.

Max. controllable  
**16**  
Network  
Convertor units



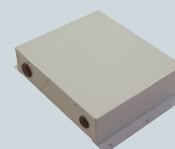
### Network Convertor for LONWORKS®

#### 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.

Max. controllable  
**4**  
Units to BMS

Max. controllable  
**128**  
indoor units



### BACnet® Gateway Software

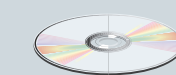
#### UTY-ABGX

- The VRF network system can be incorporated into a Building Management System.
- Enables central control of up to 1,600 indoor units through BACnet®, a global standard for open networks.
- Conforms to ANSI / ASHRAE Standards® 135-2004 BACnet® Application Specific Controller (B-ASC) BACnet® / IP over Ethernet.
- Connects up to 4 VRF network systems (1,600 indoor units / 400 outdoor units) per gateway.
- Supports VRF VR-II as well as J-II and V-II series

Max. controllable  
**4**  
VRF network systems

Max. controllable  
**400**  
outdoor units

Max. controllable  
**1,600**  
indoor units



DVD-ROM  
(Software)

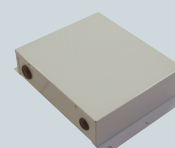


Software  
Protection Key

### Signal Amplifier

#### UTY-VSGXZ1


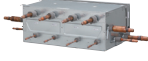
- Transmission Line length can be extended up to 3,600m with multiple Signal Amplifier.
- Multiple Signal Amplifier are required according to the total wiring length or total number of connectable units.
- A Signal Amplifier has filter function for communication. It is required every VRF refrigerant system in a parallel transmission connection when the total number of indoor units exceeds 320.



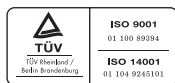


# Refrigerant piping parts

## RB unit

Type	Single type			Multi type
				
Model name	UTP-RX01AH	UTP-RX01BH	UTP-RX01CH	UTP-RX04BH
Power source	Single phase 230V, 50Hz			
Input power	W	17	24	31
Number of branches	1	1	1	4
Maximum capacity of connectable indoor units(Q)	kW	$Q \leq 8.0$	$Q \leq 18.0$	$Q \leq 28.0$
Maximum capacity of connectable indoor units per branch(Q)	kW	$Q \leq 8.0$	$Q \leq 18.0$	$Q \leq 28.0$
Maximum number of connectable indoor units per branch	3	8	8	8
Dimensions (H×W×D)	mm	198 X 298 X 268		
		260 X 658 X 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.



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



ISO 9001  
Certified number : 01 100 79269  
Fujitsu General (Shanghai) Co., Ltd.



ISO 14001  
Certified number : 272043  
Fujitsu General (Shanghai) Co., Ltd.



ISO 9001  
Certified number : 00608Q11061R2M  
Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.



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