FUJITSU

The Intelligent Choice in Comfort

PRODUCT
CATALOGUE 2014

SPLIT / MULTI SPLIT / VRF / VENTILATION / AIR TO WATER

FUJITSU GENERAL LIMITED

AIRSTAGE™ VRF Systems can be designed to create an air conditioning solution to suit most buildings requirements.

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

AIRSTAGE™

V R F

Fujitsu General provides multi air conditioning systems for buildings AIRSTAGE™ Series matched to the size and application of the property
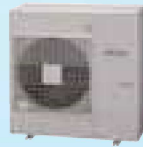
A pleasant air conditioned environment matched to the needs is created by combining a wide variety of outdoor units, indoor units, and controllers.

Outdoor Units Line-up Page 110~

Heat Pump type for heating or cooling operation

NEW

Systems for large homes to medium sized offices, shops

4HP, 5HP, 6HP 3 models

AIRSTAGE ™ **J-IIS**

Heat Pump type for heating or cooling operation

Systems for large homes to medium sized offices, shops

4HP, 5HP, 6HP 3 models

AIRSTAGE ™ **J-II**

Indoor Units & Ventilations Line-up Page 134~

Capacity range 1.1 kW to 25.0 kW (J-II can be connected up to 14.0 kW.)

Compact Cassette

Cassette

Low Static Pressure Duct

Slim Duct (With drain pump)

Medium Static Pressure Duct

High Static Pressure Duct

Floor / Ceiling

Ceiling

Wall Mounted (EEV internal / EEV external)

Wall Mounted

NEW Outdoor Air Unit 3 models Page 166~

Heat Pump type for heating or cooling operation

Systems for large offices, hotels, and large composite facilities

8HP-48HP 33models
- Space saving combination : 8HP to 48HP / 21 models
- Energy efficiency combination : 16HP to 44HP / 12 models

AIRSTAGE V-II

Heat Recovery type for simultaneous heating and cooling operation

Systems compatible with individual operation mode control, as well as large offices, hotels, and large composite facilities

8HP-48HP 34models
- Space saving combination : 8HP to 48HP / 21 models
- Energy efficiency combination : 16HP to 44HP / 13 models

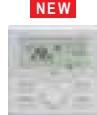**AIRSTAGE VR-II**

Various Easy-to-use Controllers Page 140~

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

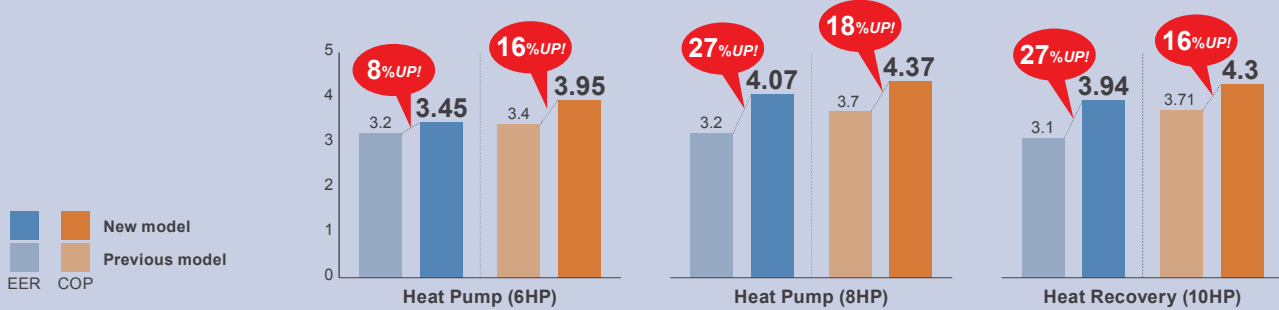|		NEW	
Wireless Remote Controller	Simple Remote Controller	Wired Remote Controller	Wired Remote Controller (Touch Panel)
Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller System Controller Lite (Software)

Highly Energy Efficiency

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

8%UP! 3.2 **3.45**
16%UP! 3.4 **3.95**
27%UP! 3.2 **4.07**
18%UP! 3.7 **4.37**
27%UP! 3.1 **3.94**
16%UP! 3.71 **4.3**

New model
Previous model
EER COP

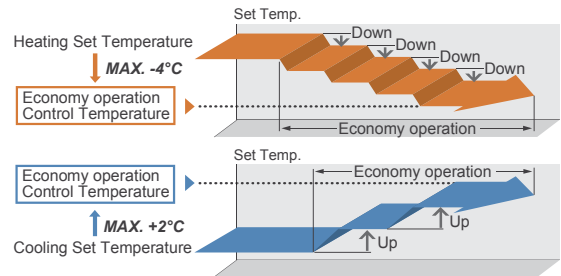Heat Pump (6HP) Heat Pump (8HP) Heat Recovery (10HP)

Energy Saving Function

Room temperature set point limitation

The minimum and maximum temperature ranges can be limited, which provide further energy saving while maintaining the comfort of the occupants.
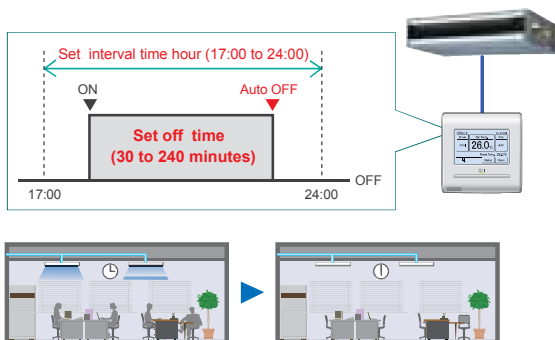
(°C) Heating Cooling
30 28 26 24 22 20 18 16 14 12 10
Original Set Temp. Set point limitation setting
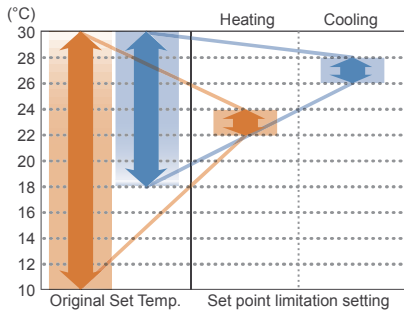
Economy operation

Economy operation can be set by remote controller.
The temperature setting is offset automatically over a certain period of time.

Set Temp.
Heating Set Temperature
MAX. -4°C
Economy operation Control Temperature
Down Down Down Down
Economy operation

Set Temp.
Economy operation Control Temperature
Economy operation
MAX. +2°C
Cooling Set Temperature
Up Up Up

Auto-off timer

•The indoor unit automatically is turned off when it reaches to the preset operating time frame.

•The time frame of the "Auto off timer" can be flexibly scheduled.

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

Capacity save operation

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

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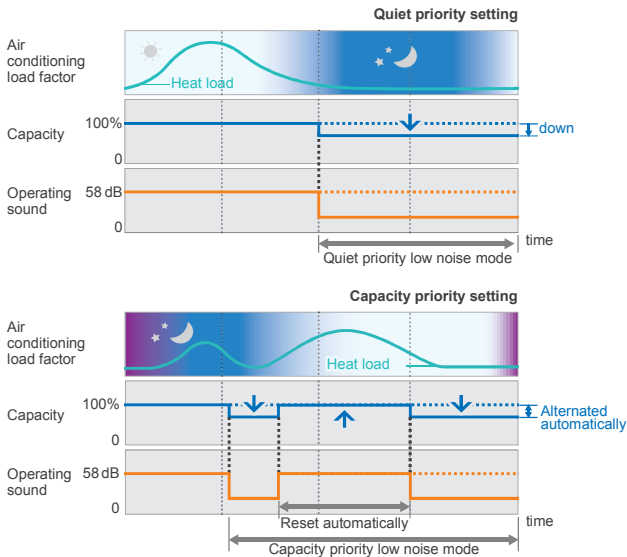100% 80% 60% 40% 0%
Setting level
Time
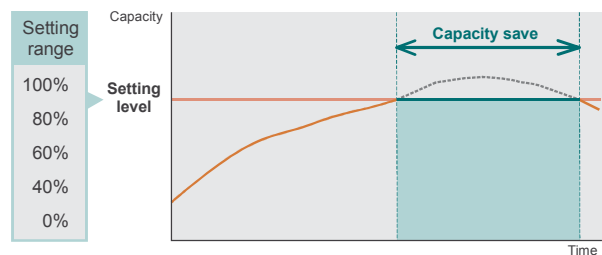
More Comfort

Precision refrigerant flow control

Precise and smooth refrigerant flow control is achieved by using a DC Inverter control in conjunction with individual indoor unit electronic expansion valve control. This allows high precision comfortable temperature control of ±0.5°C.

High

±0.5˚C

Set temp. Hot Hot
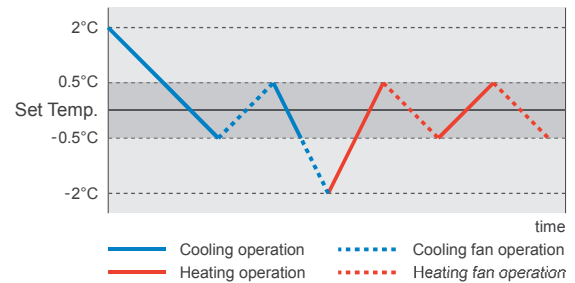
Cold

Low

Reach the set temperature quickly
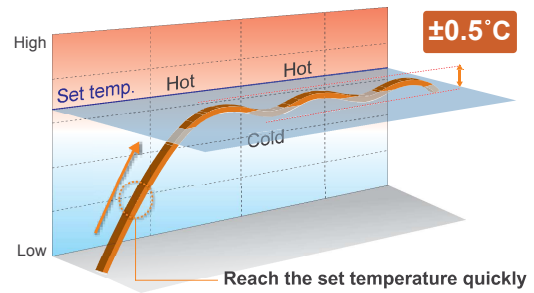
Quiet operation

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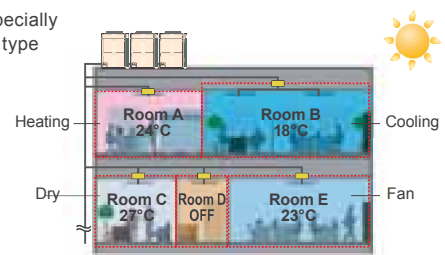

Quiet priority setting

Air conditioning load factor

Heat load

Capacity

100%

0

down

Operating sound

58 dB

0

time

Quiet priority low noise mode

Capacity priority setting

Air conditioning load factor

Heat load

Capacity

100%

0

Alternated automatically

Operating sound

58 dB

0

Reset automatically

time

Capacity priority low noise mode

Auto changeover function

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

2°C

0.5°C

Set Temp.

-0.5°C

-2°C

time

| Cooling operation | Cooling fan operation |
| Heating operation | Heating fan operation |

Suitable for especially
Heat Recovery type

Heating

Cooling

Dry

Fan

Room A 24°C

Room B 18°C

Room C 27°C

Room D OFF

Room E 23°C

Design Flexibility

High capacity connection

4HP-6HP

AIRSTAGE™ J-IIS series
Heat Pump type

Connectable indoor unit
capacity range

50% to 130%[*1]

Connectable indoor
unit number

up to 8

8HP-48HP

AIRSTAGE™ V-II series
Heat Pump type

Connectable indoor unit
capacity range

50% to 150%[*1]

Connectable indoor
unit number

up to 48

AIRSTAGE™ VR-II series
Heat Recovery type

Connectable indoor unit
capacity range

50% to 150%[*1]

Connectable indoor
unit number

up to 64

4HP-6HP

AIRSTAGE™ J-II series
Heat Pump type

Connectable indoor unit
capacity range

50%[*2] **to 130%**[*1]

Connectable indoor
unit number

up to 9

*1. Conditions of maximum connectable indoor unit capacity ratio is as the chart below.
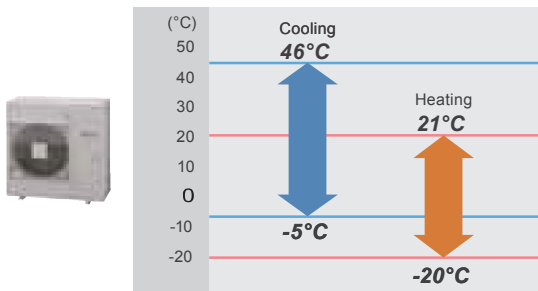*2. Only 4HP is 46%

Outdoor unit capacity	Maximum connectable indoor unit capacity ratio	
	Without 1.1 kW models	With 1.1 kW models[*3]
8HP-48HP	*150%*	*130%*
4HP-6HP	*130%*	*120%*

*3. 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
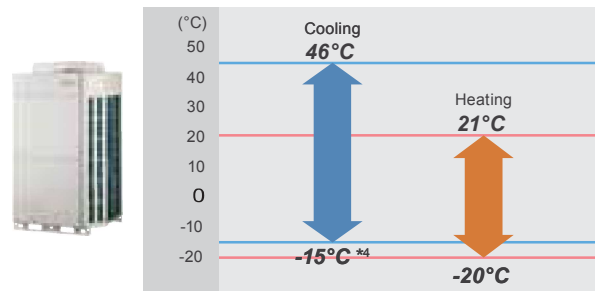   capacity ratio is 110%.

Wide operating range

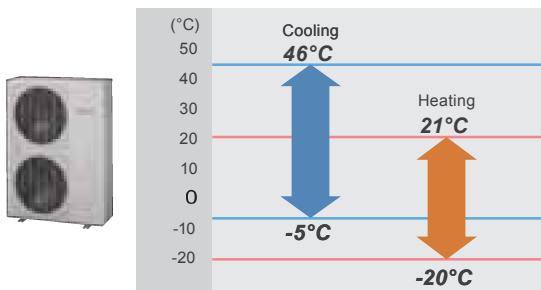Installation in extreme temperature conditions is possible due to an increase in operational range.
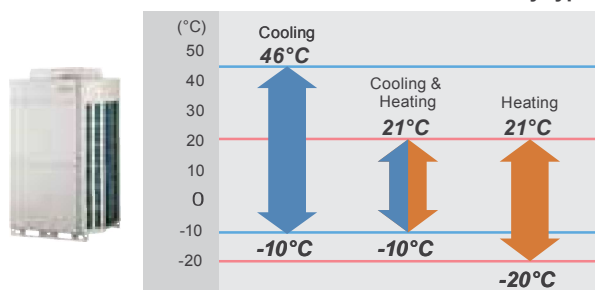
AIRSTAGE™ J-IIS series Heat Pump type

(°C)
50
40
30
20
10
0
-10
-20

Cooling
46°C

Heating
21°C

-5°C

-20°C

AIRSTAGE™ V-II series Heat Pump type

(°C)
50
40
30
20
10
0
-10
-20

Cooling
46°C

Heating
21°C

-15°C *4

-20°C

AIRSTAGE™ J-II series Heat Pump type

(°C)
50
40
30
20
10
0
-10
-20

Cooling
46°C

Heating
21°C

-5°C

-20°C

AIRSTAGE™ VR-II series Heat Recovery type

(°C)
50
40
30
20
10
0
-10
-20

Cooling
46°C

Cooling &
Heating
**21°C**

Heating
21°C

-10°C

-10°C

-20°C

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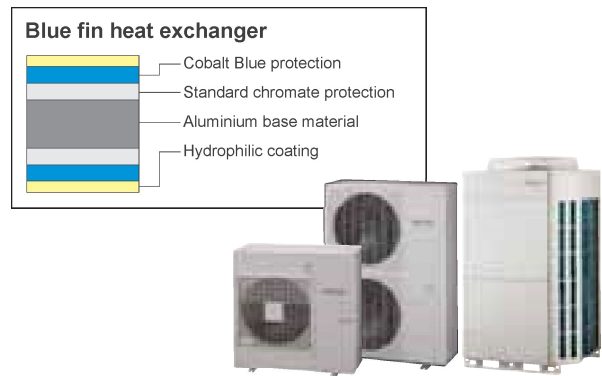
High Reliability

Liquid flow back protection

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

Completely vapourised refrigerant

from Evaporator

Liquid refrigerant (stays inside of accumulator)

Compressor

Large sized Accumulator
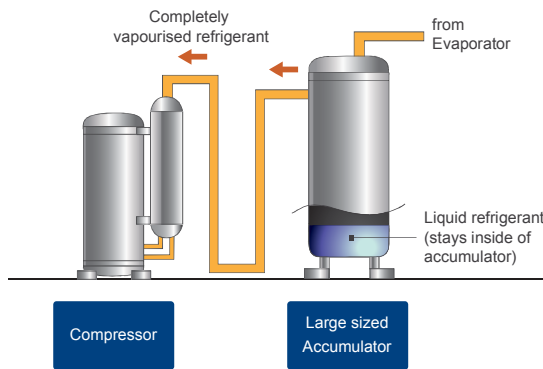
Adoption of blue fin heat exchanger

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

Blue fin heat exchanger

Cobalt Blue protection
Standard chromate protection
Aluminium base material
Hydrophilic coating

Life-extending operation*5

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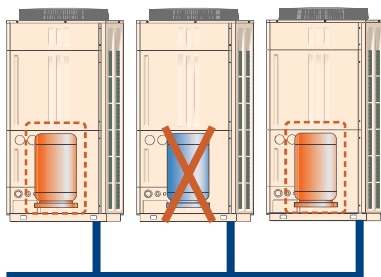
Rotation
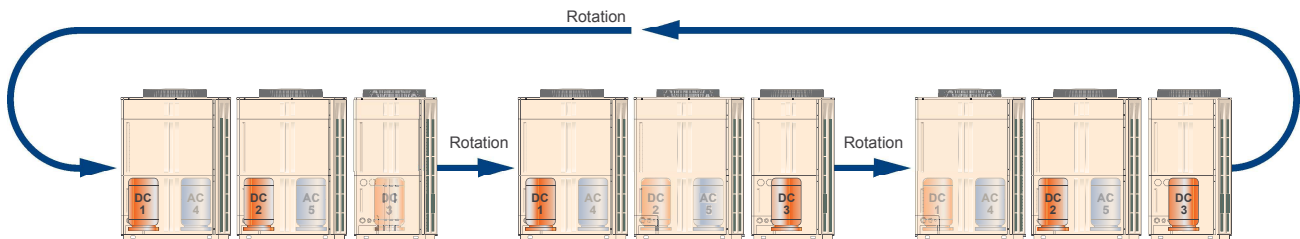
Rotation

Rotation

Note: The inverter compressors start in priority. Rotate operation is alternated by the start / stop timing of the compressors
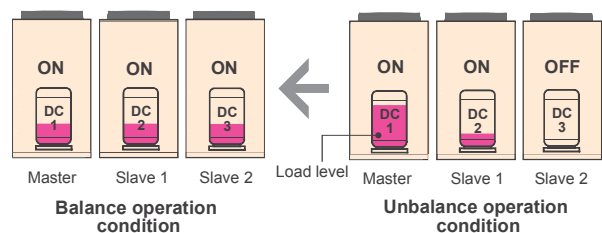
Backup operation*5

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*5

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.
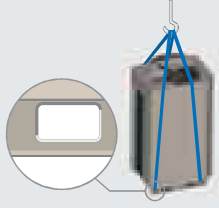
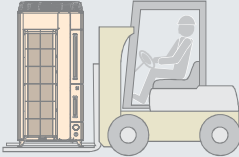| ON	ON	ON		ON	ON	OFF
DC 1	DC 2	DC 3	Load level	DC 1	DC 2	DC 3
Master	Slave 1	Slave 2		Master	Slave 1	Slave 2
Balance operation condition				**Unbalance operation condition**		

*5. Not available for AIRSTAGE™ J-IIS and J-II series

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
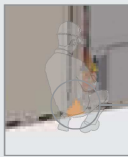
Reduced installation
intervals by
front access

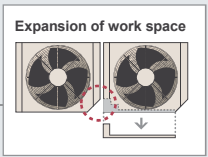Flexible installation by
4 way pipe direction

By adopting a L-Shape front panel that can be removed, the
work space for installation and service has been significantly
expanded by this
new design.

For multiple
installations, work
is performed easily
and efficiently even
in a narrow space.
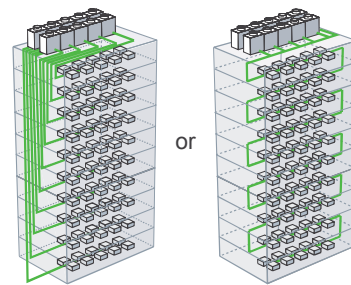
Expansion of work space

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.

Note: Serial connection can't use the automatic address setting in a multiple
refrigerant system.

or
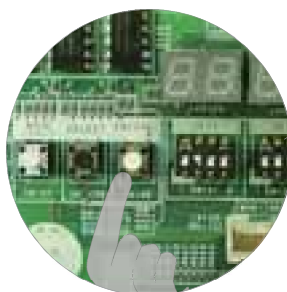
Parallel connection

Serial connection

*Up to maximum
length* **3,600 m**

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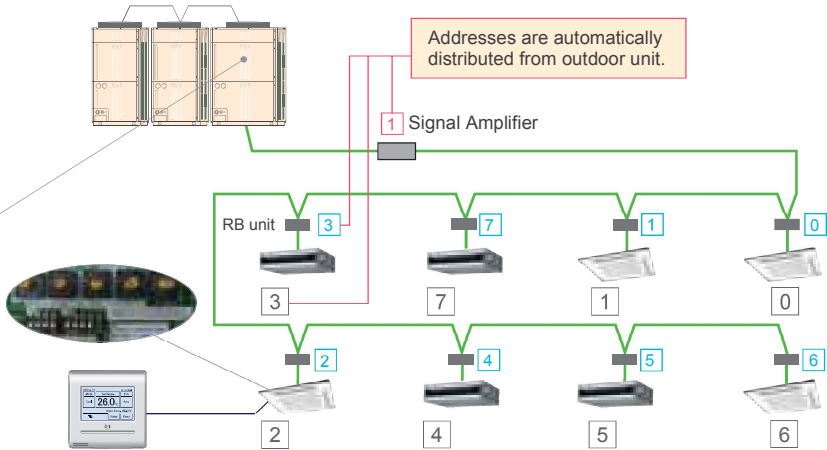
The address of the indoor unit, RB unit and signal amplifier through the automatic function setting on the outdoor unit PCB.

Automatic address setting is
performed at outdoor unit

Addresses are automatically
distributed from outdoor unit.

1 Signal Amplifier

RB unit   3   7   1   0

3   7   1   0

Press the push button
switch of outdoor unit.

2   4   5   6

2   4   5   6

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

Easy Service & Maintenance

Design for easy maintenance

Movable PCB panel
Easier for maintenance
work behind the PCB

Error status can be checked easily via the indoor unit wired controller
An error code is displayed on a liquid crystal screen.

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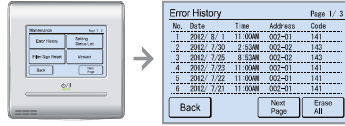
System number
001: Controller
002: Indoor unit   Error code

Unit number

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

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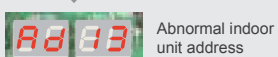
• Operation mode status
• Discharge temperature / Pressure status
• Compressor operation indication
• Address / type / number of outdoor unit

Error and quantity annunciation
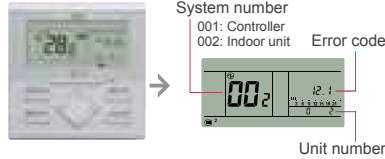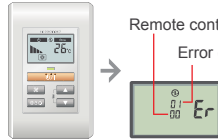
Error code

Abnormal indoor unit address

• Error status can be checked easily by outdoor unit display

Simple Remote Controller

Remote controller address
Error code

Wired Remote Controller (Touch panel)

Error status / Error history

Error diagnosis by Service Tool

Connection to Service Tool
• Detail operation status and recent error history can be checked and analyzed by using the Service Tool.
• Last 5 min. operation memory can be also be recorded.

Outdoor unit

Transmission line

RB unit

Indoor unit

Service Tool
UTY-ASGX
Software

USB adaptor
(Field supplied)
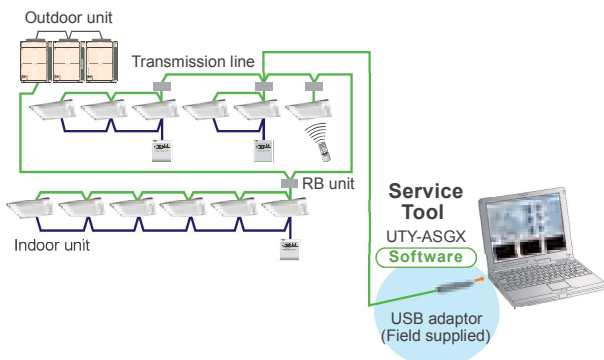
Remote monitoring

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

Monitoring Side

VRF Network System Side

Outdoor unit

Transmission line

Internet or Public Telephone Line

USB adaptor
(Field supplied)

Web Monitoring Tool

Indoor unit
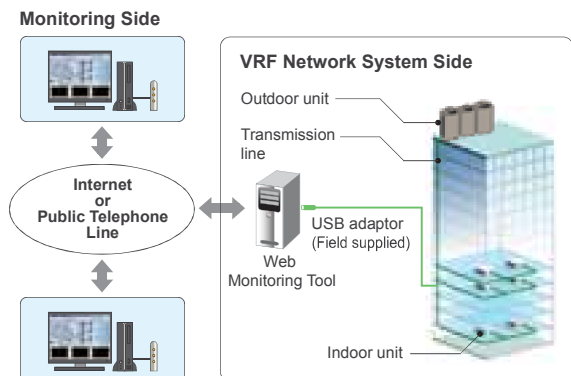
The operating VRF network system in the building can be monitored real time over the Internet.

NEW **Heat pump :** AJY040LCLAH / AJY045LCLAH / AJY054LCLAH

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

Features

It Can be Easily Carried
and Installed Obscure Place

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

NEW Model / 6HP class

Height difference
998 mm
▲*25%*

Light weight
87 kg
▲*26%*

Small and
light weight outdoor unit

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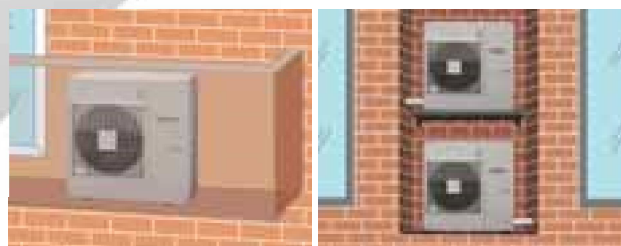
Low sound level design

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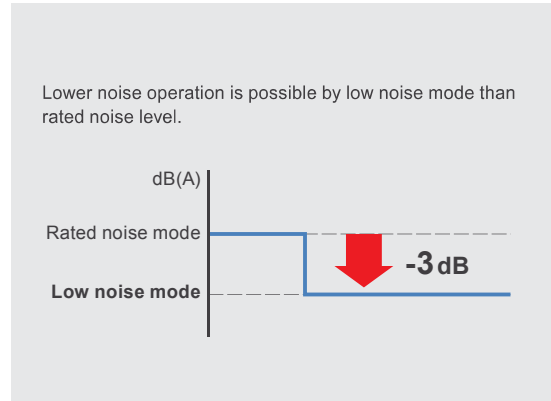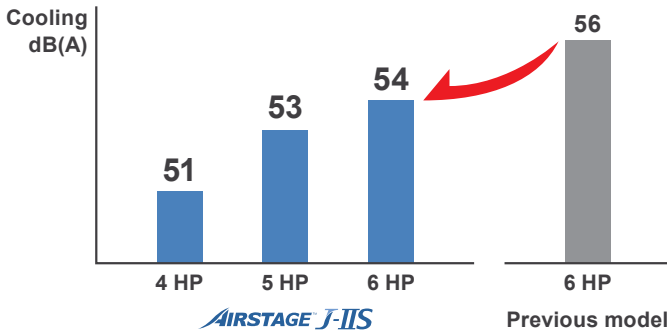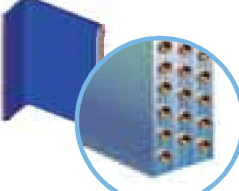
Cooling dB(A)

- 4 HP: 51
- 5 HP: 53
- 6 HP: 54

AIRSTAGE *J-IIS*

6 HP: 56 — **Previous model**

Lower noise operation is possible by low noise mode than rated noise level.

dB(A)

Rated noise mode

Low noise mode

-3 dB

Advanced high efficiency technology

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

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

Large heat exchanger
Heat exchange performance is substantially improved by mounting of 3-row large heat exchanger.
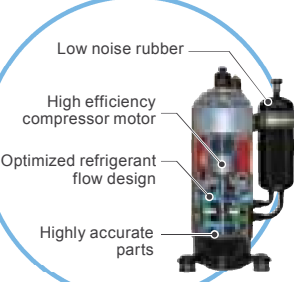
High heat transfer copper tube (Improved lead angle)

Smooth airflow grille
This grille was aerodynamically designed for good efficiency with little blow loss.
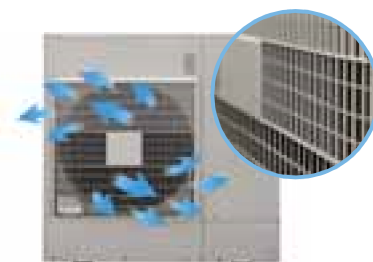
DC inverter control
Efficiency is improved by mounting of new active filter module.

Low noise rubber

High efficiency compressor motor

Optimized refrigerant flow design

Highly accurate parts

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

High

Compressor efficiency

Compressor capacity   **100%**   High

111
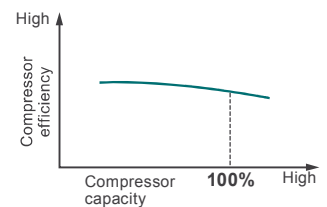
Features

Long piping length

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

Total pipe length
Max. **80 m**

Actual piping length
Max. **50 m**

Height difference between outdoor and indoor units
Max. **30 m**

Height difference between indoor and indoor units
Max. **15 m**

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

More Comfort

Non-stop oil recovery operation

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

Previous model

*1

Operation stopped at oil recovery

ON
OFF
Time

J-II series (Heating operation)

Non-stop oil recovery operation

ON
Time

Easier Installation

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

• Display connected indoor unit numbers
• Duplicately set address number of indoor unit can be displayed

Specifications

Rating capacity range	HP	4	5	6
Model name		AJY040LCLAH	AJY045LCLAH	AJY054LCLAH
Maximum connectable indoor unit		7	8	8
Power source	V/Ø/Hz	230/1/50	230/1/50	230/1/50
Capacity	Cooling kW	12.1	14.0	15.1
	Heating	13.6	16.0	16.5
Input power	Cooling kW	3.44	4.43	5.32
	Heating	3.09	3.93	4.26
EER	Cooling W/W	3.52	3.16	2.84
COP	Heating	4.40	4.07	3.87
Airflow rate	m³/h	4,040	4,200	4,200
Sound Pressure level	Cooling dB (A)	51	53	54
	Heating	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
Connection Pipe diameter	Liquid mm	ø9.52	ø9.52	ø9.52
	Gas	ø15.88	ø15.88	ø15.88
Total pipe length	m	80	80	80
Max. Height difference		30	30	30
Operation Range	Cooling °C	-5 to 46	-5 to 46	-5 to 46
	Heating	-20 to 21	-20 to 21	-20 to 21

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

Dimensions
(Unit : mm)

Model : AJY040LCLAH / AJY045LCLAH / AJY054LCLAH

Top view

Front view

Side view

Rear view

Bottom view

Detail A
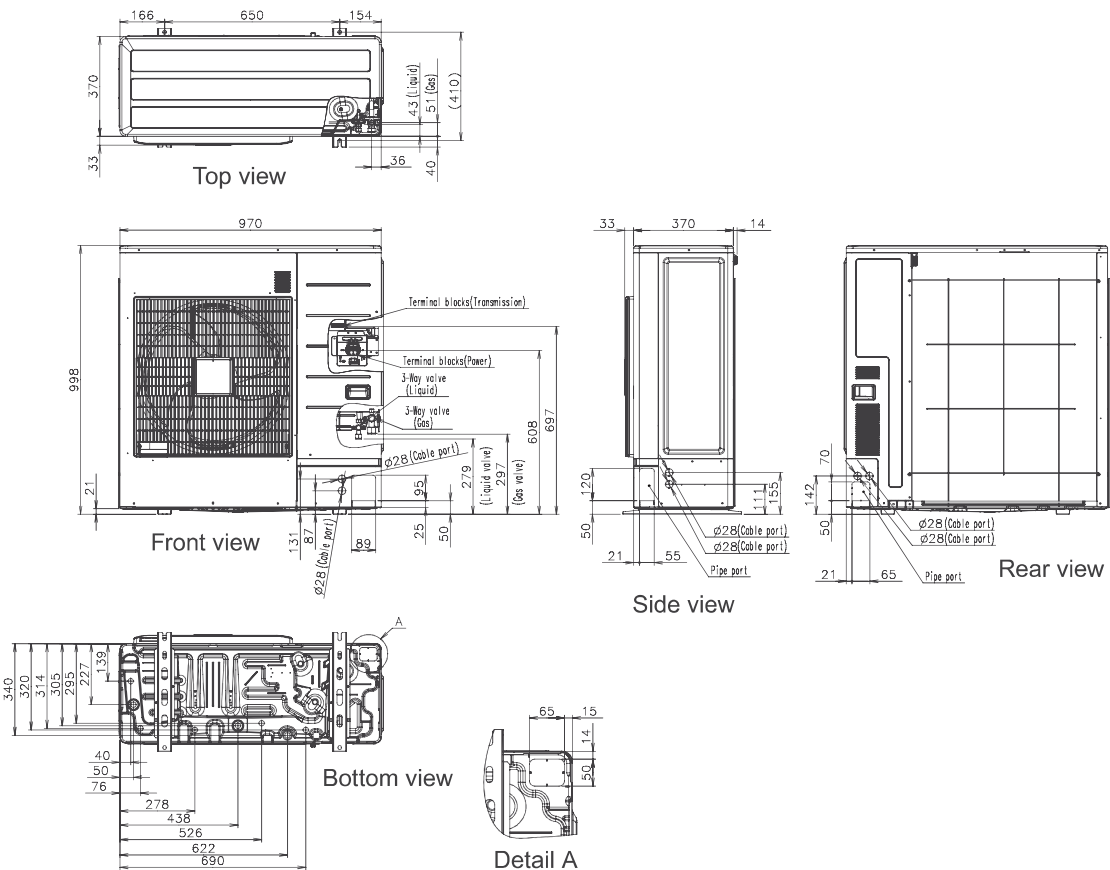
Heat pump : AJYA40LALH / AJYA45LALH / AJYA54LALH

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

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

4 HP: EER 3.72, COP 4.29
5 HP: EER 3.60, COP 4.20
6 HP: EER 3.45, COP 3.95
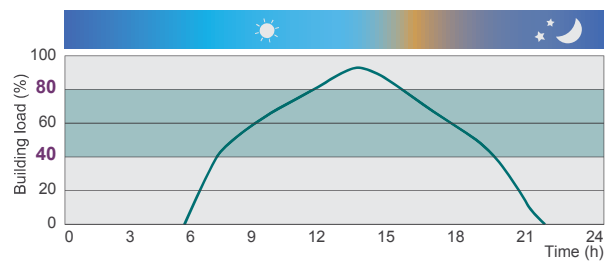
: EER   : COP
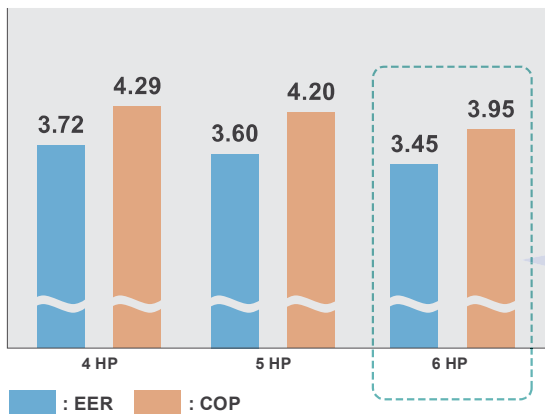
High part load performance (6HP class)

EER Cooling part load: 100% 3.45, 66% UP, 50% 5.73
COP Heating part load: 100% 3.95, 46% UP, 50% 5.75
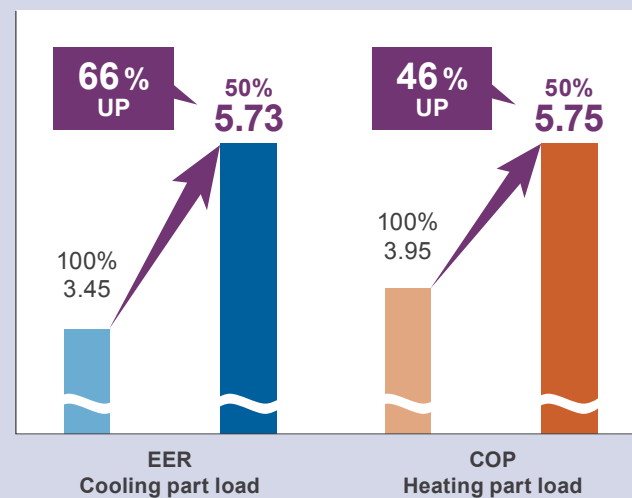
Conditions : Connected indoor units: AUXA30GALH+AUXD24GALH
Cooling : indoor temp. of 27°CDB / 19°CWB, outdoor temp. of 35°CDB / 24°CWB
Heating : indoor temp. of 20°CDB / 15°CWB, outdoor temp. of 7°CDB / 6°CWB

Powerful Heating

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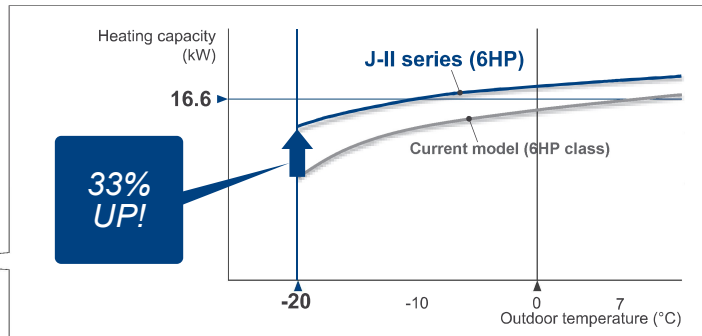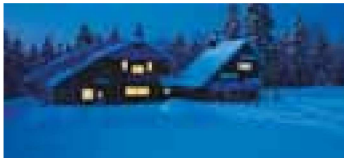
Heating capacity (kW)

J-II series (6HP)

16.6 ►

33% UP!

Current model (6HP class)

-20   -10   0   7
Outdoor temperature (°C)

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.
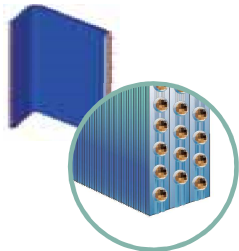
Large heat exchanger

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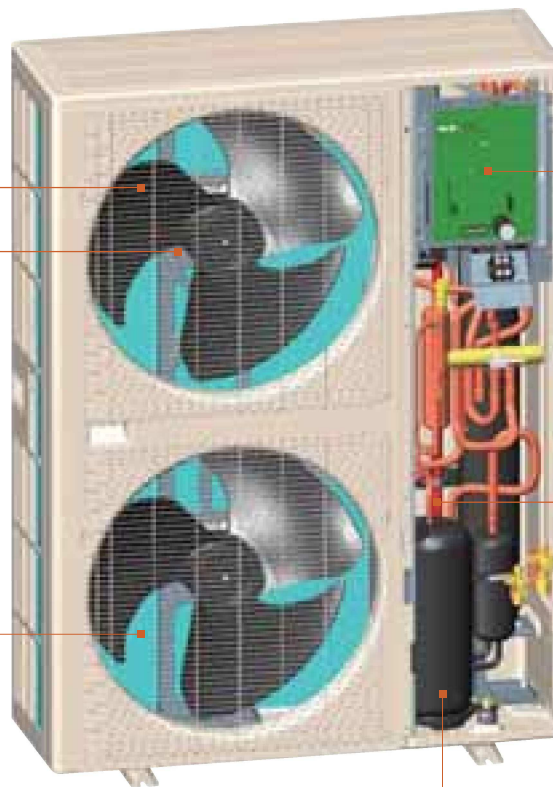
DC inverter control

Efficiency is improved by mounting of new active filter module.

Subcool heat exchanger

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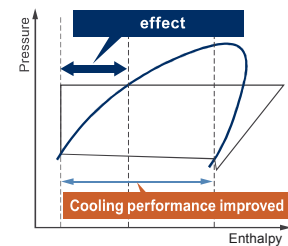
Pressure

effect

Cooling performance improved

Enthalpy

High efficiency compressor motor

Optimized refrigerant flow design

Highly accurate parts

DC twin rotary compressor

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

High

Compressor efficiency

DC Twin Rotary compressor

Compressor capacity   High
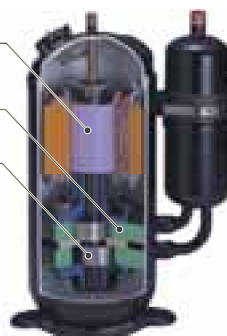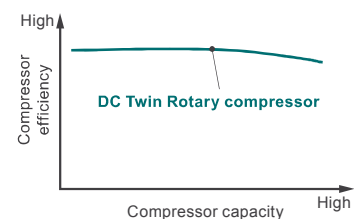
Features

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.

Total pipe length
Max. **180 m**

Actual piping length
Max. **120 m**

Height difference between outdoor and indoor units
Max. **30 m**

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

Height difference between indoor and indoor units
Max. **15 m**

More Comfort

Non-stop oil recovery operation

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

Previous model
*1
Operation stopped at oil recovery

J-II series
(Heating operation)
Non-stop oil recovery operation

ON
OFF
Time

ON
Time

Easier Installation

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

- Display connected indoor unit numbers
- Duplicately set address number of indoor unit can be displayed

Specifications

Rating Capacity range	HP		4	5	6
Model name			AJYA40LALH	AJYA45LALH	AJYA54LALH
Maximum Connectable Indoor Unit			7	8	9
Power source	V/Ø/Hz		230/1/50	230/1/50	230/1/50
Capacity	Cooling	kW	12.1	14.0	15.5
	Heating		13.6	16.0	18.0
Input power	Cooling	kW	3.25	3.89	4.49
	Heating		3.17	3.81	4.56
EER	Cooling	W/W	3.72	3.60	3.45
COP	Heating		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		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 charge	kg		4.8	5.3	5.3
Connection pipe diameter	Liquid	mm	ø9.52	ø9.52	ø9.52
	Gas		ø15.88	ø15.88	ø19.05
Operation range	Cooling	°C	-5 to 46	-5 to 46	-5 to 46
	Heating		-20 to 21	-20 to 21	-20 to 21

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

Dimensions

(Unit : mm)

Model : AJYA40LALH / AJYA45LALH / AJYA54LALH
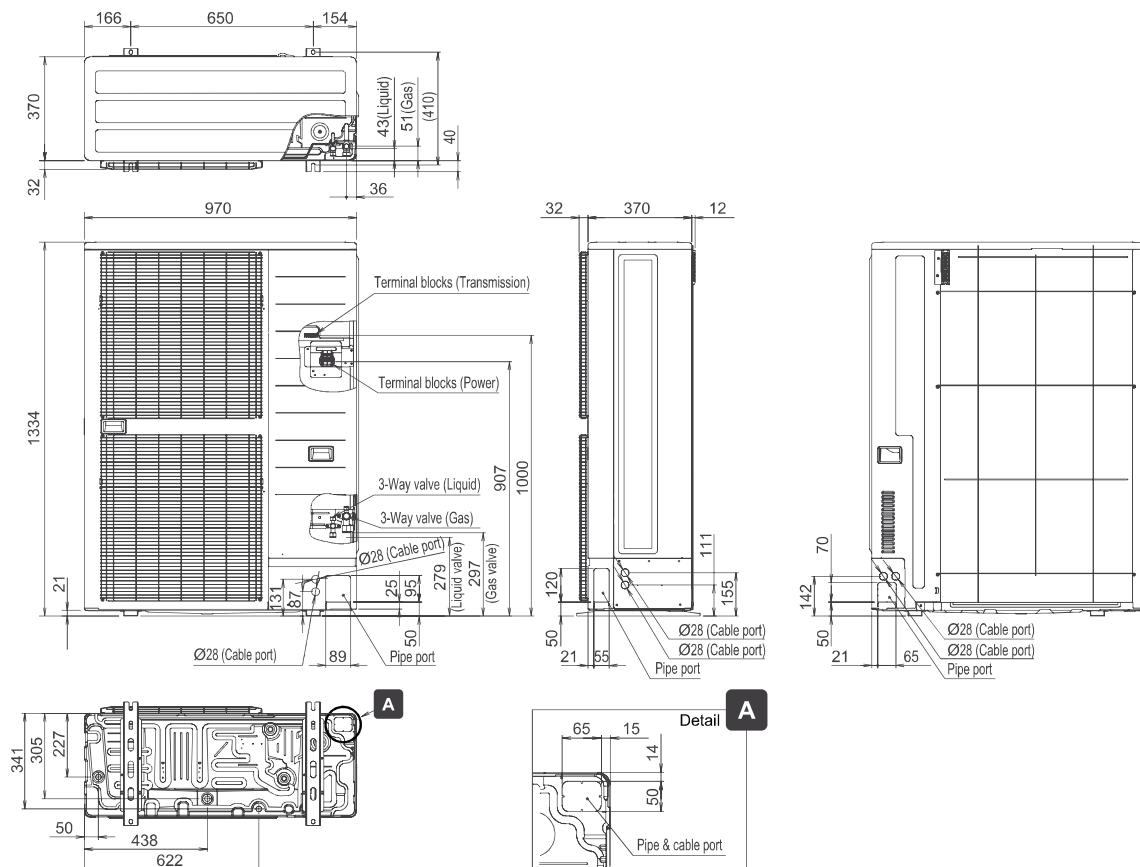
Heat pump

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

| 8, 10, 12HP | 14, 16HP |

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

(COP)

HP	8	10	12	14	16	18	20	22	24*	26	28	30	32	34	36	38	40	42	44	46	48
COP	4.37	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

Energy efficiency combination

(COP)

HP	16	22	24*	26	28	30	32	34	36	40	42	44
COP	4.37	4.08	4.37	4.23	4.22	4.15	4.12	4.06	4.02	3.96	3.93	3.94

For 24 HP Combination

Space saving → Energy efficiency

COP 12% UP
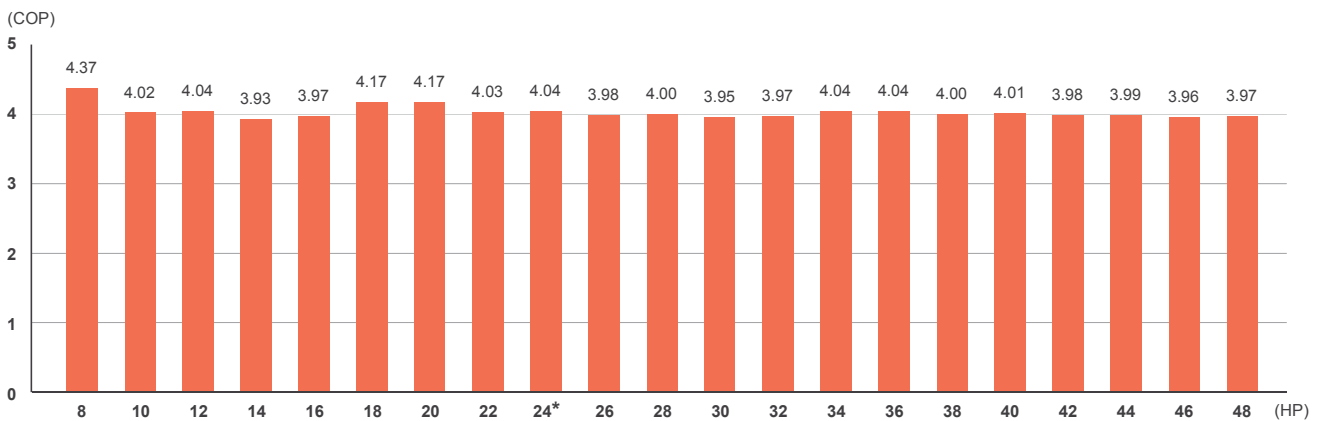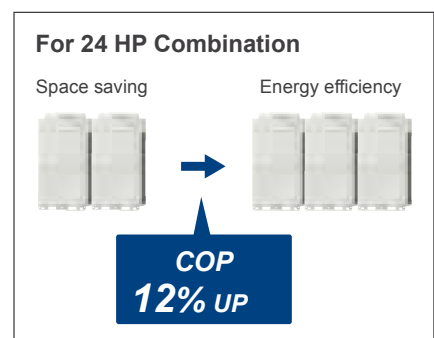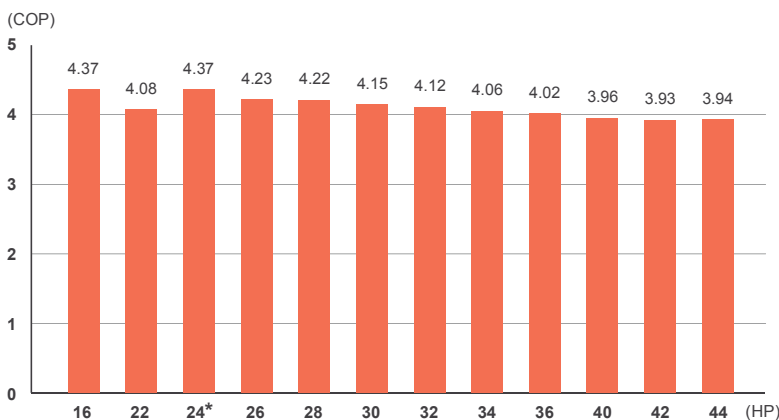
Space saving and compact size

Compact size has been achieved by significantly reducing the width of the outdoor units compared to previous models.
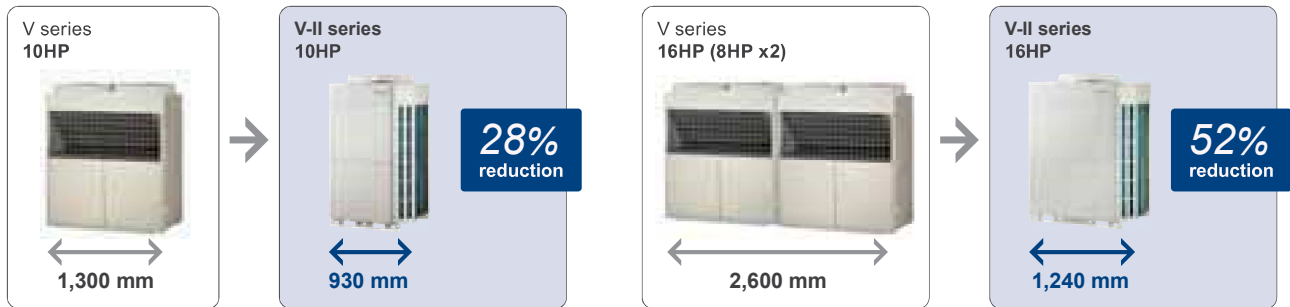
V series
10HP

1,300 mm

V-II series
10HP

28%
reduction

930 mm

V series
16HP (8HP x2)

2,600 mm

V-II series
16HP

52%
reduction

1,240 mm

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.

119

Features

Design Flexibility

Overall piping length 1,000 m

World's top class overall piping length of 1,000 m allows for application in a wide variety of buildings.

Total pipe length
Max. 1,000 m

Height difference between outdoor and indoor units
Max. 50 m

For the outdoor unit stated below : 40m max.

Actual pipe length
Max. 150 m

Pipe length from first separation tube to the farthest indoor unit
Max. 60 m

Height difference between indoor and indoor units
Max. 15 m
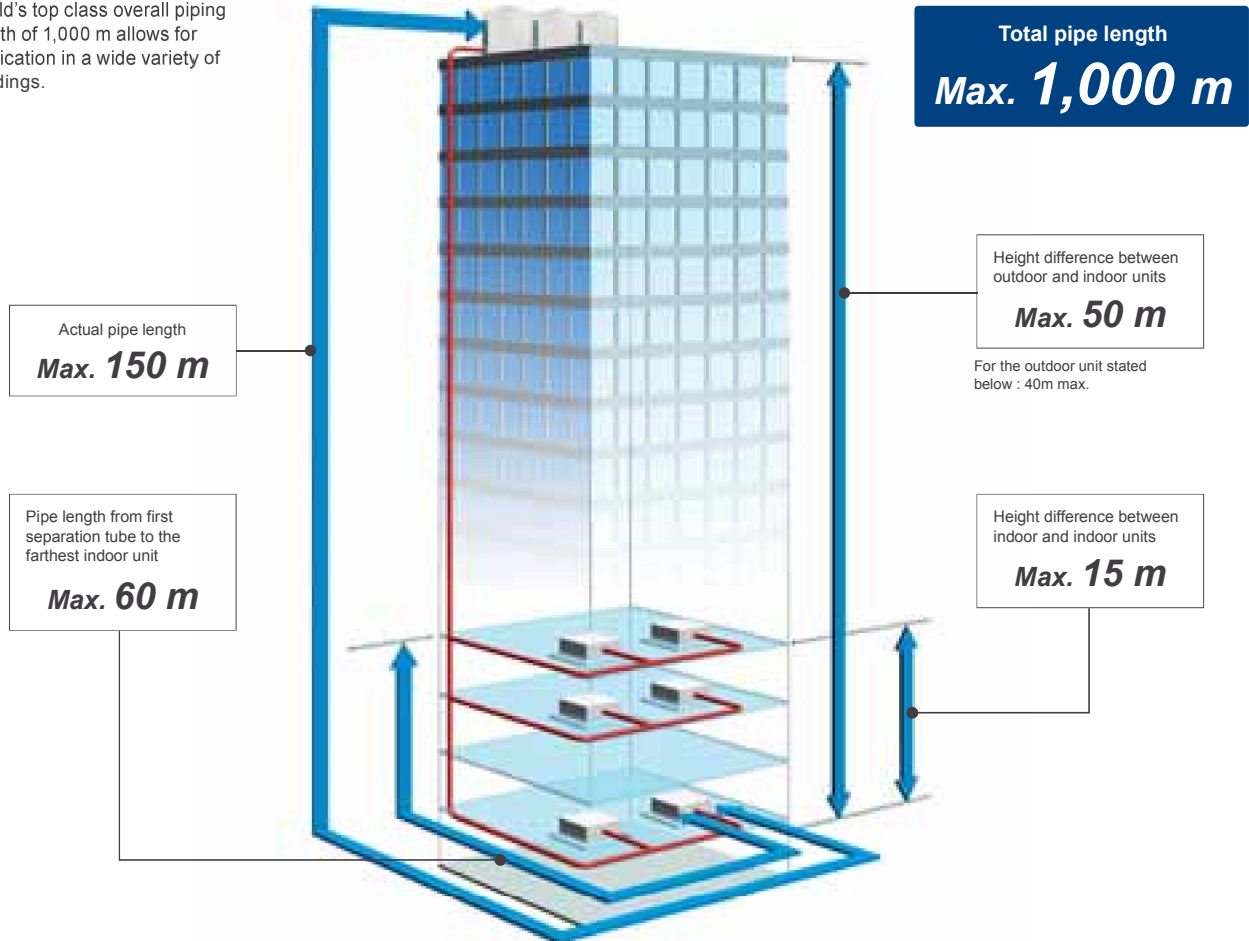
High static pressure of 80 Pa

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

Installation Example

Powerful discharge with an external static pressure of 80 Pa.

80 Pa
as standard

Previous model

V-II series

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

More Comfort

Non-stop oil recovery operation

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

Previous model

*1

Operation stopped at oil recovery

ON

OFF

Time

V-II series   (Heating operation)

Non-stop oil recovery operation

ON

Time
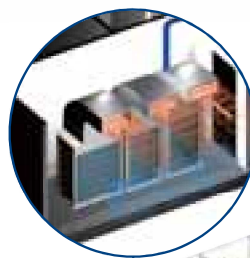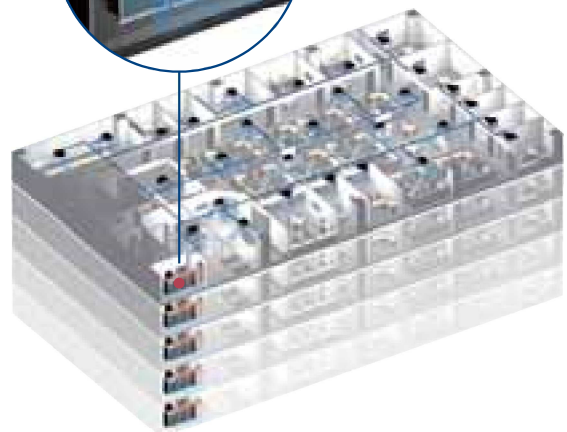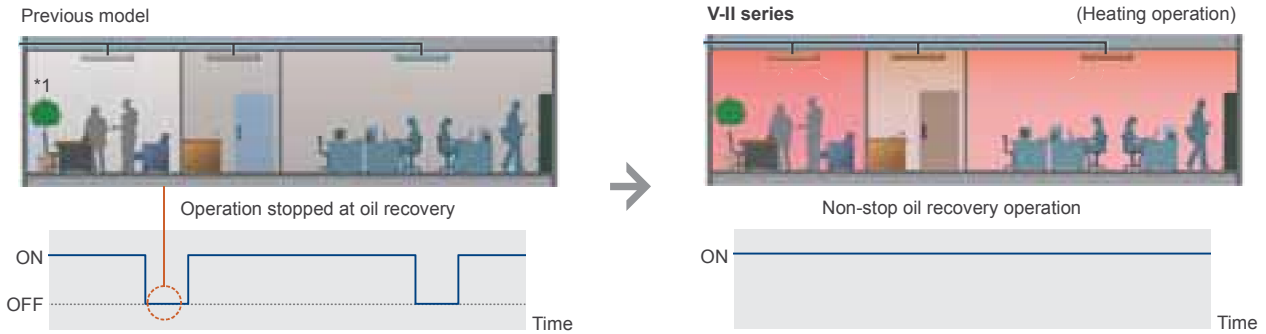
Easy Service & Maintenance

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

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

Continuous operation during maintenance

Non-stop operation

When servicing a specific indoor unit, maintenance can be performed even without turning off the other indoor units.

*Note: VR-II Series and J-II Series are not available.

Outdoor unit

Indoor unit

| ON | OFF | ON | ON | ON | ON |

Outdoor units lineup

• Combinations other than the followings are not recommended.

Space saving combination

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

Energy efficiency combination

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

Dimensions

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

690 (Bolt pitch)
80 530 (Bolt pitch)
8-12 × 17 (Hole)
732 (Bolt pitch)
1576
1690
765
930
1339
B A C
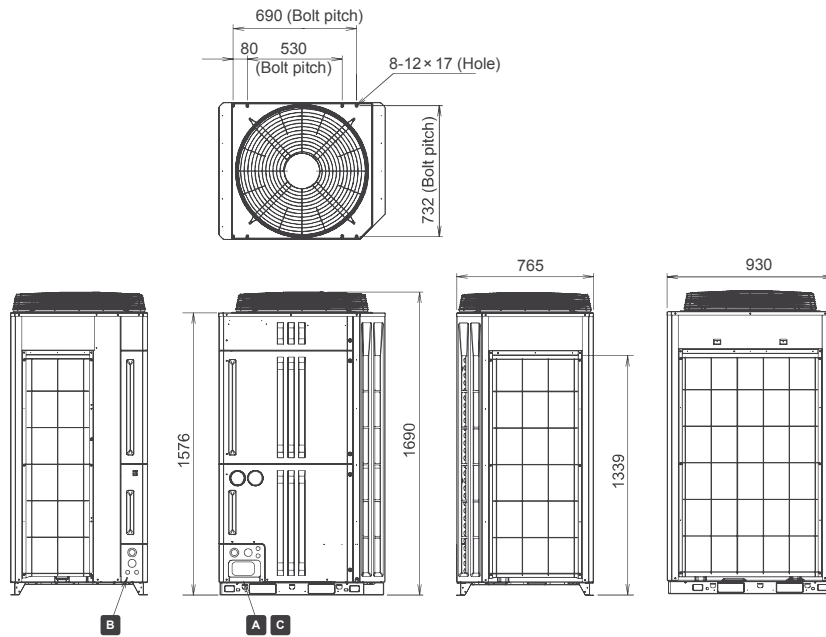
14,16HP : AJY126LALH / AJY144LALH

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

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

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

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

Outdoor units specifications

Space Saving Combination

Rating Capacity range	HP	8	10	12	14	16	18	20	22	24
Model name		AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY144LALH	AJY162LALH	AJY180LALH	AJY198LALH	AJY216LALH
Unit 1 / Unit 2 / Unit 3		AJYA72LALH	AJYA90LALH	AJY108LALH	AJY126LALH	AJY144LALH	AJYA90LALH / AJYA72LALH	AJY108LALH / AJYA72LALH	AJY108LALH / AJYA90LALH	AJY108LALH / AJY108LALH
Maximum Connectable Indoor Unit*[1]		15	16	17	21	24	32	32	32	35
Indoor unit connectable capacity	Cooling kW	11.2-33.6	14.0-42.0	16.8-50.2	20.0-60.0	22.5-67.5	25.2-75.6	28.0-83.8	30.8-92.2	33.5-100.5
Power source		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
Capacity	Heating kW	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0
Input power	Cooling kW	5.51	7.73	9.62	11.53	14.17	13.24	15.13	17.35	19.24
Input power	Heating kW	5.72	7.83	9.28	11.45	12.60	13.55	15.00	17.11	18.56
EER	Cooling W/W	4.07	3.62	3.48	3.47	3.18	3.81	3.69	3.54	3.48
COP	Heating W/W	4.37	4.02	4.04	3.93	3.97	4.17	4.17	4.03	4.04
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
Sound pressure level*[2]	Cooling dB(A)	56	58	58	60	61	60	60	61	61
Sound pressure level*[2]	Heating dB(A)	58	59	60	61	61	62	62	63	63
Maximum external static pressure	Pa	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
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
Dimensions	Width mm	930	930	930	1,240	1,240	930 x 2	930 x 2	930 x 2	930 x 2
Dimensions	Depth mm	765	765	765	765	765	765	765	765	765
Weight	kg	220	220	275	303	303	220 + 220	275 + 220	275 + 220	275 + 275
Refrigerant charge	kg	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
Connection pipe diameter	Liquid mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88
Connection pipe diameter	Gas mm	22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92
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
Operation range	Heating °C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Energy Efficiency Combination

Rating Capacity range	HP	16	22	24	26	28	30
Model name		AJY144LALHH	AJY198LALHH	AJY216LALHH	AJY234LALHH	AJY252LALHH	AJY270LALHH
Unit 1 / Unit 2 / Unit 3		AJYA72LALH / AJYA72LALH	AJY126LALH / AJYA72LALH	AJYA72LALH / AJYA72LALH / AJYA72LALH	AJYA90LALH / AJYA72LALH / AJYA72LALH	AJY108LALH / AJYA72LALH / AJYA72LALH	AJY126LALH / AJYA72LALH / AJYA72LALH
Maximum Connectable Indoor Unit*[1]		30	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	78.3	84.8
Capacity	Heating kW	50.0	70.0	75.0	81.5	87.5	95.0
Input power	Cooling kW	11.02	17.04	16.53	18.75	20.64	22.55
Input power	Heating kW	11.44	17.17	17.16	19.27	20.72	22.89
EER	Cooling W/W	4.07	3.66	4.07	3.88	3.79	3.76
COP	Heating W/W	4.37	4.08	4.37	4.23	4.22	4.15
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
Sound pressure level*[2]	Cooling dB(A)	59	61	61	62	62	63
Sound pressure level*[2]	Heating dB(A)	59	62	61	62	63	63
Maximum external static pressure	Pa	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
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
Dimensions	Width mm	930 x 2	930 + 1,240	930 x 3	930 x 3	930 x 3	930 x 2 + 1,240
Dimensions	Depth mm	765	765	765	765	765	765
Weight	kg	220 + 220	303 + 220	220 + 220 + 220	220 + 220 + 220	275 + 220 + 220	303 + 220 + 220
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
Connection pipe diameter	Liquid mm	12.70	15.88	15.88	15.88	15.88	19.05
Connection pipe diameter	Gas mm	28.58	34.92	34.92	34.92	34.92	34.92
Operation range	Cooling °C	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
Operation range	Heating °C	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length : 7.5 m; Height difference between outdoor unit and indoor unit : 0 m.
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
AJY234LALH	AJY252LALH	AJY270LALH	AJY288LALH	AJY306LALH	AJY324LALH	AJY342LALH	AJY360LALH	AJY378LALH	AJY396LALH	AJY414LALH	AJY432LALH
AJY126LALH AJY108LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH	AJY144LALH AJY144LALH	AJY108LALH AJY108LALH AJYA90LALH	AJY108LALH AJY108LALH AJY108LALH	AJY126LALH AJY108LALH AJY108LALH	AJY144LALH AJY108LALH	AJY144LALH AJY126LALH AJY108LALH	AJY144LALH AJY144LALH AJY108LALH	AJY144LALH AJY144LALH AJY126LALH	AJY144LALH AJY144LALH AJY144LALH
39	42	45	48	48	48	48	48	48	48	48	48
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
3-phase 4 wire, 400 V, 50Hz											
73.5	78.5	85.0	90.0	95.0	100.5	107.0	112.0	118.5	123.5	130.0	135.0
82.5	87.5	95.0	100.0	106.5	112.5	120.0	125.0	132.5	137.5	145.0	150.0
21.15	23.79	25.70	28.34	26.97	28.86	30.77	33.41	35.32	37.96	39.87	42.51
20.73	21.88	24.05	25.20	26.39	27.84	30.01	31.16	33.33	34.48	36.65	37.80
3.48	3.30	3.31	3.18	3.52	3.48	3.48	3.35	3.36	3.25	3.26	3.18
3.98	4.00	3.95	3.97	4.04	4.04	4.00	4.01	3.98	3.99	3.96	3.97
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 × 2	13,000 + 11,100 × 2	13,000 × 2 + 11,100	13,000 × 2 + 11,100	13,000 x 3	13,000 x 3
62	63	64	64	63	63	64	64	65	65	65	66
64	64	64	64	64	65	65	65	65	65	66	66
80	80	80	80	80	80	80	80	80	80	80	80
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
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 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
765	765	765	765	765	765	765	765	765	765	765	765
303 + 275	303 + 275	303 + 303	296 + 296	275 + 275 + 220	275 + 275 + 275	303 + 275 + 275	303 + 275 + 275	303 + 303 + 275	303 + 303 + 275	303 + 303 + 303	303 + 303 + 303
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
15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
-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
-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	40	42	44
AJY288LALHH	AJY306LALHH	AJY324LALHH	AJY360LALHH	AJY378LALHH	AJY396LALHH
AJY108LALH AJY108LALH AJYA72LALH	AJY126LALH AJY108LALH AJYA72LALH	AJY126LALH AJY126LALH AJYA72LALH	AJY126LALH AJY126LALH AJY108LALH	AJY126LALH AJY126LALH AJY126LALH	AJY144LALH AJY126LALH AJY126LALH
48	48	48	48	48	48
44.7-134.1	48.0-143.8	51.2-153.6	56.8-170.2	60.0-180.0	62.5-187.5
3-phase 4 wire, 400 V, 50Hz					
89.4	95.9	102.4	113.5	120.0	125.0
100.0	107.5	115.0	127.5	135.0	140.0
24.75	26.66	28.57	32.68	34.59	37.23
24.28	26.45	28.62	32.18	34.35	35.50
3.61	3.60	3.58	3.47	3.47	3.36
4.12	4.06	4.02	3.96	3.93	3.94
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
62	63	64	64	65	65
64	64	65	65	66	66
80	80	80	80	80	80
3.9 × 3 + 4.5 × 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
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
1,690	1,690	1,690	1,690	1,690	1,690
930 × 3	930 x 2 + 1,240	930 + 1,240 x 2	930 + 1,240 x 2	1,240 x 3	1,240 x 3
765	765	765	765	765	765
275 + 275 + 220	303 + 275 + 220	303 + 303 + 220	303 + 303 + 275	303 + 303 + 303	303 + 303 + 303
11.8 × 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
19.05	19.05	19.05	19.05	19.05	19.05
34.92	34.92	41.27	41.27	41.27	41.27
-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
-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.
 However ARXC72 and ARXC90 can be used signal connection.
*2 The noise value is the value when measured in an anechoic room.

When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

NEW Heat Recovery

Smart and cutting edge design
Extensive lineup from 8HP to 48HP in 2HP increment
Connectable indoor unit capacity ratio up to 150%
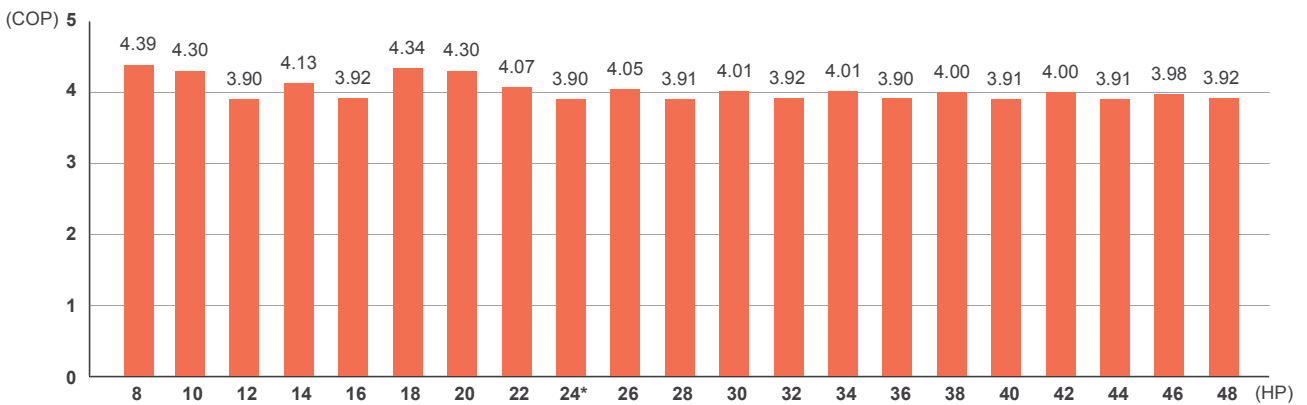
8, 10, 12HP   14, 16HP

Features

High Efficiency

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.
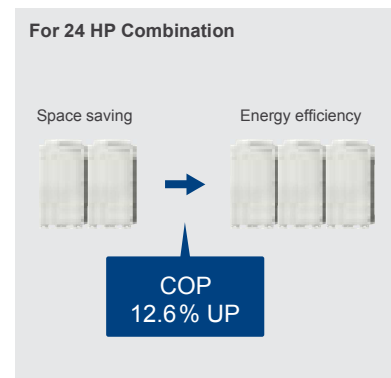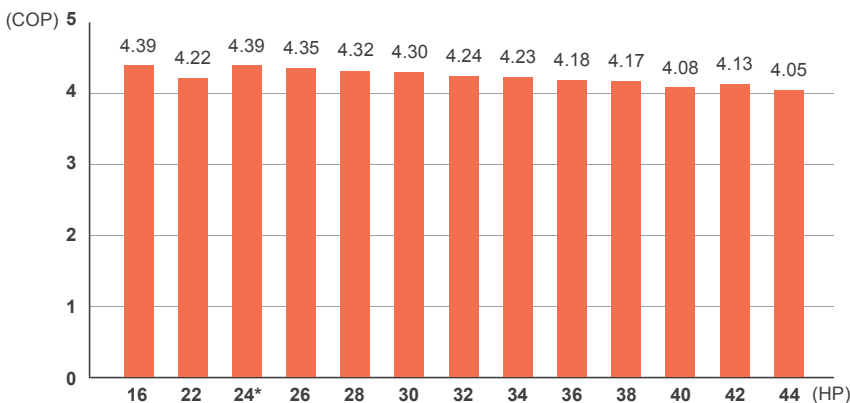
Space saving combination

(COP)

HP	8	10	12	14	16	18	20	22	24*	26	28	30	32	34	36	38	40	42	44	46	48
COP	4.39	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

Energy efficiency combination

(COP)

HP	16	22	24*	26	28	30	32	34	36	38	40	42	44
COP	4.39	4.22	4.39	4.35	4.32	4.30	4.24	4.23	4.18	4.17	4.08	4.13	4.05

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.
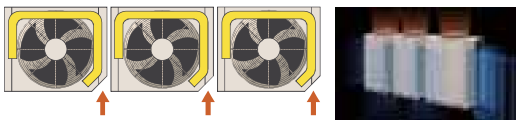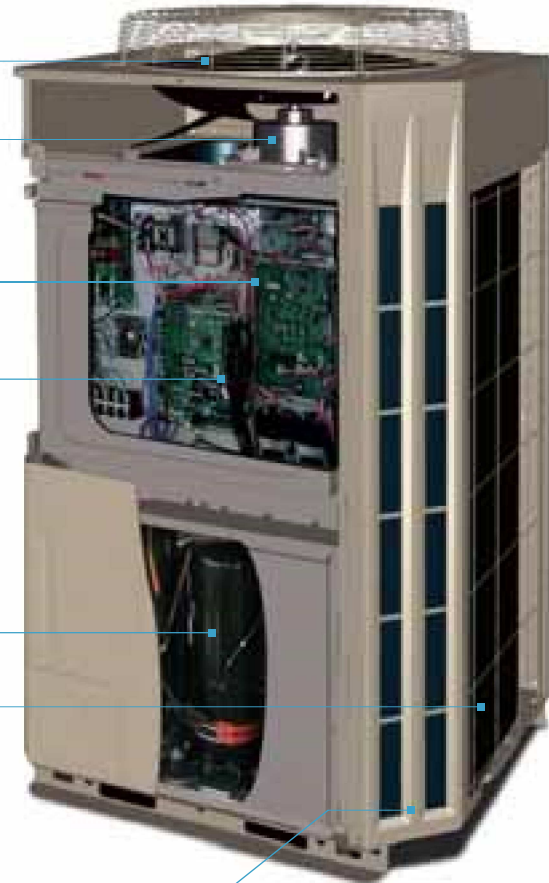
High efficient compressor Large capacity DC inverter compressor

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.
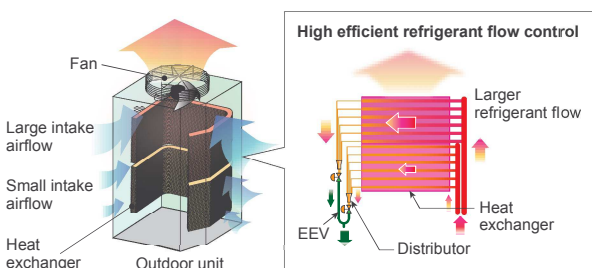
Front intake port
(corner cut air inhaling structure)

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

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 airflow.

Fan

Large intake airflow

Small intake airflow

Heat exchanger

Outdoor unit

High efficient refrigerant flow control

Larger refrigerant flow

Heat exchanger

EEV

Distributor

Sophisticated operation control

When multiple outdoor units are connected, sophisticated operation is performed by each compressor. Efficiency is improved by all compressors at part load and distributing refrigerant to all of the heat exchangers rather than to one compressor.

High efficient operation

Inefficient operation

Compressor Load level

Features

Design Flexibility

Overall piping length 1,000 m

Actual pipe length
Max. **165 m**

Pipe length from first separation tube to the farthest indoor unit
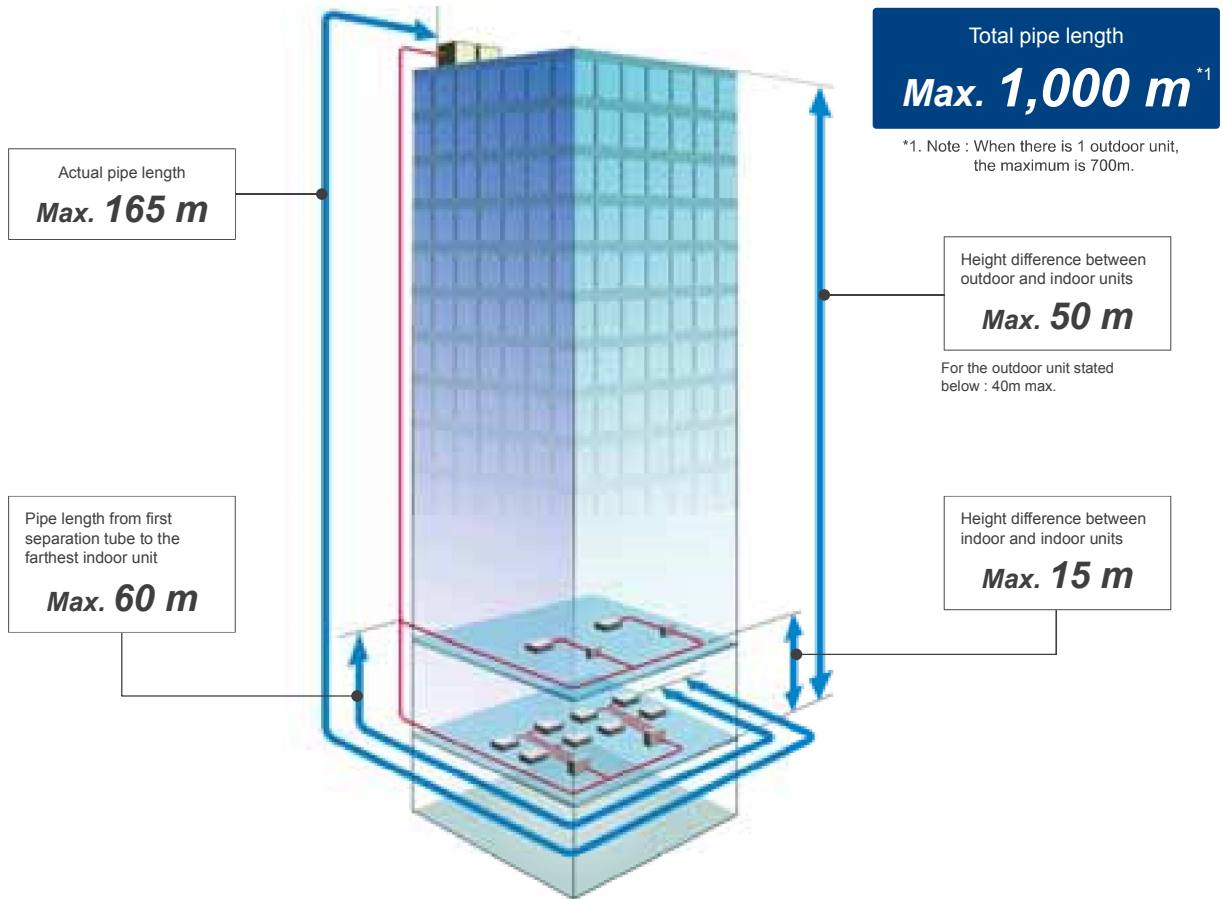*Max.* **60 m**

Total pipe length
Max. **1,000 m** [*1]

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

Height difference between outdoor and indoor units
Max. **50 m**

For the outdoor unit stated below : 40m max.

Height difference between indoor and indoor units
Max. **15 m**
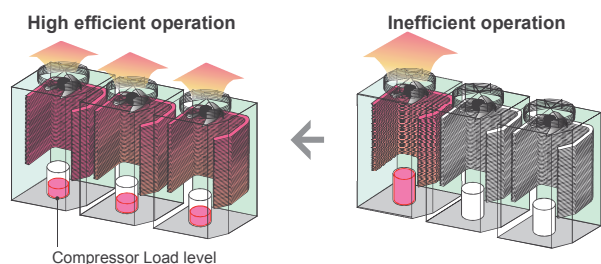
High static pressure of 80 Pa

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

Powerful discharge with an external static pressure of 80 Pa.

80 Pa
as standard
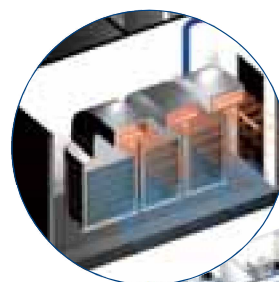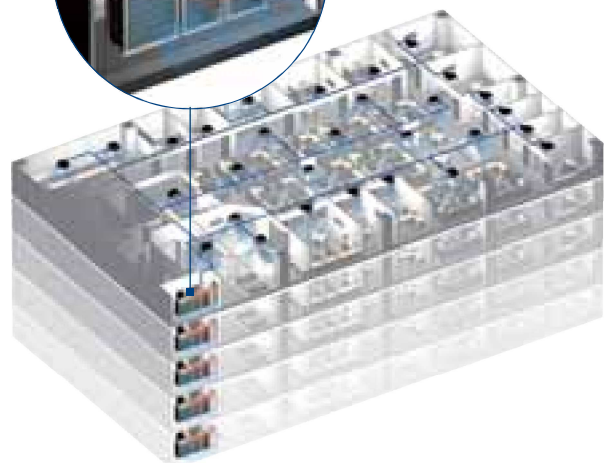
Installation Example

Previous model

V-II series

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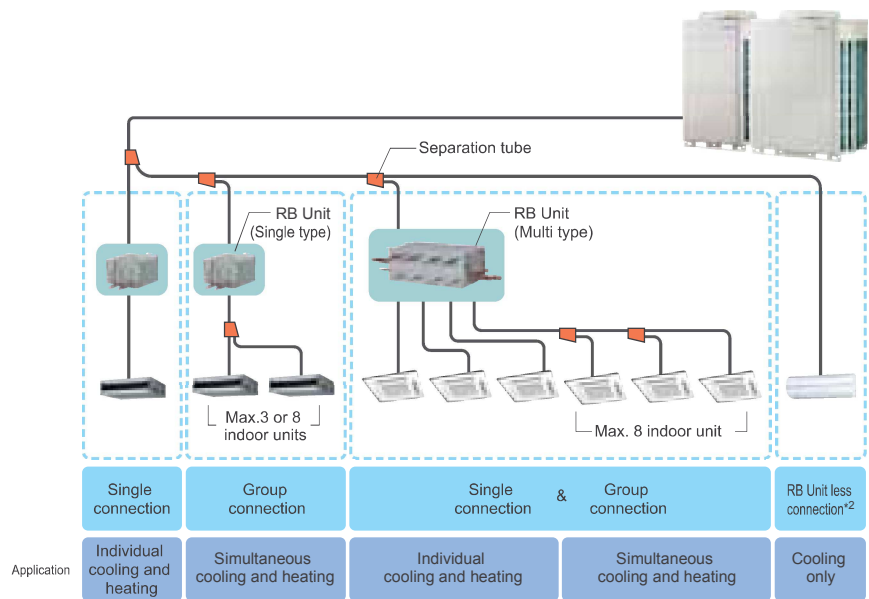
Flexible piping connection

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.

Separation tube

RB Unit (Single type)

RB Unit (Multi type)

Max.3 or 8 indoor units

Max. 8 indoor unit

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

Application

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

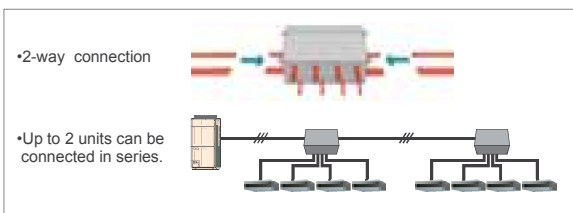## Easy Installation & Maintenance

Flexible installation of RB unit

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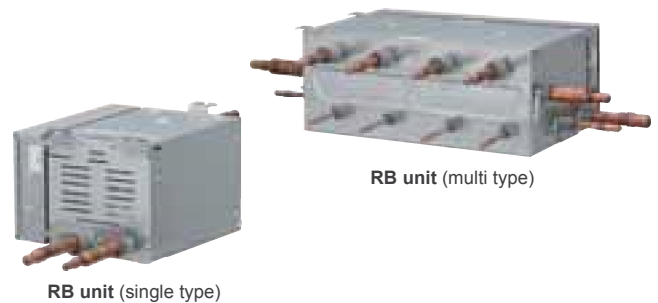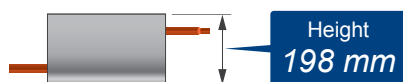
• Small & slim design saves space
• A drain pipe is not required
• The control box position can be changed to meet the installation conditions

Installation possible from either side for freedom of the control box

Installation possible on the upper-side for use in narrow space

• 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.

RB unit (multi type)

RB unit (single type)

Easy to maintenance in a narrow space
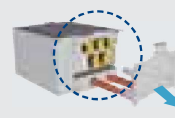
• Maintenance can be performed from the side.
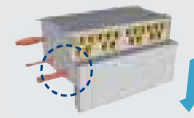
• Electrics box can be temporarily fixed by sliding down.

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

RB unit

Ceiling

Outdoor units lineup

•Combinations other than the followings are not recommended.

Space saving combination

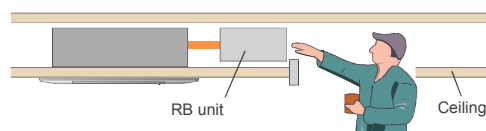| 22.4 kW (8HP)	28.0 kW (10HP)	33.5 kW (12HP)	40.0 kW (14HP)	45.0 kW (16HP)
AJYA72GALH UNIT : AJYA72GALH	AJYA90GALH UNIT : AJYA90GALH	AJY108GALH UNIT : AJY108GALH	AJY126GALH UNIT : AJY126GALH	AJY144GALH UNIT : AJY144GALH
50.4 kW (18HP)	56.0 kW (20HP)	61.5 kW (22HP)	67.0 kW (24HP)	73.0 kW (26HP)
AJY162GALH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

Energy efficiency combination

44.8 kW (16HP)	62.4 kW (22HP)	67.2 kW (24HP)	72.8 kW (26HP)	78.4 kW (28HP)
AJY144GALHH UNIT : AJYA72/A72GALH	AJY198GALHH UNIT : AJY126/A72GALH	AJY216GALHH UNIT : AJYA72/A72/A72GALH	AJY234GALHH UNIT : AJYA90/A72/A72GALH	AJY252GALHH UNIT : AJYA90/A90/A72GALH
84.0 kW (30HP)	90.4 kW (32HP)	96.0 kW (34HP)	102.4 kW (36HP)	108.0 kW (38HP)
AJY270GALHH UNIT : AJYA90/A90/A90GALH	AJY288GALHH UNIT : AJY126/A90/A72GALH	AJY306GALHH UNIT : AJY126/A90/A90GALH	AJY324GALHH UNIT : AJY126/126/A72GALH	AJY342GALHH UNIT : AJY126/126/A90GALH
113.0 kW (40HP)	120.0 kW (42HP)	125.0 kW (44HP)		
AJY360GALHH UNIT : AJY144/126/A90GALH	AJY378GALHH UNIT : AJY126/126/126GALH	AJY396GALHH UNIT : AJY144/126/126GALH		

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

690 (Bolt pitch)

80　530
(Bolt pitch)

8-12 × 17 (Hole)

732 (Bolt pitch)

765

930

1576

1690

1339

B

A　C
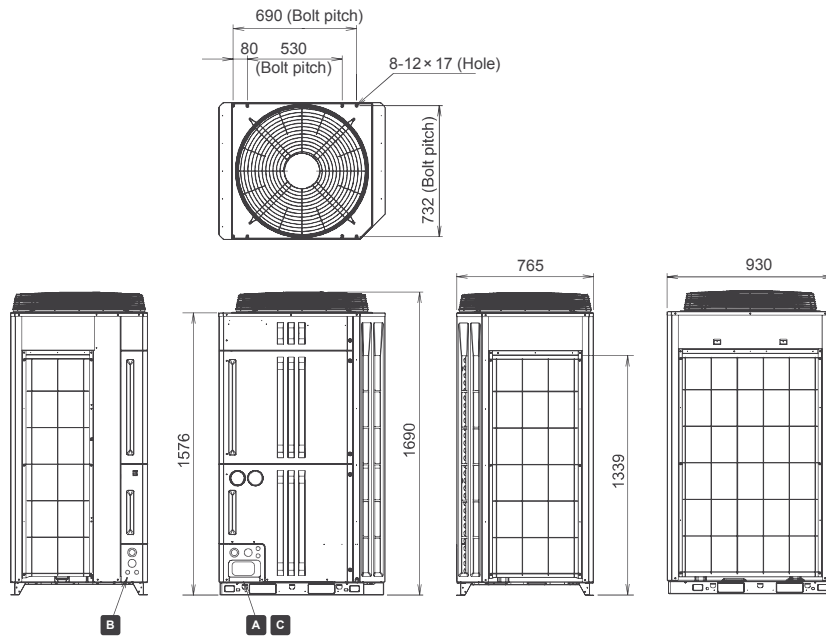
14,16HP : AJY126GALH / AJY144GALH

1000 (Bolt pitch)

80　840 (Bolt pitch)

8-12×7 (Hole)

732 (Bolt pitch)

765

1240

1690

B

A　C

A Front side knockout position

73
43
Ø 50
Power supply
cable port
95
75
10
100
125
199

Ø 34.5
Power supply cable port
Ø 43.7
Power supply cable port
Ø 22.2
Transmission cable port
Ø 22.2
Transmission cable port
Pipe port

B Left side knockout position

Ø 50
Power supply
cable port
Ø 22.2
Transmission
cable port

Ø 34.5
Power supply cable port
Ø 43.7
Power supply cable port
Ø 22.2
Transmission
cable port

C Bottom side knockout position

Top view
Pipe port
82
80
42
197

Outdoor units specifications

Space Saving Combination

Rating Capacity range	HP	8	10	12	14	16	18	20	22	24
Set Model name		AJYA72GALH	AJYA90GALH	AJY108GALH	AJY126GALH	AJY144GALH	AJY162GALH	AJY180GALH	AJY198GALH	AJY216GALH
Unit 1 Unit 2 Unit 3		AJYA72GALH	AJYA90GALH	AJY108GALH	AJY126GALH	AJY144GALH	AJYA90GALH AJYA72GALH	AJYA90GALH AJYA90GALH	AJY108GALH AJYA90GALH	AJY108GALH AJY108GALH
Maximum Connectable Indoor Unit*[1]		15	16	17	21	24	27	30	32	35
Indoor unit connectable capacity	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
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
Input power	Cooling	kW	5.45	7.11	9.75	11.34	13.61	12.56	14.22	16.86	19.50
	Heating		5.70	7.33	9.62	10.90	12.77	13.03	14.66	16.95	19.24
EER	Cooling	W/W	4.11	3.94	3.44	3.53	3.31	4.01	3.94	3.65	3.44
COP	Heating	W/W	4.39	4.30	3.90	4.13	3.92	4.34	4.30	4.07	3.90
Air flow late	m³/h		11,100	11,100	11,100	13,000	13,000	11,100×2	11,100×2	11,100×2	11,100×2
Sound pressure level*[2]	Cooling	dB(A)	56	58	59	60	61	60	61	62	62
	Heating		58	59	61	61	61	62	62	63	64
Maximum external static pressure	Pa		80	80	80	80	80	80	80	80	80
Compresor 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
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		930	930	930	1,240	1,240	930×2	930×2	930×2	930×2
	Depth		765	765	765	765	765	765	765	765	765
Weight	kg		262	262	262	286	286	262×2	262×2	262×2	262×2
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
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	°CDB	-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
	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

Energy Efficiency Combination

Rating Capacity range	HP	16	22	24	26	28	30
Set Model name		AJY144GALHH	AJY198GALHH	AJY216GALHH	AJY234GALHH	AJY252GALHH	AJY270GALHH
Unit 1 Unit 2 Unit 3		AJYA72GALH AJYA72GALH	AJY126GALH AJYA72GALH	AJYA72GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA72GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA72GALH	AJYA90GALH AJYA90GALH AJYA90GALH
Maximum Connectable Indoor Unit*[1]		24	33	36	39	42	45
Indoor unit connectable capacity	kW	22.4-67.2	31.2-93.6	33.6-100.8	36.4-109.2	39.2-117.6	42.0-126.0
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
Input power	Cooling	kW	10.90	16.79	16.35	18.01	19.67	21.33
	Heating		11.40	16.60	17.10	18.73	20.36	21.99
EER	Cooling	W/W	4.11	3.72	4.11	4.04	3.99	3.94
COP	Heating	W/W	4.39	4.22	4.39	4.35	4.32	4.30
Air flow late	m³/h		11,100×2	13,000+11,100	11,100×3	11,100×3	11,100×3	11,100×3
Sound pressure level*[2]	Cooling	dB(A)	59	61	61	62	62	63
	Heating		61	63	63	63	63	64
Maximum external static pressure	Pa		80	80	80	80	80	80
Compresor motor output	kW		7.5×2	11.0+7.5	7.5×3	7.5×3	7.5×3	7.5×3
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		930×2	1,240+930	930×3	930×3	930×3	930×3
	Depth		765	765	765	765	765	765
Weight	kg		262×2	286+262	262×3	262×3	262×3	262×3
Refrigerant charge	kg		11.8×2	11.8×2	11.8×3	11.8×3	11.8×3	11.8×3
Connection pipe diameter	Liquid	mm	12.70	15.88	15.88	15.88	15.88	19.05
	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	°CDB	-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
	Cooling/Heating		-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21

Note : Specifications are based on the following conditions.
Cooling : Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB.
Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

Pipe length : 7.5 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
AJY234GALH	AJY252GALH	AJY270GALH	AJY288GALH	AJY306GALH	AJY324GALH	AJY342GALH	AJY360GALH	AJY378GALH	AJY396GALH	AJY414GALH	AJY432GALH
AJY144GALH AJYA90GALH	AJY144GALH AJY108GALH	AJY144GALH AJY126GALH	AJY144GALH AJY144GALH	AJY108GALH AJY108GALH AJYA90GALH	AJY108GALH AJY108GALH AJY108GALH	AJY144GALH AJY108GALH AJYA90GALH	AJY144GALH AJY108GALH AJY108GALH	AJY144GALH AJY144GALH AJYA90GALH	AJY144GALH AJY144GALH AJY108GALH	AJY144GALH AJY144GALH AJY126GALH	AJY144GALH AJY144GALH AJY144GALH
39	42	45	48	50	53	57	60	63	64	64	64
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
3-phase 4 wire , 400 V, 50Hz											
73.0	78.5	85.0	90.0	95.0	100.5	106.5	112.0	118.0	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
20.72	23.36	24.95	27.22	26.61	29.25	30.47	33.11	34.33	36.97	38.56	40.83
20.10	22.39	23.67	25.54	26.57	28.86	29.72	32.01	32.87	35.16	36.44	38.31
3.52	3.36	3.41	3.31	3.57	3.44	3.50	3.38	3.44	3.34	3.37	3.31
4.05	3.91	4.01	3.92	4.01	3.90	4.00	3.91	4.00	3.91	3.98	3.92
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
63	63	64	64	63	64	64	65	65	65	65	66
63	64	64	64	65	66	65	66	65	66	66	66
80	80	80	80	80	80	80	80	80	80	80	80
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
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
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
765	765	765	765	765	765	765	765	765	765	765	765
286+262	286+262	286×2	286×2	286×3	286×3	286+262×2	286+262×2	286×2+262	286×2+262	286×3	286×3
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
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
-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

32	34	36	38	40	42	44
AJY288GALHH	AJY306GALHH	AJY324GALHH	AJY342GALHH	AJY360GALHH	AJY378GALHH	AJY396GALHH
AJY126GALH AJYA90GALH AJYA72GALH	AJY126GALH AJYA90GALH AJYA90GALH	AJY126GALH AJY126GALH AJYA72GALH	AJY126GALH AJY126GALH AJYA90GALH	AJY144GALH AJY126GALH AJYA90GALH	AJY126GALH AJY126GALH AJY126GALH	AJY144GALH AJY126GALH AJY126GALH
48	51	54	57	60	64	64
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
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
23.90	25.56	28.13	29.79	32.06	34.02	36.29
23.93	25.56	27.50	29.13	31.00	32.70	34.57
3.78	3.76	3.64	3.63	3.52	3.53	3.44
4.24	4.23	4.18	4.17	4.08	4.13	4.05
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
63	64	64	64	65	65	65
64	65	65	65	65	66	66
80	80	80	80	80	80	80
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
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
1,240+930×2	1,240+930×2	1,240×2+930	1,240×2+930	1,240×2+930	1,240×3	1,240×3
765	765	765	765	765	765	765
286+262×2	286+262×2	286×2+262	286×2+262	286×2+262	286×3	286×3
11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3	11.8×3
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
-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21	-10 to 21

*1 Minimum connectable indoor unit number is 2.

*2 The noise value is the value when measured in an anechoic room. When measured in the actual installed state, surrounding noise and reflections are received and the measured value is usually larger than the indicated value.

Indoor Unit Lineup

12 Types, 55 Models, Capacity range from 1.1 kW to 25.0 kW

Capacity range (kW)			1.1	2.2	2.8	3.6	4.5
Model code			4	7	9	12	14
Cassette	Compact Cassette		AUXB04GALH	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH
	Cassette						
Duct	Low Static Pressure Duct			ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH
	Slim Duct (With drain pump)		ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH
	Medium Static Pressure Duct						
	High Static Pressure Duct						
Floor	Floor (*Same as Ceiling models)					ABYA12GATH	ABYA14GATH
	Concealed Floor (*Same as Low Static Pressure Duct models)			ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH
	Slim Concealed Floor (*Same as Slim Duct models)		ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH
Ceiling	Ceiling					ABYA12GATH	ABYA14GATH
Wall Mounted	Wall Mounted		ASYA04GACH	ASYA07GACH	ASYA09GACH	ASYA12GACH	ASYA14GACH
	Wall Mounted (EEV external)		ASYE04GACH	ASYE07GACH	ASYE09GACH	ASYE12GACH	ASYE14GACH

With this model, connection of EV kit is necessary.

5.6	7.1	9.0	11.2	12.5	14.0	18.0	22.4	25.0
18	24	30	36	45	54	60	72	90
AUXB18GALH	AUXB24GALH							
AUXD18GALH	AUXD24GALH	AUXA30GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH			
ARXB18GALH								
ARXD18GALH	ARXD24GALH							
	ARXA24GBLH	ARXA30GBLH	ARXA36GBLH	ARXA45GBLH				
			ARXC36GATH	ARXC45GATH		ARXC60GATH*	ARXC72GATH*	ARXC90GATH*
ABYA18GATH	ABYA24GATH							
ARXB18GALH								
ARXD18GALH	ARXD24GALH							
ABYA18GATH	ABYA24GATH	ABYA30GATH	ABYA36GATH	ABYA45GATH	ABYA54GATH			
ASYA18GACH	ASYA24GACH	ASYA30GACH						

*: ARXC60/72/90LATH cannot be connected to J-IIS and J-II series.

Indoor Units Specifications

Compact Cassette

Model name			AUXB04GALH	AUXB07GALH	AUXB09GALH	AUXB12GALH	AUXB14GALH	AUXB18GALH	AUXB24GALH
Power source		V/Ø/Hz	230/1/50						
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	m^3/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 hose		VP [ø25 (I.D) ; ø32 (O.D.)]						
Cassette Grille	Model name		UTG-UFYC-W						
	Dimensions (H x W x D)	mm	50 x 700 x 700						
	Weight	kg	2.6						

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

Cassette

Model name			AUXD18GALH	AUXD24GALH	AUXA30GALH	AUXA36GALH	AUXA45GALH	AUXA54GALH
Power source		V/Ø/Hz	230/1/50					
Capacity	Cooling	kW	5.6	7.1	9.0	11.2	12.5	14.0
	Heating		6.3	8.0	10.0	12.5	14.0	16.0
Input power		W	39	46	59	80	99	119
Airflow rate	High	m^3/h	1,150	1,280	1,600	1,800	1,900	2,000
	Med		940	1,040	1,300	1,300	1,370	1,370
	Low		870	870	1,100	1,100	1,100	1,100
Sound pressure level	High	dB(A)	36	38	40	44	46	47
	Med		30	33	38	38	39	39
	Low		29	29	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 hose		VP25 [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].

Low Static Pressure Duct / Concealed Floor
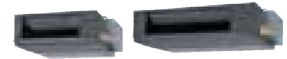
Model name			ARXB07GALH	ARXB09GALH	ARXB12GALH	ARXB14GALH	ARXB18GALH
Power source		V/Ø/Hz			230/1/50		
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6
	Heating		2.8	3.2	4.0	5.0	6.3
Input power		W	46	55	63	90	96
Airflow rate	High	m³/h	370	440	590	800	890
	Med		310	370	500	750	810
	Low		280	340	450	700	730
Static pressure range		Pa	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50
Standard static pressure			25	25	25	25	25
Sound pressure level	High	dB(A)	29	31	30	33	36
	Med		26	29	28	32	34
	Low		24	27	25	30	30
Dimensions (H x W x D)		mm	217 x 663 x 595			217 x 953 x 595	
Weight		kg	15			22	23
Connection pipe diameter	Liquid (Flare)	mm	ø6.35				ø9.52
	Gas (Flare)		ø12.70				ø15.88
	Drain hose		VP25 [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.

Slim Duct / Slim Concealed Floor

Model name			ARXD04GALH	ARXD07GALH	ARXD09GALH	ARXD12GALH	ARXD14GALH	ARXD18GALH	ARXD24GALH
Power source		V/Ø/Hz				230/1/50			
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	40	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 hose		VP25 [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.
*1: This value is under cooling operation.

Medium Static Pressure Duct

Model name			ARXA24GBLH	ARXA30GBLH	ARXA36GBLH	ARXA45GBLH
Power source		V/Ø/Hz		230/1/50		
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 hose		VP25 [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.

Indoor Units Specifications

High Static Pressure Duct

Model name			ARXC36GATH	ARXC45GATH	ARXC60GATH*	ARXC72GATH*	ARXC90GATH*
Power source		V/Ø/Hz	230/1/50				
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	405	715	730	1,110	1,250
Airflow rate	High	m³/h	2,600	3,500	3,500	3,900	4,300
	Med		1,950	3,000	3,000	3,300	4,000
	Low		1,450	2,460	2,460	3,000	3,500
Static pressure range		Pa	100 to 200	100 to 250	100 to 250	50 to 300	100 to 300
Standard static pressure			100	100	100	260	250
Sound pressure level	High	dB(A)	45	49	49	51	53
	Med		38	45	45	48	51
	Low		32	42	42	45	49
Dimensions (H x W x D)		mm	400 x 1,050 x 500			450 x 1,550 x 700	
Weight		kg	43	46		83	85
Connection pipe diameter	Liquid	mm	ø9.52 (Flare)			ø12.70 (Brazing)	
	Gas		ø19.05 (Flare)			ø22.22 (Brazing)	
	Drain hose		VP25 [ø25 (I.D.) ; ø32 (O.D.)]				

Note : Specifications are based on the following conditions.
    *: ARXC60/72/90LATH 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.

Floor / Ceiling

Model name			ABYA12GATH	ABYA14GATH	ABYA18GATH	ABYA24GATH
Power source		V/Ø/Hz	230/1/50			
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 hose		VP25 [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].

Ceiling

Model name			ABYA30GATH	ABYA36GATH	ABYA45GATH	ABYA54GATH
Power source		V/Ø/Hz	230/1/50			
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 hose		VP25 [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].

Wall Mounted

Model name			ASYA04GACH	ASYA07GACH	ASYA09GACH	ASYA12GACH	ASYA14GACH	ASYE04GACH	ASYE07GACH	ASYE09GACH	ASYE12GACH	ASYE14GACH
Power source		V/Ø/Hz	230/1/50					230/1/50				
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 hose		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.

Wall Mounted

Model name			ASYA18GACH	ASYA24GACH	ASYA30GACH
Power source		V/Ø/Hz	230/1/50		
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 hose		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].

Control system overview

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

For All AIRSTAGE™ series

Air Conditioning Individual Control

Wired Remote Controller (Touch panel)
UTY-RNRY

Wired Remote Controller
NEW UTY-RLRY

Simple Remote Controller
UTY-RSKY

Simple Remote Controller
UTY-RHKY
Without operation mode

Wireless Remote Controller
UTY-LNHY
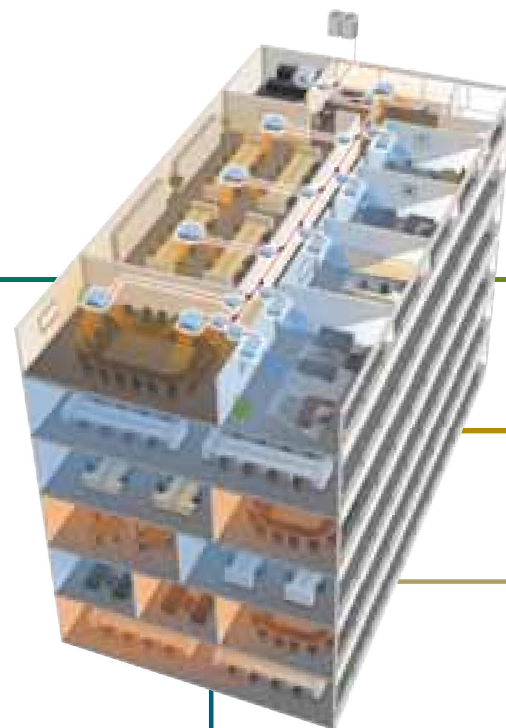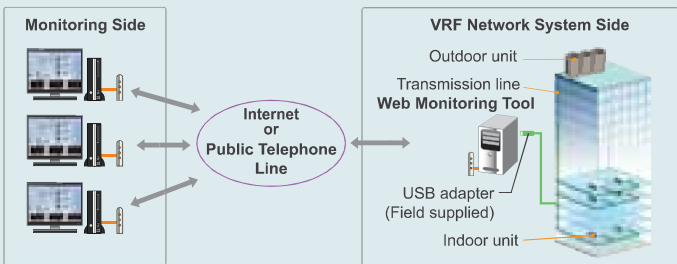
Service & Maintenance Tool

Web Monitoring System Software
UTY-AMGX

Monitoring Side

Internet or Public Telephone Line

VRF Network System Side

Outdoor unit
Transmission line
Web Monitoring Tool

USB adapter
(Field supplied)

Indoor unit

Service Tool Software
UTY-ASGX

USB Adaptor *2

(Field supplied)

Air Conditioning Centralized Control

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

USB Adaptor *2
(Field supplied)

Internet or Public Telephone Line

Remote/Monitoring side

Touch Panel Controller
UTY-DTGY

Central Remote Controller
UTY-DCGY

Group Remote Controller
UTY-CGGY

Network Convertor
UTY-VGGXZ1

Convertor / Adaptor (for external device)

BACnet® Gateway `Software`
UTY-ABGX

USB Adaptor *2
(Field supplied)

Network Convertor (BMS/LONWORKS®)
UTY-VLGX

KNX® Interface
FJ-RC-KNX-1i

MODBUS® Interface
FJ-RC-MBS-1

Wireless LAN Interface
`NEW` FJ-RC-WIFI-1

External Switch Controller
UTY-TEKX
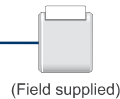
Card-key
(Field supplied)

BMS/BAS*1
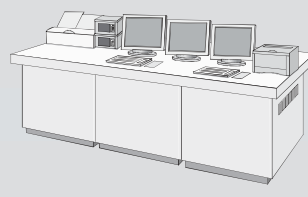
BMS, Home automation system
or
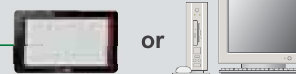
Internet device

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

Convertor / Adaptor (for system expansion)

Network Convertor
UTY-VGGXZ1

Single split

Signal Amplifier
UTY-VSGXZ1

Extended VRF network system

141
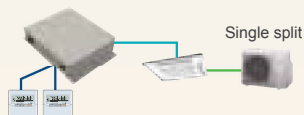
Comparison table of Controllers

Item	Wired Remote Controller (Touch panel) UTY-RNRY	Wired Remote Controller UTY-RLRY	Simple Remote Controller UTY-RSKY	Simple Remote Controller*1 UTY-RHKY	Wireless Remote Controller UTY-LNHY	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
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	—	—	—	—	—	—	●	●	●	●
Anti freeze setting	●	—	—	—	—	—	●	●	●	●
Economy mode setting	●	●	—	—	●	—	●	●	●	●
Display										
Failure	●	●	●	●	—	●	●	●	●	●
Defrosting	●	●	●	●	—	—	●	●	●	●
Current time	●	●	—	—	●	●	●	●	●	●
Day of week	●	●	—	—	—	●	—	●	●	●
R.C. prohibition	●	●	●	●	—	●	●	●	●	●
Cooling / heating priority	●	●	●	●	—	●	●	●	●	●
Address display	●	●	●	●	—	●	●	●	●	●
Room temp	●	—	—	—	—	—	—	—	—	—
Multi language	●	—	—	—	—	—	●	●	●	●
Summer time	●	—	—	—	—	—	●	●	●	●
Name registration	●	—	—	—	—	—	●	●	●	●
Backlight	●	—	●	●	—	—	●	●	—	—
2D floor layout / 3D building display	—	—	—	—	—	—	—	—	—	●
Timer										
Schedule timer — Period	Week	Week	—	—	—	Week	Week	Year	Year	Year
Schedule timer — On/off, Temp, Mode, Times per day	8	4	—	—	—	4	20	20	144	144
On/off timer	●	●	—	—	●	—	—	—	—	—
Sleep timer	—	—	—	—	●	—	—	—	—	—
Program timer	—	—	—	—	●	—	—	—	—	—
Auto off timer	●	●	—	—	—	—	—	—	—	—
Day off	●	●	—	—	—	—	●	●	●	●
Min. unit of timer setting (Minutes)	10 • 30	30	30	30	5	10	10	10	10	10
Control										
Status monitoring system	—	—	—	—	—	—	●	●	●	●
Electricity charge apportionment	—	—	—	—	—	—	—	—	○	●
Error history	●	●	●	●	—	●	●	●	●	●
Emergency stop	—	—	—	—	—	—	●*2	●*2	—	—
Remote management	—	—	—	—	—	—	—	—	○	●
Energy saving management	—	—	—	—	—	—	—	—	○	○
E-mail notification for malfunction	—	—	—	—	—	—	—	—	●	●
Key lock	● Child lock	● Child lock	—	—	—	● Child lock	● Password setting	● Password setting	● Password setting	● Password setting

*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) : 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)
- 2-wire type

High performance and compact size

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

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

Accurate and comfortable control

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

Room temperature display

Room temperature sensor
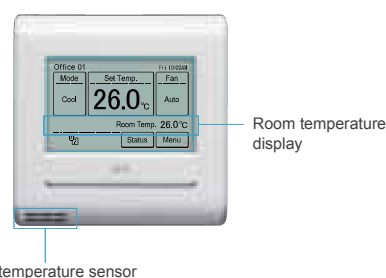
Various energy saving control

Auto OFF timer

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

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

ON   OFF ON   Auto OFF   ON   Auto OFF
1 hour   1 hour
Normal Time   Over Time
8   17   24
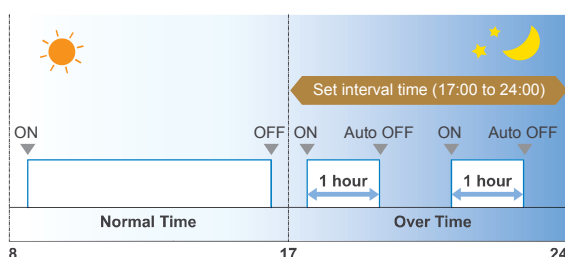
Ex.) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off
    Set off time : 1 hour

2 schedules Weekly Timer

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

Schedule 1 (Summer schedule)

Setting temp.
26°C ON   OFF   OFF
24°C
8:40 11:40   17:30   20:40
Time
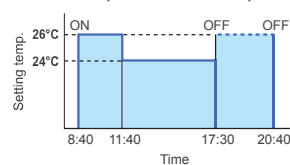
Schedule 2 (Winter schedule)
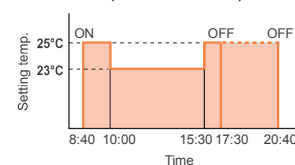
Setting temp.
25°C ON   OFF   OFF
23°C
8:40 10:00   15:30 17:30 20:40
Time

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)

Specifications

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

DC12 V is supplied by the indoor unit.

Controller

NEW **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

High performance and compact size

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

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

High visibility and easy operation

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

Set contents can be displayed clearer with large LCD.

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

Auto-off timer

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

Operation status

ON

OFF

Auto OFF   Auto OFF

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

Set temperature auto return

• The setting temperature automatically returns to the previously set temperature.
• The time range in which the set temperature can be changed is 30 to 120 minutes.

Cooling operation

Setting temp.
Set temperature change   Auto return
24°C
22°C
Settable time range 30 to 120 minutes
AM11:40   PM1:40   Time

Heating operation

Setting temp.
Set temperature change   Auto return
25°C
23°C
Settable time range 30 to 120 minutes
AM11:40   PM1:40   Time
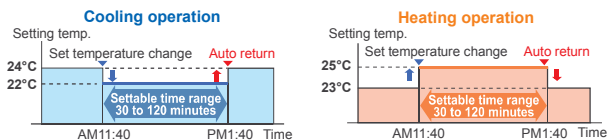
Weekly timer function

• Not only time setting On / Off, but also setting of the operation mode and set temperature can be set by Weekly timer function.
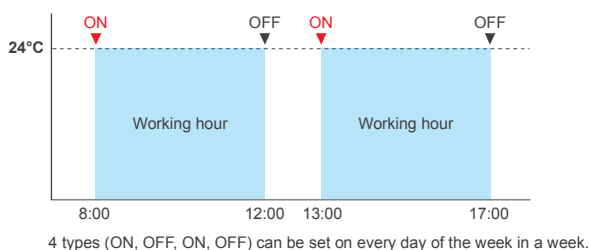
24°C

ON   OFF   ON   OFF

Working hour   Working hour

8:00   12:00   13:00   17:00

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

Set temperature upper and lower limit setting

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

During Cooling

30°C

25°C

18°C

Original temp. setting range   Lower limit setting

During Heating

30°C

25°C

16°C

Original temp. setting range   Upper limit setting
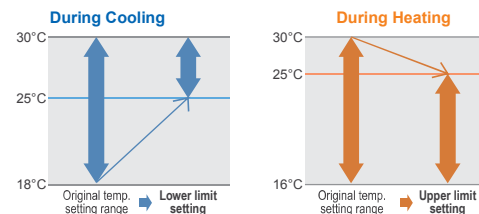
Specifications

Model name	UTY-RLRY
Power supply	DC 12V
Dimension (H × W × D) (mm)	120 × 120 × 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.
- 3-wire type

Without operation mode

Easy-to-use 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.

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.

Simple installation

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

European switch box   JIS built-in box

60mm

83.5mm
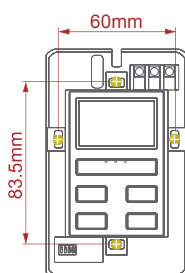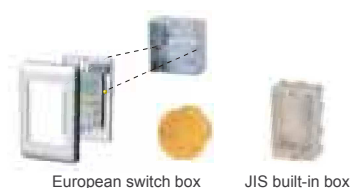
Functions

Model Operation	UTY-RSKY	UTY-RHKY
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.

Specifications

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

DC12 V is supplied by the indoor unit.

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.

Built-in timers

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.

Easy installation and operation

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

•Wide and precise transmitting range.

System addressing

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

Transmission line

Outdoor unit   Indoor unit

Wireless
Remote Controller
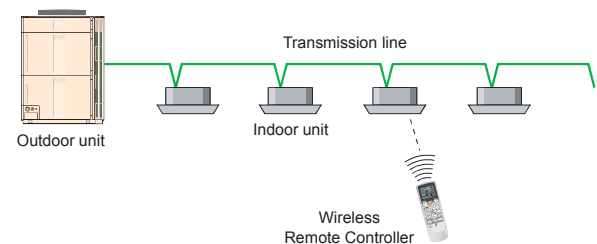
IR Receiver Unit : UTB-YWC
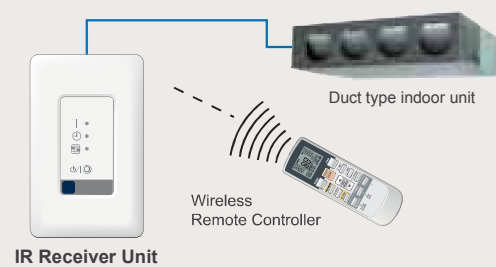
Necessary to control for all duct type by Wireless Remote Controller

Duct type indoor unit

Wireless
Remote Controller

IR Receiver Unit

IR Receiver Unit : UTY-LRHYB1
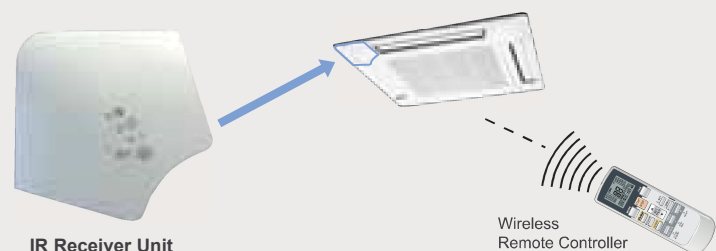
Cassette type indoor unit can be controlled with Wireless Remote Controller

Wireless
Remote Controller

IR Receiver Unit

Specifications

Model name	UTY-LNHY	UTB-YWC	UTY-LRHYB1
Battery	1.5 V (R03 / LR03 / AAA) x 2	DC 12 V	DC 12 V
Dimensions (H x W x D) (mm)	170 x 56 x 19	145 x 90 x 30	193.9 x 193.9 x 31.2
Weight (g)	85	150	140

DC12 V is supplied by the indoor unit.

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 Convertor is required to connect Group Remote Controllers to a VRF network system. (Network Convertor allows up to 4 Group Remote Controllers)
- 3-wire type
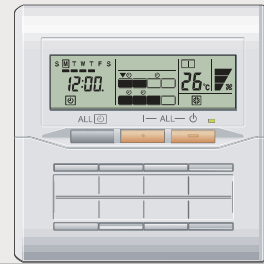
Control up to 8 remote controller groups

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

Refrigerant system 1

Refrigerant system 2

Hotel

Office & Lounge

Restaurant

Lobby

Guest room

Network Convertor

Office room

Lounge

Restaurant

Lobby

1 **2**

Group Remote Controller

Group Remote Controller 1:
To control office room, lounge, restaurant and lobby
(8 remote controller groups)

Group Remote Controller 2:
To control guest room
and launge
(7 remote controller groups)
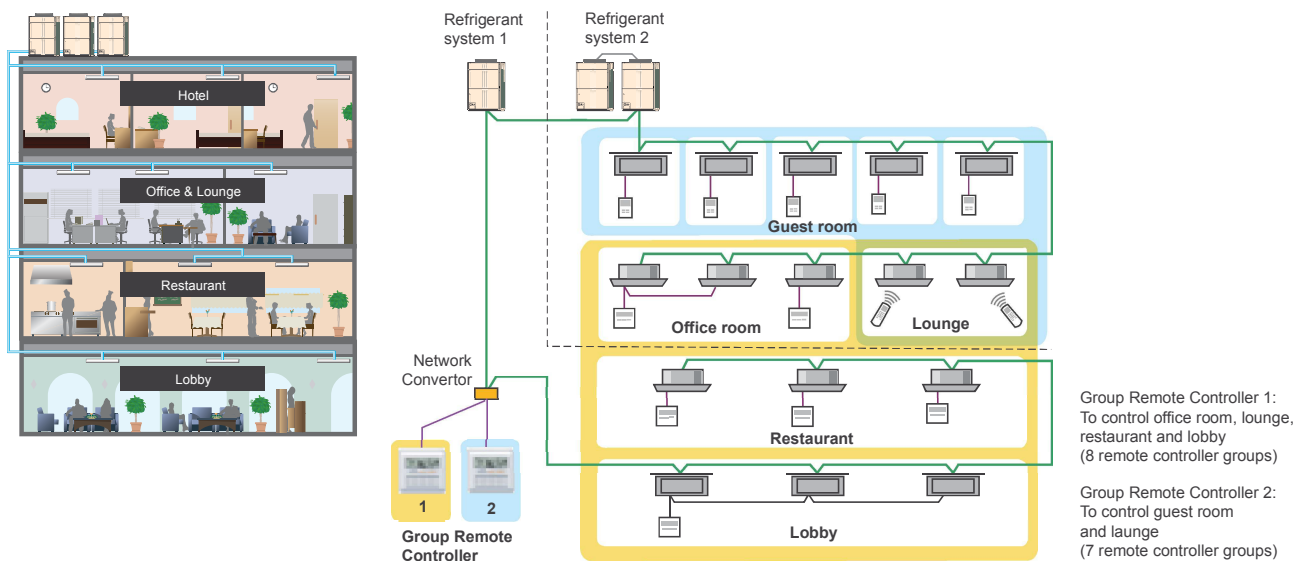
High performance and compact size

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

Central control + **ON/OFF control** + **Weekly timer** →
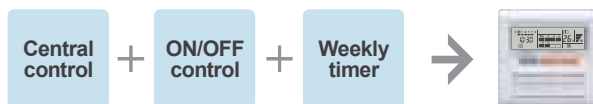
Built-in weekly timers

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 12 V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	200

DC12 V is supplied by the indoor unit.

Controller

Central Remote Controller : UTY-DCGY

Central Remote Controller fits small- and medium-sized buildings and tenants.

• Individual control and monitor of 100 indoor units
• 5 inch TFT color screen
• High visibility and easy operation
• External input / output contact
• Detachable power supply unit
• Corresponds to 7 different languages like English, Chinese, French, German, Spanish, Russian, Polish.
• 2-wire type

System overview

• It allows multiple indoor units grouping (Max.16 groups controlled)

• Interlock with external device

Group : Hallway

Group : 3F

Group : Division A

Group : Division B

Group : Division C

Group : 2F

Group : Tenant A

Group : Tenant B

Group : Tenant C

Emergency stop function
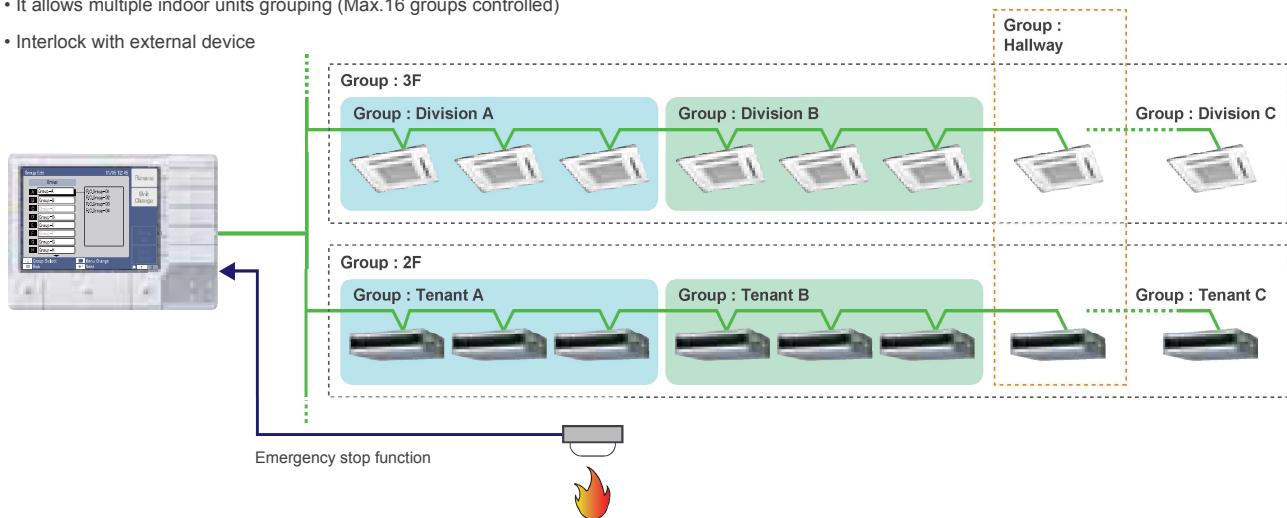
Easy Installation

• 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

SW BOX

Wall

Control panel + Power supply unit

Setting pattern 2

Ceiling

Power supply unit

Control panel

Wall
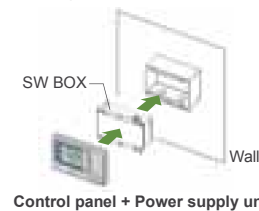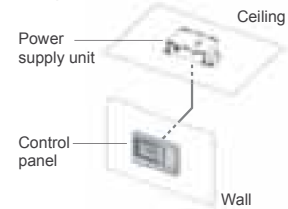
Functions

• Diverse control of indoor units
• Automatic clock adjustment
• Weekly timer
• Error history

Specifications

Model name	UTY-DCGY	
	Control Panel	Power Supply Unit
Power Supply	DC 5 V	100-240 V, 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

- 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.
- 2-wire type

Easy operation

- Wide range of simple-to-understand icons

- Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon

- Up-to-date status display

- Background color identifies current control operation blue for monitoring, green for operational control

Functions

Individual control
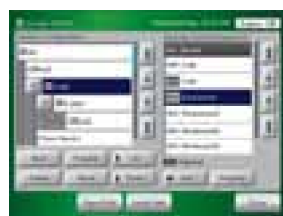
Flexible grouping

Schedule control

Indoor units operation monitoring

Automatic clock adjustment

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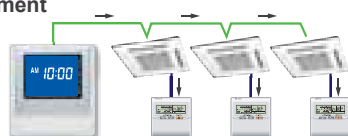
Versatility

- **Emergency stop function:** Air conditioner can be turned off through the external input control

- The stored data can be transferred via USB port

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

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

Emergency stop function

Data transfer available by USB
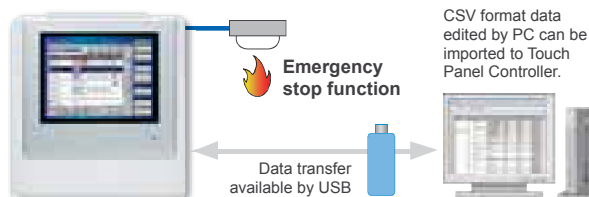
Easy installation

- Touch Panel Controller is easily mounted to the wall.

- Flat back surface allows to be installed wherever it is needed.

- No additional component is required for installation.

Specifications

Model name	UTY-DTGY
Power Supply	100-240 V 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 : UTY-APGX (Software)

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.
- 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

System Controller Lite : UTY-ALGX (Software) **N E W**

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 customoers a wide range of choice.
- Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

Max. controllable
1
VRF network systems

Max. controllable
100
outdoor units

Max. controllable
400
indoor units

High visibility and Easy operation

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

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

Click & Operate the whole building !

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

Click & Operate any specified unit(s)!

The display is easily changed by pressing the button.

Site view

List view

Batched control of freely defined groups

Click & Operate the whole floor !

Building view

Batched control of freely selected units

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

Floor view

Click & Operate the unit !

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.

Diverse control of indoor unit

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

Remote controller prohibition

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

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.

Data base import/export

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

Automatic clock adjustment

The time setting of each controller can be set in batch automatically.
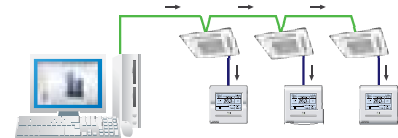
Electricity charge apportionment [Standard] for System Controller
[Option] for System Controller Lite UTY-PLGXA1

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

Electric power company
Electricity charges (air conditioning)
RB Unit   Signal transmission line
System Controller
Power distribution board
Outdoor unit
3Ø, 4 wire 400V, 50Hz
Power distribution board
Tenant A-1 Tenant A-2 Tenant A-3
Tenant A-4 Tenant A-5 Tenant A-6
Tenant B-1 Tenant B-2 Tenant B-3
Tenant C-1 Tenant C-2 Tenant C-3   1Ø, 2wire 230V, 50Hz

Energy used by each unit is calculated
Tenant A   Tenant B
Tenant C

Energy apportioned by the outdoor unit to each indoor unit is calculated
Tenant A   Tenant B
Tenant C

Electricity charges by tenant are calculated
The distribution ratio for energy used by each indoor unit is calculated and the electricity charges for the energy used by each indoor unit are calculated from the total electricity charges.
Tenant A   Tenant B   Tenant C
Electric Bill   Electric Bill   Electric Bill

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

151

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

VRF Controller

Internet or Telephone Line or LAN

VRF Explorer

Central Monitoring Screen for all Properties

Special Property Detailed Monitoring Screen
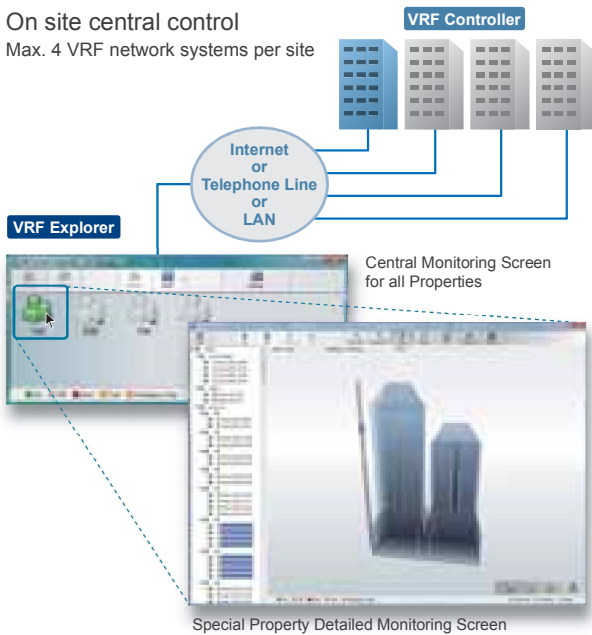
Remote central control
1 VRF Explorer can control or monitor up to 10 sites.

VRF Explorer

VRF Controller
A maximum of 10 locations, such as offices or factories

Building management company, management center, etc.

Internet or Telephone Line or LAN
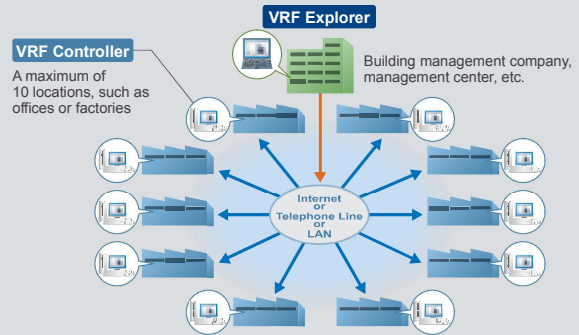
1 VRF Controller can be monitored from any number of VRF Explorers (Up to 5 connections simultaneously).

VRF Explorer — Building Management Company A (In charge of the day shift)

VRF Explorer

VRF Explorer

Building Management Company B (In charge of the night shift)

Internet or Telephone Line or LAN

Office Management Center

VRF Explorer

VRF Controller

Security Company

VRF Explorer

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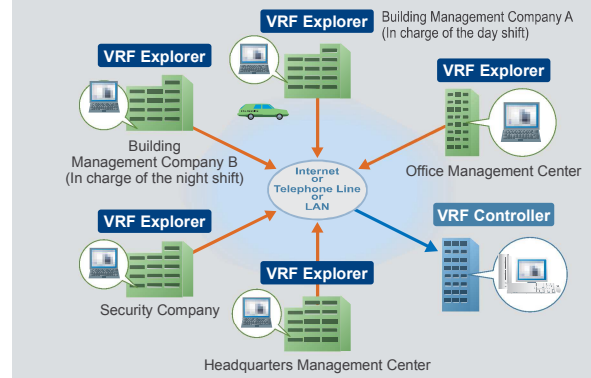
Energy saving management
Option for System Controller UTY-PEGX
Option for System Controller Lite UTY-PLGXE1

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

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

Energy Saving Management Main Screen
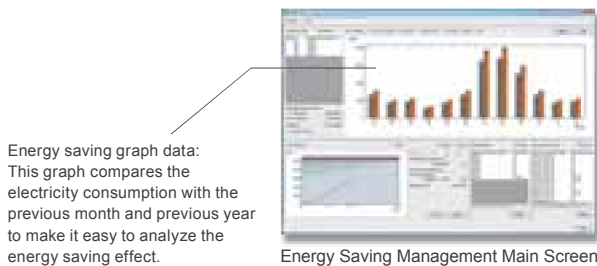
Peak cut operation

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

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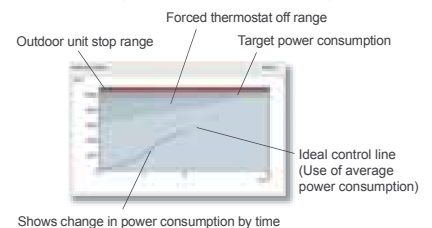
Indoor unit rotation operation

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

Indoor unit rotation screen
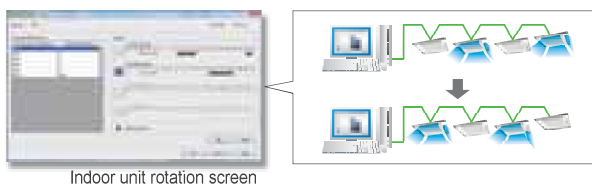
Outdoor unit capacity save

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

Hot day of summer

Cold day of winter

Outdoor unit capacity control screen

Power consumption

Outdoor unit capacity upper limit

Time
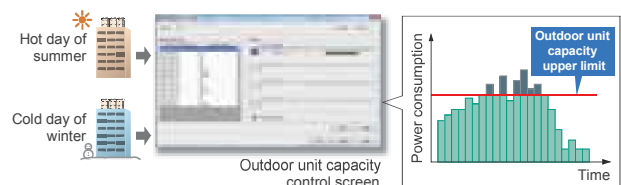
FUNCTIONS SUMMARY

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		○	-	-	-	-	-
	2D graphical layout view		○	-	-	-	-	-
	List display		○	-	○	-	-	-
	Tree display		○	-	○	-	-	-
	Group display		○	-	○	-	-	-
Error management	Error notification		○	-	○	-	-	-
	Audible alarm		○	-	○	-	-	-
	Error e-mail notification		○	-	○	-	-	-
History	Error history		○	-	○	-	-	-
	Operation history		○	-	○	-	-	-
	Control history		○	-	○	-	-	-
Operation control	Individual control	On/Off	○	-	○	-	-	-
		Operation mode	○	-	○	-	-	-
		Room temperature	○	-	○	-	-	-
		Fan speed	○	-	○	-	-	-
		Air flow direction	○	-	○	-	-	-
		Economy mode	○	-	○	-	-	-
		Room temperature set point limitation	○	-	○	-	-	-
		Test operation	○	-	○	-	-	-
		Antifreeze	○	-	○	-	-	-
	Individual management	Remote control prohibition setting	○	-	○	-	-	-
		Temperature upper and lower limit setting	○	-	○	-	-	-
		Filter sign reset	○	-	○	-	-	-
	Other	Memory operation	○	-	○	-	-	-
		Pattern operation	○	-	○	-	-	-
Schedule	Annual Schedule		○	-	○	-	-	-
	Special day setting		○	-	○	-	-	-
	On /off per day		72	-	72	-	-	-
	On / off per week		504	-	504	-	-	-
	Day off		○	-	○	-	-	-
	Min. unit of timer setting (Minutes)		10	-	10	-	-	-
	Low noise mode Weekly schedule		○	-	○	-	-	-
Remote managemment	Remote monitoring		○	-	-	○	-	-
	Remote operation control		○	-	-	○	-	-
	Remote function setting		○	-	-	○	-	-
Electricity charge apportionment	Apportionment charge/bill calculation		○	-	-	-	○	-
	Tenant (block) setting		○	-	-	-	○	-
	Common facilities apportionment setting		○	-	-	-	○	-
	Rated power consumption allotment setting		○	-	-	-	○	-
	Individual calculation at cooling and heating		-	○*	-	-	○	-
	Electricity meter supported		-	○	-	-	○	-
Energy saving management	Indoor unit rotation		-	○	-	-	-	○
	Peak cut control		-	○	-	-	-	○
	Outdoor unit capacity save		-	○	-	-	-	○
	Record of energy saving operation		-	○	-	-	-	○
	Energy saving information		-	○	-	-	-	○
	Power consumption monitor		-	○	-	-	-	○
	Electricity meter supported		-	○	-	-	-	○
Others	Database import/export		○	-	○	-	-	-
	Automatic clock adjustment		○	-	○	-	-	-
	Multi language		7 languages	-	7 languages	-	-	-

○ : Available.　－ : Not available.

*:Power calculation application software is necessary, please contact the local FGL representative.

Personal computer system requirements

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	• For Windows Vista® and Windows® 7 (32-bit): 2 GB or more • For Windows® 7 (64-bit), Windows® 8, and Windows® 8.1: 4 GB or more
HDD	40 GB or more of free space
Display	1024 x 768 or higher resolution
Interface	USB port is required for each of the followings for Server PC ; • Wibu Key (Software protection key) • Echelon® U10 USB Network Interface (Required for each VRF Network) Ethernet port is required for remote connection using internet.
Accelerator	Microsoft® DirectX® 9.0c compatible
Software	Adobe® Reader® 9.0 or later
Optical drive	DVD-ROM drive

Personal computer must be field supplied.
U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R

PACKING LIST

Type	For System controller		For System controller Lite			
	System Controller	(Option) Energy manager	System Controller Lite	(Option) Remote access	(Option) Electricity charge apportionment	(Option) 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   (Software)

- 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.

DVD-ROM (Software)   **Software Protection Key**

Max. controllable **4** VRF network systems

Max. controllable **400** outdoor units

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

Installation example

VRF network system 1

RB Unit
Indoor unit   Outdoor unit
USB adaptor *1 (Field supplied)

VRF network system 2

RB Unit
Indoor unit   Outdoor unit
USB adaptor (Field supplied)
USB adaptor (Field supplied)
USB adaptor (Field supplied)

Max. 4 VRF network systems

BACnet®

BACnet® Gateway (UTY-ABGX)
DVD-ROM (Software)   Software Protection Key

BACnet® Operator Workstation (B-OWS)

Lighting facilities
Security system
Automatic fire alarm interface
Ventilation system

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

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

Personal computer system requirements

	UTY-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	• For Windows Vista® and Windows® 7 (32-bit): 2 GB or more • For Windows® 7 (64-bit), Windows® 8, and Windows® 8.1: 4 GB or more
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
	  * Required maximum USB port numbers depend 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.
WibuKey (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 must be field supplied.
U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel   Model Number : 75010R

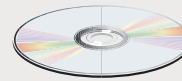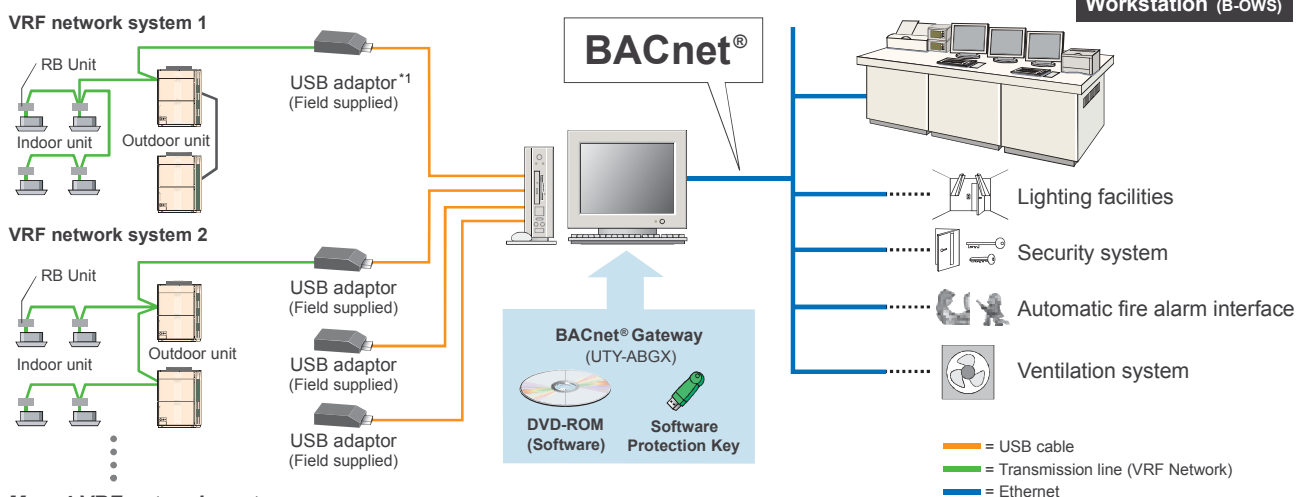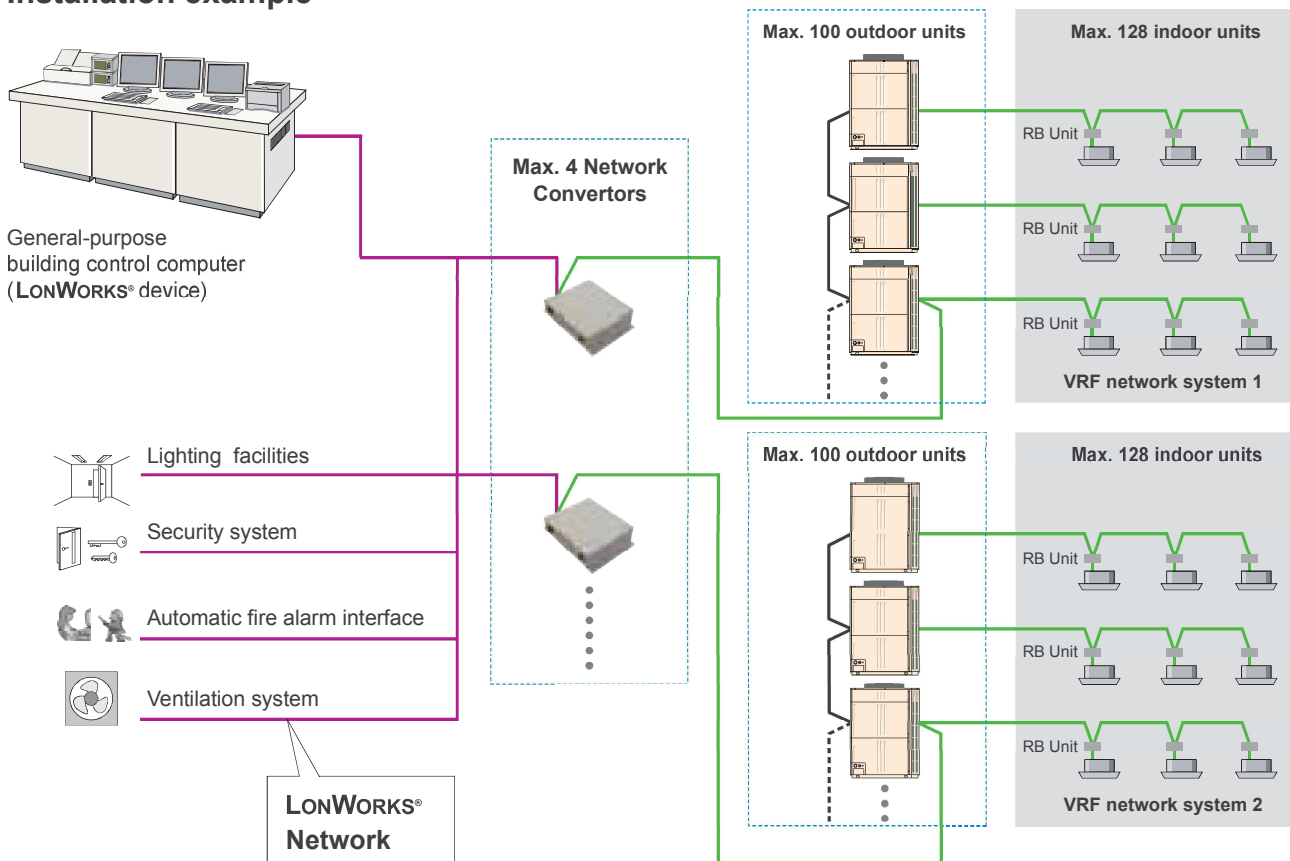## Network Convertor for LONWORKS® : UTY-VLGX

•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®

Installation example

Max. 100 outdoor units

Max. 128 indoor units

RB Unit

RB Unit

RB Unit

VRF network system 1

General-purpose
building control computer
(LONWORKS® device)

**Max. 4 Network
Convertors**

Lighting facilities

Security system

Automatic fire alarm interface

Ventilation system

**LONWORKS®
Network**

Max. 100 outdoor units

Max. 128 indoor units

RB Unit

RB Unit

RB Unit

VRF network system 2

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)

2-φ5
For M4×20Lscrews

95 (Hole pitch)

95 (Hole pitch)

211

4-φ5
For M4×20L screws

241.6
272 (Hole pitch)
288

67
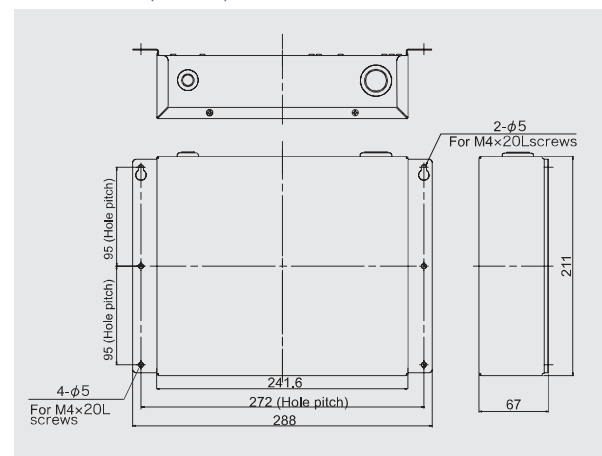
KNX® Interface : FJ-RC-KNX-1i

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.

KNX Network

Home Controller

Lighting facilities

Security system

Automatic fire alarm interface
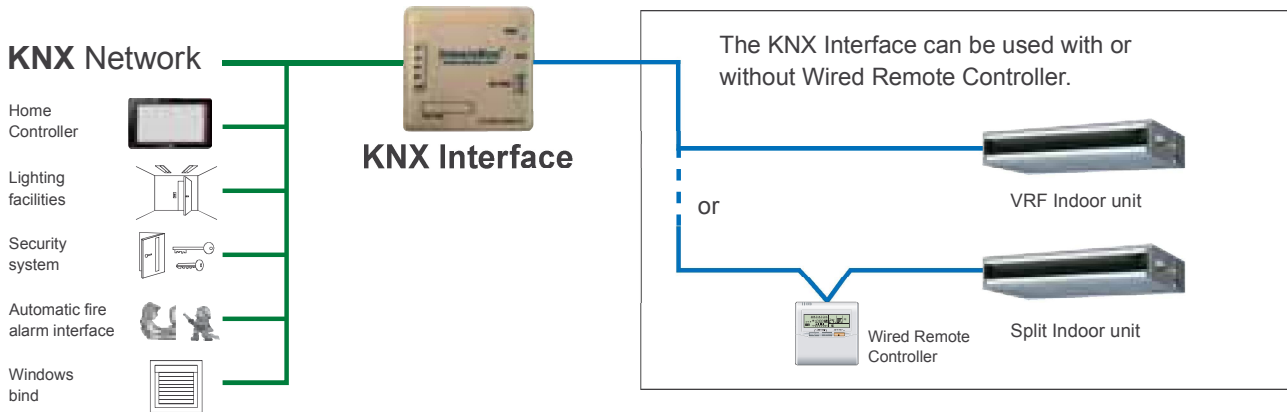
Windows bind

KNX Interface

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

or

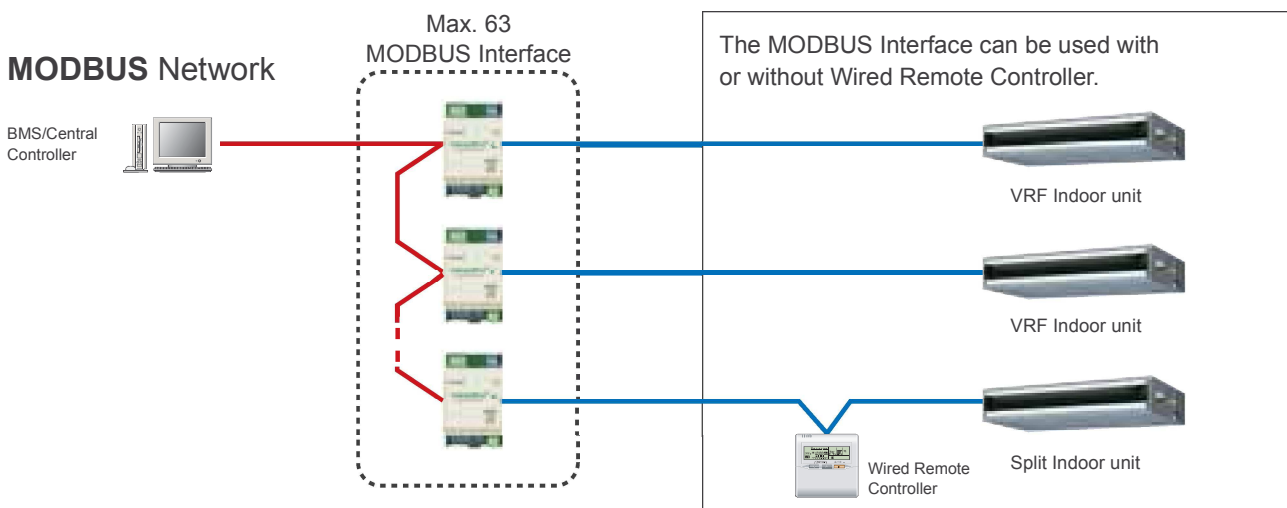VRF Indoor unit

Wired Remote Controller

Split Indoor unit

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.

MODBUS Network

BMS/Central Controller

Max. 63
MODBUS Interface

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

VRF Indoor unit

VRF Indoor unit

Wired Remote Controller

Split Indoor unit

Specifications

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

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

NEW Wireless LAN Interface : FJ-RC-WIFI-1

IntesisHome

- 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
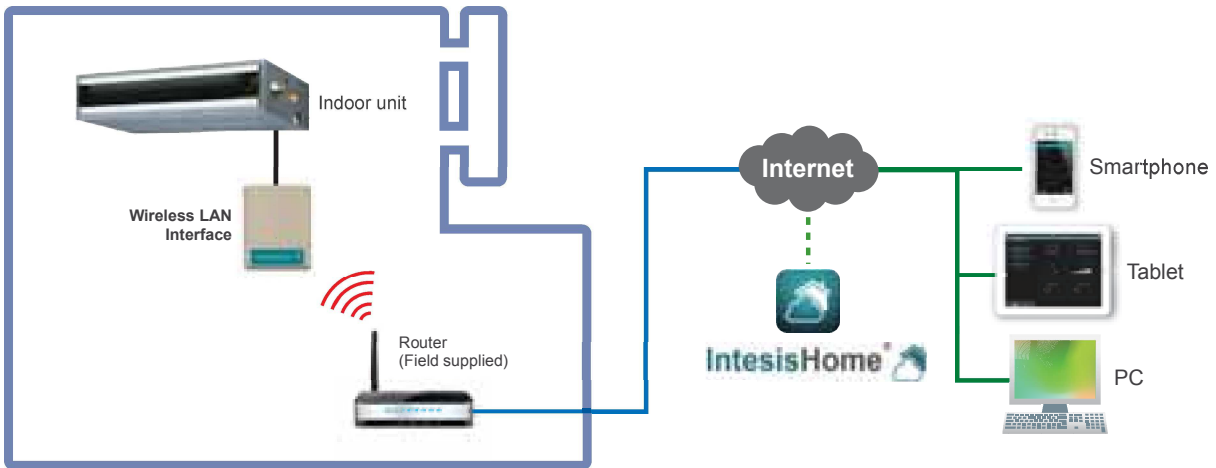
Basic control

- 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

(Application screen image)

Advanced control (Optional functions)

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

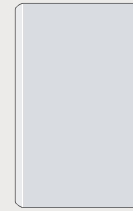## Notifications and history

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

Specifications

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

157

Adaptor & Convertor
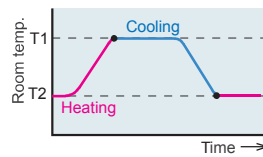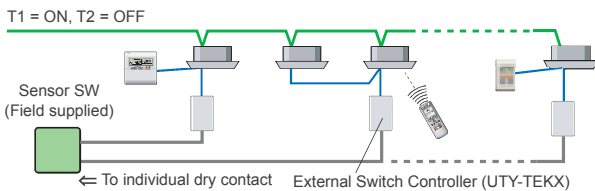
External Switch Controller : UTY-TEKX

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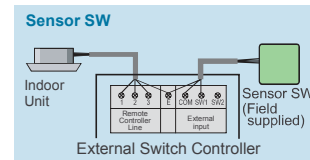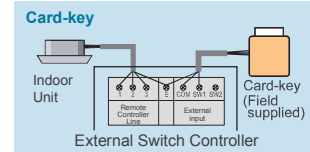
Note: All indoor units will operate in the same mode.

T1 = ON, T2 = OFF

Sensor SW
(Field supplied)

⇐ To individual dry contact

External Switch Controller (UTY-TEKX)


Room temp.

T1 — Cooling
T2 — Heating

Time →

Note 1.
Please choose a thermosensor switch which can be set up for T1 and T2.

Note 2.
The remote controller's operation is prior to the auto mode operation.

Electrical wiring

Card-key

Indoor Unit

Remote Controller Line — External input

Card-key (Field supplied)

External Switch Controller

Sensor SW

Indoor Unit

Remote Controller Line — External input

Sensor SW (Field supplied)

External Switch Controller

Signal Amplifier : UTY-VSGXZ1
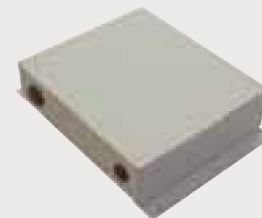
• Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.
• Up to 8 signal amplifiers can be installed in a VRF network system.
• A signal amplifier is required,
(1) When the total wiring length of the transnission line exceeds 500m.
(2) When the total number of units on the transnission line exceeds 64.

Installation example

A

B

C

D

Signal Amplifier

AB+BD+BC＜500m
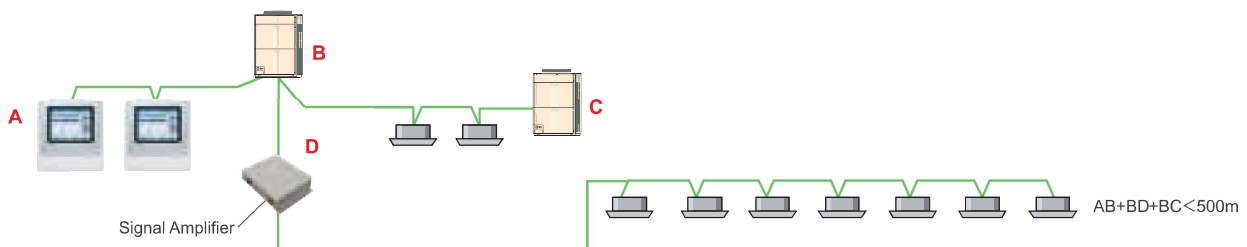
Specifications
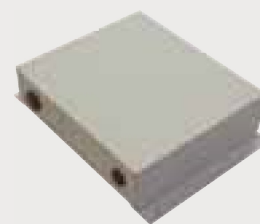
Model name	UTY-TEKX
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 75 x 30
Weight (g)	100

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

•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.

Installation example

•Split type systems can be controlled from a central remote controller or PC controller through connection to the VRF's network convertor.

•Standard remote controller and central remote controller provide On / Off control, master control, temperature and fan control, etc.

•A single network convertor can be used to connect and control up to 16 single units.

Network Convertor

USB adaptor

VRF network system

System Controller

Single Split

Group of Single Split

Big Multi
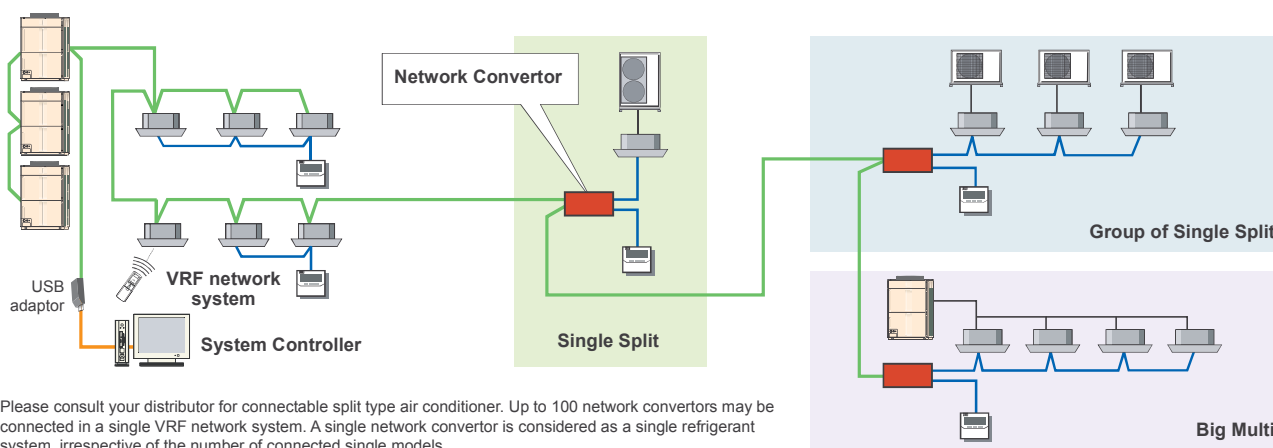
Please consult your distributor for connectable split type air conditioner. Up to 100 network convertors may be connected in a single VRF network system. A single network convertor is considered as a single refrigerant system, irrespective of the number of connected single models.

Used for connecting Group Remote Controller
4 group remort controllers can be connected to a single Network convertor.

Network Convertor

VRF network system

Group
Remote Controller

* 2 refrigerant circuits can be covered by a single network convertor. Up to a total of 16 network convertors and central remote controller adapters can be connected in a single VRF network system.
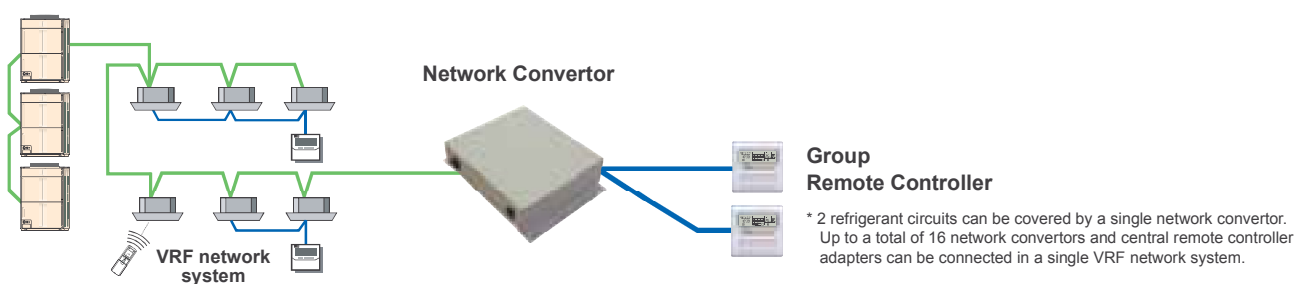
Specifications

Model name	UTY-VGGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Power Consumption (W)	6.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

Max. Monitor and controll
400 indoor units

Max. Monitor and controll
100 outdoor units

Service Tool : UTY-ASGX (Software)

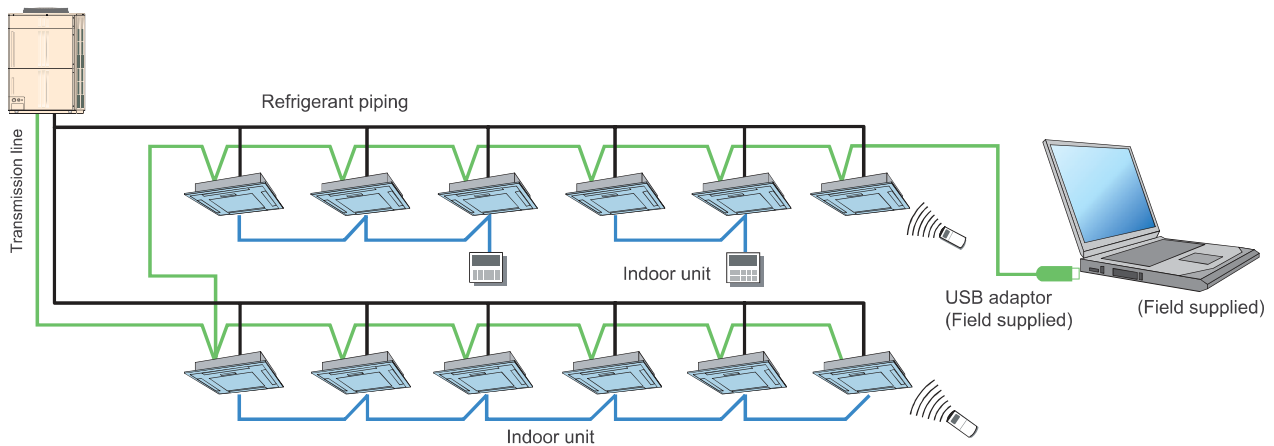Extensive monitoring and analysis functions for installation and maintenance

- •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).

Wiring connection

Transmission line
Refrigerant piping
Indoor unit
Indoor unit
USB adaptor (Field supplied)
(Field supplied)

Functions

•Equipment Detail (Diagram)

- •Equipment Detail (List)
- •Error History
- •Remote File Download
- •System List
- •Commissioning Tool

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)
CPU	1 GHz or higher
Memory	• For Windows Vista®, Windows® 7 (32-bit), and Windows® 8 (32-bit): 1 GB or more • For Windows®7 (64-bit) and Windows® 8.1 (64-bit): 2 GB or more
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® 8.0 or 9.0 or 10.0 / 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 must be field supplied.
U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel Model Number : 75010R

VRF network system can be supported 4

1,600 indoor units can be supported

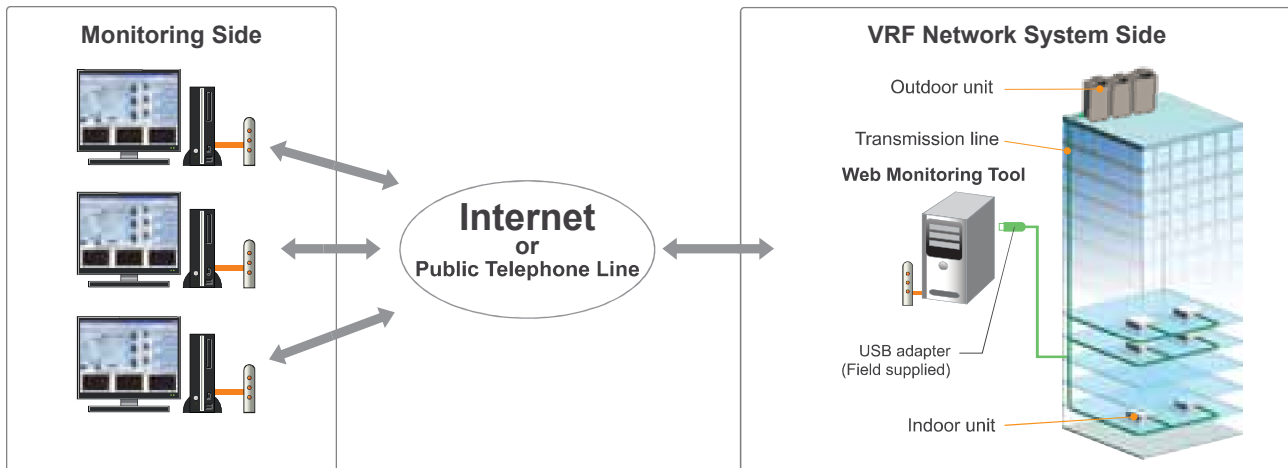## Web Monitoring Tool : UTY-AMGX (Software)

Product features

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

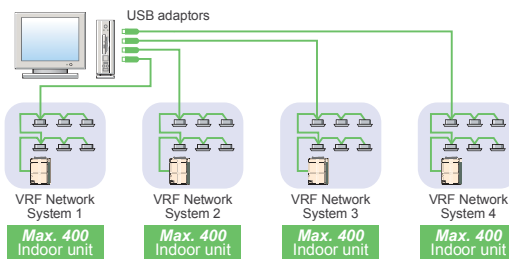*1: Use of internet mail system required.

Web Monitoring System

Monitoring Side

VRF Network System Side

Outdoor unit
Transmission line
Web Monitoring Tool
USB adapter (Field supplied)
Indoor unit

Internet or **Public Telephone Line**

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.

USB adaptors

VRF Network System 1 — Max. 400 Indoor unit
VRF Network System 2 — Max. 400 Indoor unit
VRF Network System 3 — Max. 400 Indoor unit
VRF Network System 4 — Max. 400 Indoor unit

Personal computer system requirements

	UTY-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)
CPU	1 GHz or higher
Memory	• For Windows Vista®, Windows® 7 (32-bit), and Windows® 8 (32-bit): 1 GB or more • For Windows® 7 (64-bit) and Windows® 8 (64-bit): 2 GB or more
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
	  * Required maximum USB port numbers depend on the applicable system configurations.

Software	Internet Explorer® 8.0 or 9.0 or 10.0 / 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 must be field supplied.
U10 USB Network Interface must be field supplied. Contact Echelon® Corporation or its local sales representative for detail.
Product Name : U10 USB Network Interface - TP/FT-10 Channel   Model Number : 75010R