



# AIRSTAGE /- II

## **Multi Air Conditioning System for Buildings**

Large Capacity Multi VRF System
DC Inverter Control Compressor
Long Piping System Design
High Efficiency Refrigerant R410A



















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



**High Efficiency Operating System** 

EER/COP has been significantly improved by unique inverter technology and refrigerant control technology.



#### Installation Flexibility

Total pipe length of 1,000m and 150m actual pipe length. From small to large buildings, any application can be supported.



#### **Compact Design**

The outdoor unit size has been significantly reduced by optimizing of equipment. This allows for a reduction in the required installation area floor space.



#### **User Friendly Central Control**

Diverse building air conditioning control functions can be controlled easily by central air conditioning control.







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Advanced system considers high efficiency operation

# High Efficiency Operation



## 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 construc-



#### Sine-wave DC inverter control

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



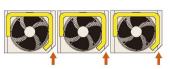
#### DC twin rotary compressor

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.













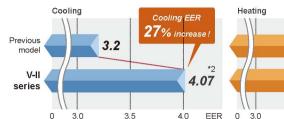


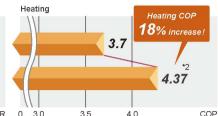


## Significantly improved EER/COP

Significantly greater efficiency is realized by the use of a DC twin rotary compressor, inverter technology, and large heat exchanger.

- \* "EER/COP" is the coefficient of performance
  [ = capacity (kW) ÷ input power (kW) ].
  \*EER/COP values are based on our own testing method.
- \*2. The data refers to an 8HP outdoor unit.





## Energy efficiency combination

Choice of space saving or energy efficiency combinations







(Comparison of Average COP)

## Various energy saving features

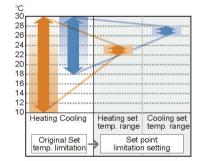
#### Room temperature set point limitation

The minimum and maximum temperature range can be set giving further energy saving while considering the comfort of the occupants.

#### **Auto-off timer**

Each remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents waste of energy.

(Note: Except simple remote controller)





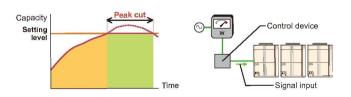
Operation setting (System Controller)

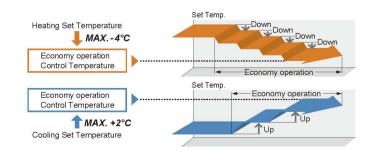
#### Peak cut operation

Operation capacity can be set in 4 steps for rated capability. The power consumption at peak is cut down and the maximum load is suppressed.

#### **Economy operation**

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















### **FEATURES**

V-II systems can be applied to a wide variety of Building applications due to the reduced outdoor unit size and piping length capabilities

# Design Versatility



## Overall piping length 1,000m

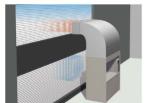
World's top class overall piping length of 1,000m allows for application in a wide variety buildings.

## High static pressure of 80Pa

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

Powerful discharge with an external static pressure of 80Pa.

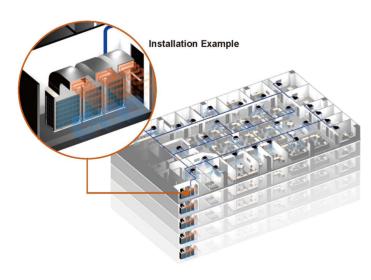
V-II series

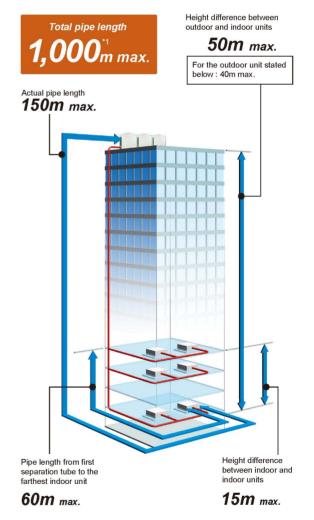


Previous model



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.





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







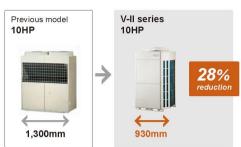




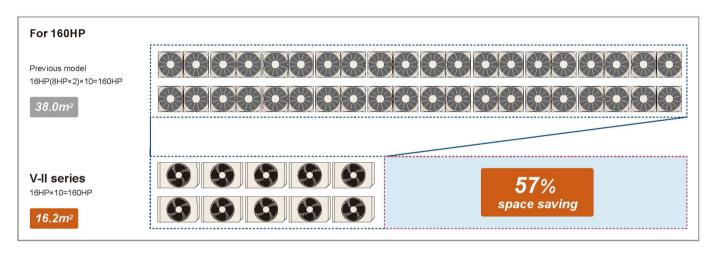




Compact size has been achieved by significantly reducing the width of the outdoor units compared to previous models.

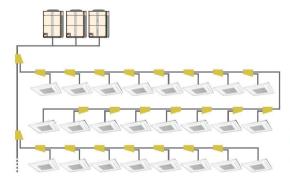






## High capacity connection

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

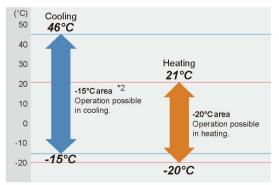


Note: When indoor unit connected capacity is greater than 100%, individual indoor units will operate at a slightly lower capacity when maximum capacity is required.

## Wide operating range

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

Cooling: -15°C~46°C Heating: -20°C~21°C



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













## **FEATURES**

High reliability considering long-term safety and confidence

# High Reliability

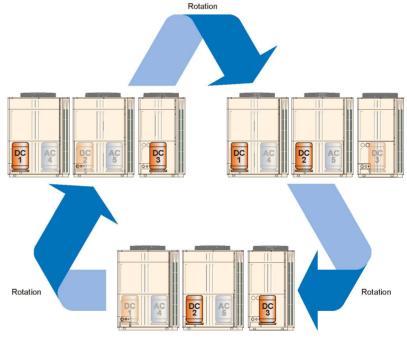


## Life-extending operation

#### Outdoor unit rotational operation

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





Note: The inverter compressors start in priority.

Rotational operation is alternated by the start / stop timing of the compressors

















## Backup operation

If one of two compressors malfunctions, it will not affect the operation of the remaining outdoor units.

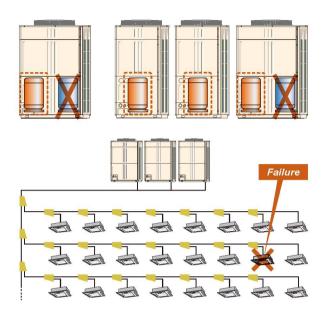
#### **Outdoor Units**

If one of compressor fails, backup operation will be performed by the remaining compressors as emergency.\*1

#### Indoor unit continuous operation

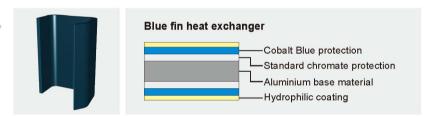
Each indoor unit is controlled individually on the system network. This allows all indoor units to continue to operate unaffected even if an error should occur at any indoor unit's on the VRF network system.

\*1 Note: Backup operation may not be possible depending on the combination and trouble state.



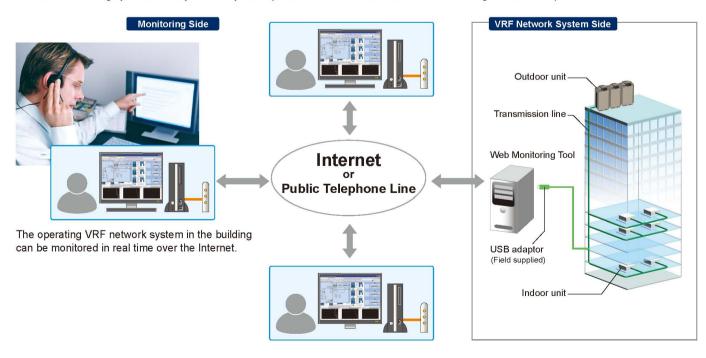
## Adoption of blue fin heat exchanger

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



## Remote monitoring

The Web Monitoring system allows you view system operation at all times over the internet ensuring trouble free operation.











### **FEATURES**

From transportation of the product to address setting for commissioning, significant improvements have been made which reduce the cost of installation.

# Easy Installation



## Easily transported

Light weight



Note: In the case of 14HP

### Easily craned using lifting belt hooks

Design of outdoor unit allows for lifting straps to be used



Can be transported in a small elevator



#### Transporting by forklift

Transport with forklift is possible.











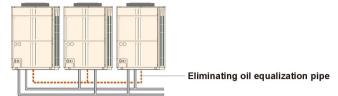






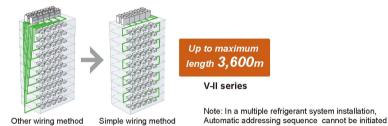


The need for an oil equalization pipe as required on the previous model has been removed. The installation costs have been reduced by employing a simple 2 pipe connection



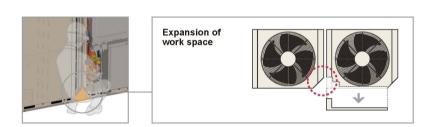
## Simple signal line connection

Installation is made easier as the communication wiring can be connected continuously to any component.



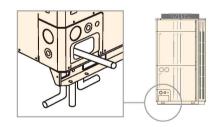
## Easy access

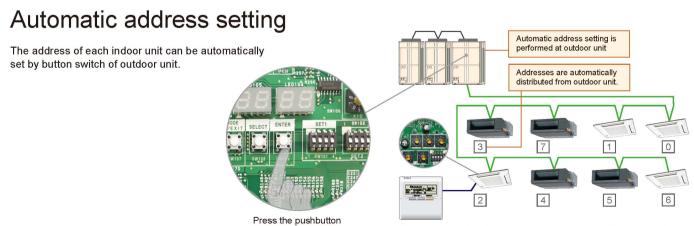
By adopting a L-Shape front panel that can be removed, the work space for installation and service has been significantly expanded by this new design. For multiple installations, work is performed easily and efficiently even in a narrow space.



## Four way piping connection

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





switch of outdoor unit.

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













#### **FEATURES**

Low noise, easy operational settings, and comfortable temperature adjustment allows for V-II systems to be used in building air conditioning applications.

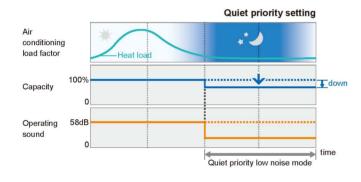
# Comfort and Convenience

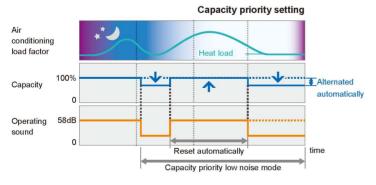


## Quiet operation

#### Low noise mode

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





# Low noise design Compressor noise has been significantly reduced by shielding the compressor compartment. Compressor compartment Indoor unit Low noise indoor unit lineup Slim Duc Low Static Pressure Duct Compact Wall Mounted











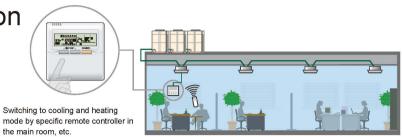






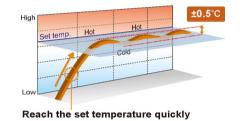
## Auto changeover function

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



## Precision refrigerant flow control

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

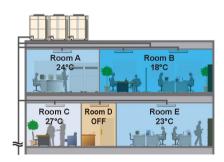


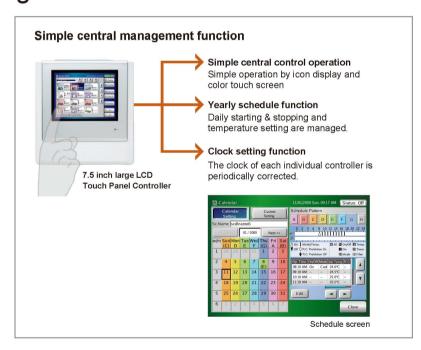
Thermal change of the room \*Simulation in heating operation

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

## Individual air conditioning control

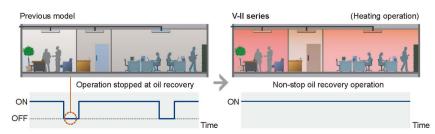
The desired temperature conditions of each room are met due to the Individual thermostat control of each indoor unit.





## 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.









## FEATURES

Designed for Quick Service response, Easy maintenance and Troubleshooting

# Easy Service & Maintenance



## Design for easy service and maintenance

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

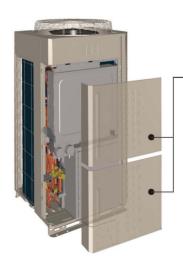


Consolidated electrical components make maintenance easy Movable PCB panel that allows for easier maintenance work behind the PCB

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



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





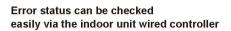




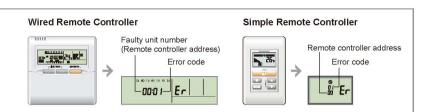








An error code is displayed on a liquid crystal screen.

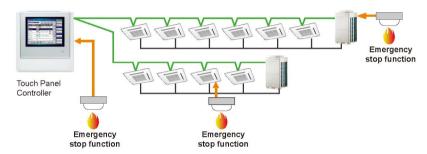


## **Emergency stop function**

Emergency alarm can be received by indoor, outdoor units or Touch Panel Controller when they received it, all units will be stopped.

Note: In case of received Emergency alarm by Indoor / outdoor unit : All units connected within same refrigerant system will be stopped.

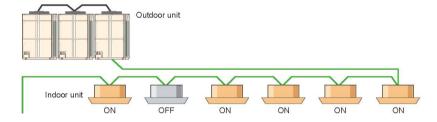
Touch Panel Controller : all unit connected within VRF network system with Touch Panel Controller will be stopped.



## Continuous operation during maintenance

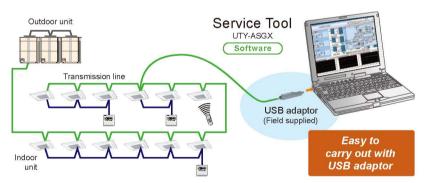
#### Non-stop operation

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

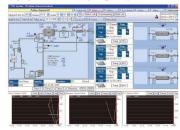


## Trouble diagnosis by Service Tool

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



#### **Equipment Detail (Diagram)**



#### **Equipment Detail (List)**















#### Space saving combination







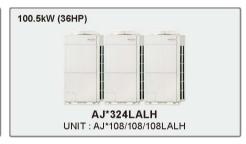














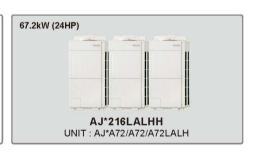




### **Energy efficiency combination**























- Extensive line up from 8HP to 48HP in 2HP increments
- Space saving combination and Energy efficiency combination available, which can be selected to suit any air conditioning needs
  Combinations other than the followings are not recommended.















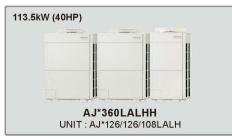
















AJ\*: AJY(FUJITSU), AJH(GENERAL)











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Opucc	Saving	OUIII		auon

Rating Capacity range	Н	Р	8	10	12	14	16	18	20	22	24
Model name			AJ*A72LALH	AJ*A90LALH	AJ*108LALH	AJ*126LALH	AJ*144LALH	AJ*162LALH	AJ*180LALH	AJ*198LALH	AJ*216LALH
Unit 1 Unit 2 Unit 3			AJ*A72LALH	AJ*A90LALH	AJ*108LALH	AJ*126LALH	AJ*144LALH	AJ*A90LALH AJ*A72LALH	AJ*108LALH AJ*A72LALH	AJ*108LALH AJ*A90LALH	AJ*108LALH AJ*108LALH
Maximum Connectable Indoo	r 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	22.4-67.2	25.2-75.6	28.0-83.9	30.8-92.3	33.5-100.5
Power source	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					3-pha	se 4 wire, 400 V.	50Hz			•
	Cooling		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
	Cooling	kW	5.51	7.73	9.62	11.53	14.17	13.24	15.13	17.35	19.24
Input power	Heating		5.72	7.83	9.28	11.45	12.60	13.55	15.00	17.11	18.56
EER	Cooling	ww	4.07	3.62	3.48	3.47	3.18	3.81	3.69	3.54	3.48
COP	Heating	VV/VV	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	Cooling	dB	56	58	58	60	61	60	60	61	61
pressure level*2	Heating	(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				
	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
	Depth	mm	765	765	765	765	765	765	765	765	765
Weight	kg		220	220	275	296	296	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	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88
pipe diameter	Gas		22.20	22.20	28.58	28.58	28.58	28.58	28.58	34.92	34.92
Operation	Cooling	က	-15 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46				
range	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21				

#### **Energy efficiency combination**

Rating Capacity range	Н	Р	16	22	24	26	28	30
Model name			AJ*144LALHH	AJ*198LALHH	AJ*216LALHH	AJ*234LALHH	AJ*252LALHH	AJ*270LALHH
Unit 1 Unit 2 Unit 3			AJ*A72LALH AJ*A72LALH	AJ*126LALH AJ*A72LALH	AJ*A72LALH AJ*A72LALH AJ*A72LALH	AJ*A90LALH AJ*A72LALH AJ*A72LALH	AJ*108LALH AJ*A72LALH AJ*A72LALH	AJ*126LALH AJ*A72LALH AJ*A72LALH
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	e, 400 V, 50Hz		<u> </u>
0	Cooling	kW	44.8	62.4	67.2	72.8	78.3	84.8
Capacity	Heating	KVV	50.0	70.0	75.0	81.5	87.5	95.0
	Cooling		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	ww	4.07	3.66	4.07	3.88	3.79	3.76
COP	Heating	VV/VV	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	Cooling	dB	59	61	61	62	62	63
pressure level*2	Heating	(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
	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
	Depth	mm	765	765	765	765	765	765
Weight	kg		220 + 220	296 + 220	220 + 220 + 220	220 + 220 + 220	275 + 220 + 220	296 + 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	Liquid	mm	12.70	15.88	15.88	15.88	15.88	19.05
pipe diameter	Gas	1100	28.58	34.92	34.92	34.92	34.92	34.92
Operation	Cooling	°C	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46	-5 to 46
range	Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21

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

Note: Specifications are based on the following conditions. Cooling: Indoor temperature of  $27^{\circ}$ CDB /  $19^{\circ}$ CWB, and outdoor temperature of  $35^{\circ}$ CDB /  $24^{\circ}$ CWB. Heating: Indoor temperature of  $20^{\circ}$ CDB /  $(15^{\circ}$ CWB), and outdoor temperature of  $7^{\circ}$ CDB /  $6^{\circ}$ 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- $5^{\circ}\text{C}$ , the outdoor unit must be installed in a position that is higher than or equal to those of indoor units.













26	28	30	32	34	36	38	40	42	44	46	48
AJ*234LALH	AJ*252LALH	AJ*270LALH	AJ*288LALH	AJ*306LALH	AJ*324LALH	AJ*342LALH	AJ*360LALH	AJ*378LALH	AJ*396LALH	AJ*414LALH	AJ*432LALI
AJ*126LALH AJ*108LALH	AJ*144LALH AJ*108LALH	AJ*144LALH AJ*126LALH	AJ*144LALH AJ*144LALH	AJ*108LALH AJ*108LALH AJ*A90LALH	AJ*108LALH AJ*108LALH AJ*108LALH	AJ*126LALH AJ*108LALH AJ*108LALH	AJ*144LALH AJ*108LALH AJ*108LALH	AJ*144LALH AJ*126LALH AJ*108LALH	AJ*144LALH AJ*144LALH AJ*108LALH	AJ*144LALH AJ*144LALH AJ*126LALH	AJ*144LALH AJ*144LALH AJ*144LALH
39	42	45	48	48	48	48	48	48	48	48	48
36.8-110.3	39.3-117.8	42.5-127.5	45.0-135.0	47.5-142.5	50.3-150.8	53.5-160.5	56.0-168.0	59.3-177.8	61.8-185.3	65.0-195.0	67.5-202.5
	3-phase 4 wire, 400 V, 50Hz										
73.5	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
$3.9 \times 2 + 4.5 \times 2$	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						
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
296 + 275	296 + 275	296 + 296	296 + 296	275 + 275 + 220	275 + 275 + 275	296 + 275 + 275	296 + 275 + 275	296 + 296 + 275	296 + 296 + 275	296 + 296 + 296	296 + 296 + 296
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						
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
					or or
AJ*288LALHH	AJ*306LALHH	AJ*324LALHH	AJ*360LALHH	AJ*378LALHH	AJ*396LALHH
AJ*108LALH AJ*108LALH AJ*A72LALH	AJ*126LALH AJ*108LALH AJ*A72LALH	AJ*126LALH AJ*126LALH AJ*A72LALH	AJ*126LALH AJ*126LALH AJ*108LALH	AJ*126LALH AJ*126LALH AJ*126LALH	AJ*144LALH AJ*126LALH AJ*126LALH
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 wir	e, 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
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	296 + 275 + 220	296 + 296 + 220	296 + 296 + 275	296 + 296 + 296	296 + 296 + 29
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					
-20 to 21					

<sup>\*1</sup> Minimum connectable indoor unit number is 2. However ARXC72 and ARXC90 can be used single connection.







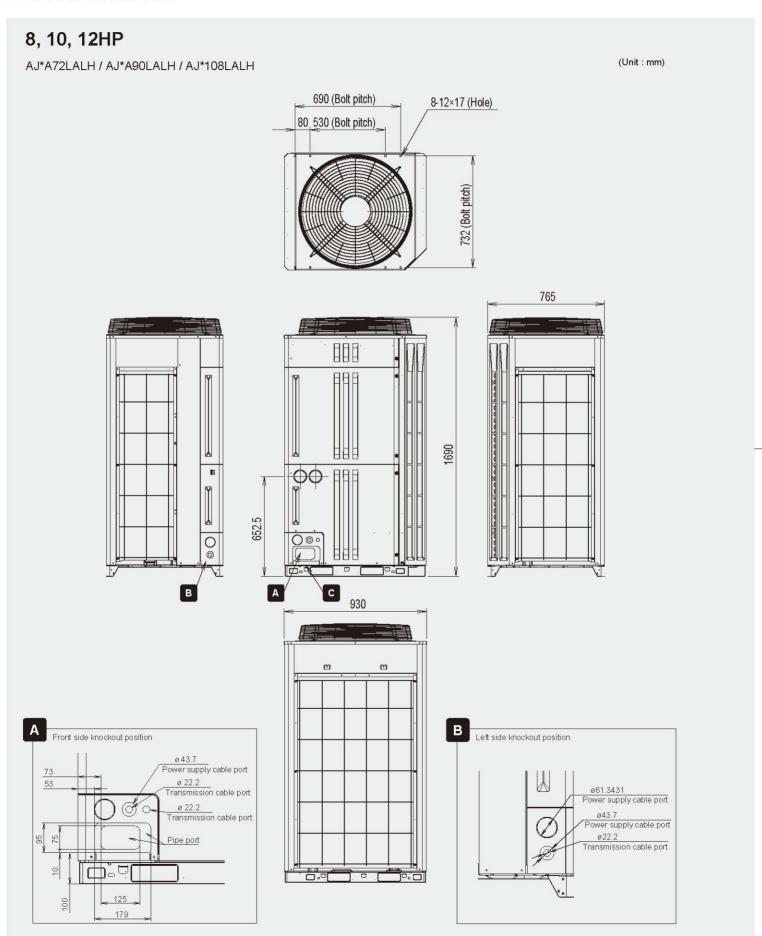
<sup>\*2</sup> The noise value is the value when measured in an anechoic room.

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





## **Dimensions**













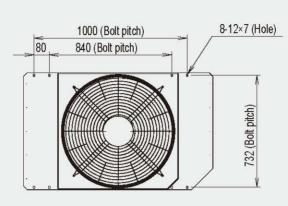


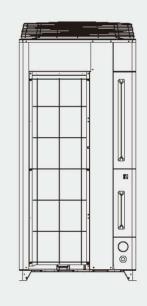


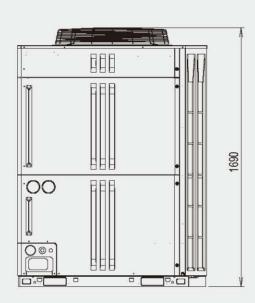


AJ\*126LALH / AJ\*144LALH

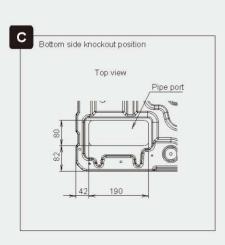


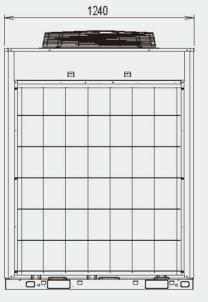
























## **INDOOR UNITS**

## **Indoor Unit Lineup**

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

Capacity range (kVV)	2.2	2.8	3.6	4.5	5.6
Model code	7	9	12	14	18
Compact Cassette	AUXB07LALH	AUXB09LALH	AUXB12LALH	AUXB14LALH	AUXB18LALH
Cassette					AUXD18LALH
Compact Duct	ARXB07LALH	ARXB09LALH	ARXB12LALH	ARXB14LALH	ARXB18LALH
Slim Duct NEW (Drain pump internal)	NEW ARXD07LATH	NEW ARXD09LATH	NEW ARXD12LATH	NEW ARXD14LATH	NEW  ARXD18LATH
Low Static Pressure Duct					
Duct					
High Static Pressure Duct					
Floor / Ceiling			AB*A12LBTH	AB*A14LBTH	AB*A18LBTH
Ceiling					
Compact Wall Mounted (EEV internal)	AS*A07LACH	AS*A09LACH	AS*A12LACH	AS*A14LACH	
Compact Wall Mounted (EEV external)	AS*E07LACH	AS*E09LACH	AS*E12LACH	AS*E14LACH	
Wall Mounted					NEW AS*A18LACH

 $\mathsf{AB}^{\star} : \mathsf{ABY}(\mathsf{FUJITSU}), \, \mathsf{ABH}(\mathsf{GENERAL}) \quad \, \, \mathsf{AS}^{\star} : \mathsf{ASY}(\mathsf{FUJITSU}), \, \mathsf{ASH}(\mathsf{GENERAL})$ 















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

	7.1	9.0	11.2	12.5	14.0	18.0	22.4	25.0
	24	30	36	45	54	60	72	90
,								
	AUXB24LALH							
<								
	- L	- 1	- L					
į	AUXD24LALH	AUXA30LALH	AUXA36LALH	AUXA45LALH	AUXA54LALH			
	NEW							
}	ARXD24LATH							
	6666	ceed,	5550	ccco.				
	ARXB24LATH	ARXB30LATH	ARXB36LATH	ARXB45LATH				
	5555	0000	5555	6660				
	ARXA24LATH	ARXA30LATH	ARXA36LATH	ARXA45LATH				
			ARXC36LATH	ARXC45LATH		ARXC60LATH	ARXC72LATH	ARXC90LATH
I	NEW							
4	1							
	AB*A24LBTH							
	AD AZ4LDIII	New	NEW	NEW	New			
		NEW	NEW	NEW	NEW			
		AB*A30LBTH	AB*A36LBTH	AB*A45LBTH	AB*A54LBTH			
	NEW	NEW						
		12						
	AS*A24LACH	AS*A30LACH						













## INDOOR UNITS

## **Compact Cassette**

Models

AUXB07LALH AUXB09LALH AUXB12LALH AUXB14LALH AUXB18LALH AUXB24LALH

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



#### 2-stage turbo fan

#### High efficiency design by 2 stage structure

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





Sic

#### Previous turbo far

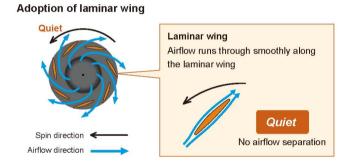
In the case of a previous fan, the air outlet range was narrow as the airflow moved to the motor side which meant the velocity of air passing through the heat exchanger was uneven.



#### **Quiet quality**

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

Designed by CFD-analysis (fluid) simulations



#### **Specifications**

Model name				AUXB07LALH	AUXB09LALH	AUXB12LALH	AUXB14LALH	AUXB18LALH	AUXB24LALH	
Power source						230V ~	-, 50Hz			
Capacity		Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1	
		Heating	KVV	2.8	3.2	4.1	5.0	6.3	8.0	
Input power			W	25	25	29	35	36	84	
Airflow rate		High		540	550	600	680	710	1,030	
		Med	m³/h	450	450	530	590	580	830	
		Low		350	350	390	390	400	450	
Sound pressure level		High		34	35	37	38	41	50	
		Med	dB(A)	30	30	34	34	35	44	
		Low		25	25	27	27	27	30	
Dimensions (H	x W x D)	•	mm	245 x 570 x 570						
Weight			kg		1	1	7			
Connection		Liquid (Flare)			ø6	.35		ø9	.52	
pipe diameter		Gas (Flare)	mm		ø12	2.70		ø15	5.88	
Drain		Drain				ø25 (I.D) ;	ø32 (O.D.)			
Grille(option) Model name			UTG-UF*C-W							
Dimensi		ons (H x W x D)	mm			50 x 70	0 x 700			
Weight		kg			2.	6				

F\*: FY (FUJITSU); FG(GENERAL)

Note: Specifications are based on the following conditions.

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













#### Improvement of the airflow distribution



Maintenance of fan motor and fan

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

A : Fan motor B : 2-stage turbo fan

C : Bell-mouth D : Panel

2 Long life filter: standard equipment

Adaptation of transparent drainage parts

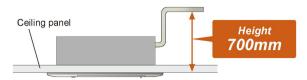
During installation, maintenance and operation, the drain pump and kit can be checked easily.

#### Compact design

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



#### High lift drain pump



#### High ceiling mode

The compact cassette can be installed up to a height of 3.0m (12/14/18/24).

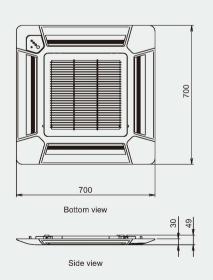
	The maximum height from floor to ceiling (m)					
Model code	Standard mode	High ceiling mode				
07	2.7	_				
09	2.7	_				
12	2.7	3.0				
14	2.7	3.0				
18	2.7	3.0				
24	2.7	3.0				

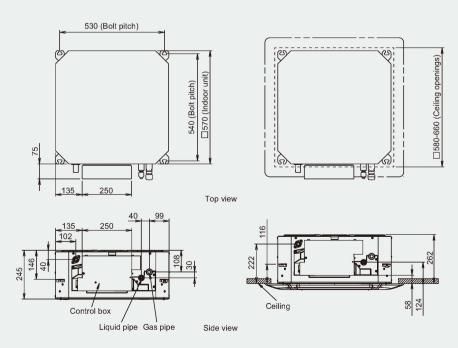
#### **Optional parts**

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

#### Dimensions (Unit:mm)

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

















## Cassette

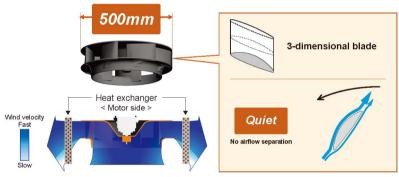
Models

**AUXD18LALH AUXD24LALH AUXA30LALH AUXA36LALH AUXA45LALH AUXA54LALH** 

Powerful, wide airflow and quiet operation

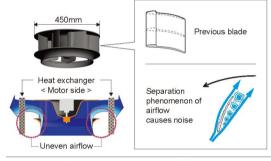
#### High efficiency turbo fan with 3-dimensional blade

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



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

Previous turbo fan



> : Airflow direction •• S S : Turbulent flow noise

#### **Specifications**

Model name				AUXD18LALH	AUXD24LALH	AUXA30LALH	AUXA36LALH	AUXA45LALH	AUXA54LALH	
Power source	6					230V -	~, 50Hz			
Capacity		Cooling	LAAT	5.6	7.1	9.0	11.2	12.5	14.0	
		Heating	kW	6.3	8.0	10.0	12.5	14.0	16.0	
Input power			W	39	46	59	80	99	119	
Airflow rate		High		1,150	1,280	1,600	1,800	1,900	2,000	
		Med	m³/h	940	1,040	1,300	1,300	1,370	1,370	
				870	870	1,100	1,100	1,100	1,100	
Sound pressure level		High		36	38	40	44	46	47	
		Med	dB(A)	30	33	38	38	39	39	
		Low		29	29	33	33	33	33	
Dimensions (H	H x W x D;		mm	246 x 84	40 x 840		288 x 840 x 840			
Weight			kg	2	3		2	27		
Connection		Liquid (Flare)				ø9	0.52			
pipe diameter	÷	Gas (Flare)	mm		ø15.88		ø19.05			
Drain						ø25 (I.D.)	ø32 (O.D.)			
Grille(option)	Grille(option) Model name			UTG-UG*A-W						
	Dimensi	ons (H x W x D)	mm			50 x 95	50 x 950			
	Weight kg					5	.5			

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

Note: Specifications are based on the following conditions.

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







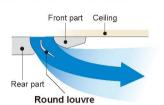


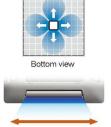




#### Improvement of the airflow distribution

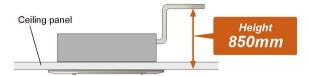
The louvre design distributes air leaving a space between the chassis and the ceiling allowing far and wide air flow distribution.





Much less temperature irregularity happens by spreading airflow widely

#### High lift drain pump



#### High ceiling mode

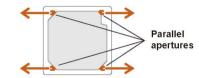
This cassette can be installed up to a height of 4.2m (36/45/54).

NA 1 1 - 1	The maximum height	from floor to ceiling (m)		
Model code	Standard mode	High ceiling mode		
18	3.0	3.5		
24	3.0	3.5		
30	3.2	3.6		
36	3.2	4.2		
45	3.2	4.2		
54	3.2	4.2		

#### Adjustment of hanger position is possible after installation



#### One way aperture installation



#### **Optional parts**

IR Receiver Kit: UTY-LRH\*B1 Air Outlet Shutter Plate : UTR-YDZC Panel Spacer: UTG-BGYA-W

Insulation Kit for High Humidity: UTZ-KXGA / UTZ-KXGB

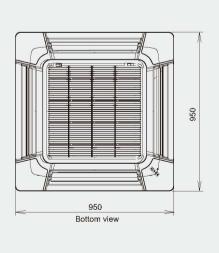
Wide Panel: UTG-AGYA-W Fresh Air Intake Kit: UTZ-VXGA

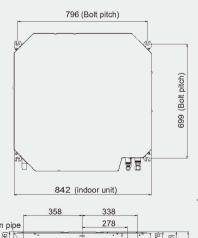
H\*: HY(FUJITSU), HG(GENERAL)

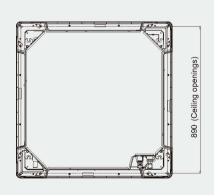
Dimensions (Unit: mm) ( ): AUXD18 / AUXD24

Models: AUXD18LALH / AUXD24LALH (Slim type)

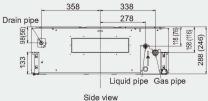
AUXA30LALH / AUXA36LALH / AUXA45LALH / AUXA54LALH







Top view



















Models

**ARXB07LALH ARXB09LALH ARXB12LALH ARXB14LALH ARXB18LALH** 





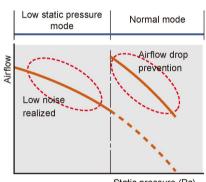
ARXB12LALH ARXB14LALH ARXB18LALH

Small and compact indoor unit suitable for many applications

#### Low noise level

A low noise level has been achieved for each capacity

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



Static pressure (Pa)

#### **Specifications**

Model name			ARXB07LALH	ARXB09LALH	ARXB12LALH	ARXB14LALH	ARXB18LALH		
Power source			230V ~, 50Hz						
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6		
	Heating	KVV	2.8	3.2	4.0	5.0	6.3		
Input power		W	46	55	63	90	96		
Airflow rate	High		370	440	590	800	890		
	Med	m³/h	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	•	Ра	25	25	25	25	25		
Sound pressure level	High		29	31	30	33	36		
	Med	dB(A)	26	29	28	32	34		
	Low		24	27	25	30	30		
Dimensions (H x W x D)		mm	217 x 6	63 x 595	217 x 953 x 595				
Weight kg			1	25	25				
Connection	Liquid (Flare)		ø6		5.35	ø9.52			
pipe diameter	Gas (Flare)	mm		ø12	2.70 ø				
	Drain		ø25 (I.D.) ; ø32 (O.D.)						

Note: Specifications are based on the following conditions.

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







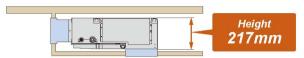






### Compact design

Ultra-slim duct air conditioner for easy installation



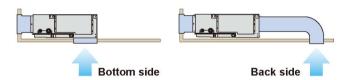
Slim size (217mm) allows installation even where the space behind the ceiling is narrow.

#### Two-direction drain piping



#### Air-intake

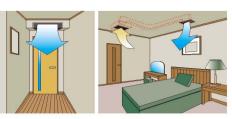
Air intake direction can be selected to match the installation site.



#### Flexible installation

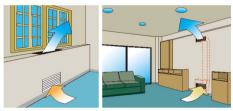
Ceiling concealed

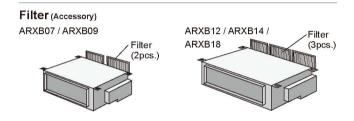




Floor concealed







#### **Optional parts**

Remote Sensor Unit: UTD-RS100 IR Receiver Unit: UTB-\*WC UTZ-PX1BBA Drain Pump Unit:

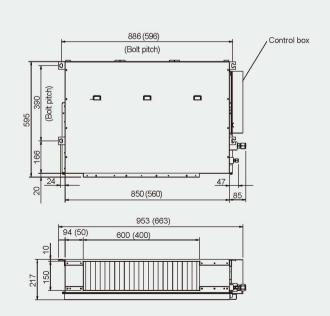
\*WC: YWC, TWC

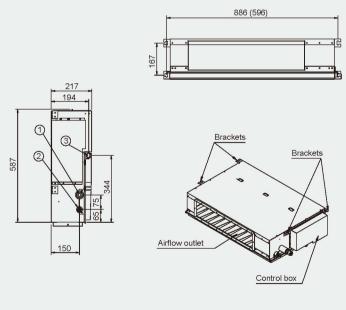
### Dimensions (Unit:mm) ( ):AR7/AR9

Models: ARXB07 / ARXB09 / ARXB12 / ARXB14 / ARXB18

\*Service accessibility must be allowed for when installing the product.

Please consult the installation manual for the necessary service access size.





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











## Slim Duct

Models (Drain pump internal model)

ARXD07LATH ARXD09LATH **ARXD12LATH ARXD14LATH ARXD18LATH ARXD24LATH** 



ARXD07LATH ARXD09LATH



ARXD18LATH

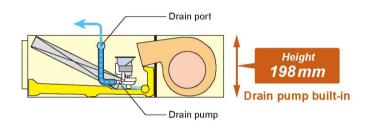
Slim design and wide range of static pressure for flexible installation.



ARXD24LATH

#### Slim design

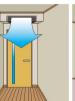
This model is slim design, it can install at the place where a ceiling is narrow.



#### Flexible installation

Ceiling concealed







Floor concealed







#### **Specifications**

Model name			ARXD07LATH	ARXD09LATH	ARXD12LATH	ARXD14LATH	ARXD18LATH	ARXD24LATH		
Power source			230V ~, 50Hz							
Capacity	Cooling	LAAC	2.2	2.8	3.6	4.5	5.6	7.1		
	Heating	kW	2.8	3.2	4.0	5.0	6.3	8.0		
Input power		W	44	50	54	92	83	122		
Airflow rate	High		550	600	600	800	940	1,330		
	Med	m³/h	490	550	510	710	840	1,240		
	Low		440	480	450	610	750	1,100		
Static pressure range		D-	0 to 90	0 to 90	0 to 90	0 to 90	0 to 90	0 to 50		
Standard static pressure		Pa	25	25	25	25	25	25		
Sound pressure level	High	dB(A)	28	29	30	34	34	35		
	Med		25	26	27	32	32	32		
	Low		22	24	24	28	28	29		
Dimensions (H x W x D	)	mm	198 x 700 x 620				198 x 900 x 620	198 x 1,100 x 620		
Weight kg		18 19			9	23	27			
Connection	Liquid (Flare)		ø6.35				ø9.52			
pipe diameter	Gas (Flare)	mm		ø1:	2.70		ø15	5.88		
	Drain									

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.







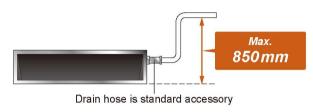








#### High lift drain pump



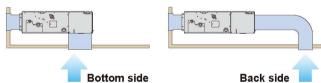
#### Selectable with a wide range of static pressure

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



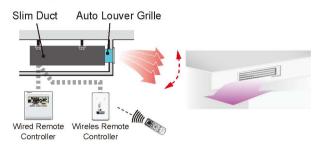
#### Air-intake

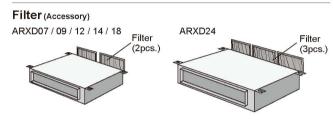
Air intake direction can be selected to match the installation site.



#### **Auto Louver Grille Kit (Option)**

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





#### **Optional parts**

Remote Sensor Unit: UTD-RS100 IR Receiver Unit: UTB-\*WC

Auto Louver Grille Kit: UTD-GXSA-W (for ARXD07/09/12/14LATH)

UTD-GXSB-W (for ARXD18LATH) UTD-GXSC-W (for ARXD24LATH)

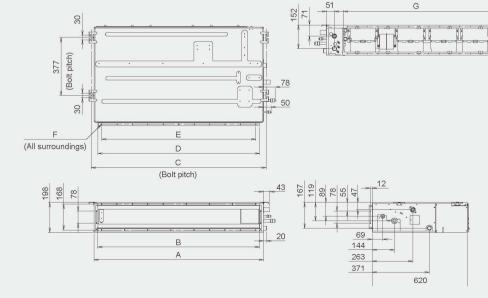
\*WC: YWC, TWC

#### Dimensions (Unit:mm)

Models: ARXD07LATH / ARXD09LATH / ARXD12LATH / ARXD14LATH / ARXD18LATH / ARXD24LATH

\*Service accessibility must be allowed for when installing the product.

Please consult the installation manual for the necessary service access size



	ARXD07-14LATH	ARXD18LATH	ARXD24LATH
Α	700	900	1100
В	650	850	1050
С	734	934	1134
D	650	850	1050
Е	P100x6=600	P100x8=800	P100x10=1000
F	18xØ5	22xØ5	26xØ5
G	574	774	974













## Low Static Pressure Duct / Duct

Models [ Low Static Pressure Duct ]

**ARXB24LATH** ARXB30LATH **ARXB36LATH ARXB45LATH** 

Indoor units suitable for quiet rooms such as a hotel or a bedroom

Models [ Duct ]

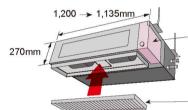
ARXA24LATH ARXA30LATH **ARXA36LATH** ARXA45LATH

Slim Compact design allows for easy installation in narrow ceiling spaces up to 270mm



### Slim & Compact design

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



Control box is now included as part of the main chassis

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

#### **Specifications**

Model name Power source		ARXB24LATH	ARXB30LATH	ARXB36LATH	ARXB45LATH	ARXA24LATH	ARXA30LATH	ARXA36LATH	ARXA45LATH	
		230V ~, 50Hz				230V ~, 50Hz				
Capacity	Cooling		7.1	9.0	11.2	12.5	7.1	9.0	11.2	12.5
	Heating	kW	8.0	10.0	12.5	14.0	8.0	10.0	12.5	14.0
Input power		W	145	198	253	338	190	188	312	312
Airflow rate	High		1,100	1,410	1,710	1,970	1,280	1,280	1,720	1,720
	Med	m³/h	920	1,280	1,600	1,790	1,210	1,210	1,670	1,670
	Low		810	1,150	1,470	1,670	1,130	1,130	1,600	1,600
Static pressure range		D-	0 to 80	0 to 80	0 to 80	0 to 80	30 to 150	30 to 150	30 to 150	30 to 150
Standard static pressur	re e	Pa	40	50	50	60	100	100	100	100
Sound pressure level	High	dB(A)	31	34	37	41	38	40	43	43
	Med		27	32	35	38	36	38	41	41
	Low		25	29	33	36	34	36	39	39
Dimensions (H x W x D	)	mm		270 x 1,1	135 x 700	'	270 x 1,135 x 700			
Weight kg		43	45			43 45				
Connection Liquid (Flare)			ø9.52				ø9.52			
pipe diameter	Gas (Flare)	mm	ø15	5.88	ø19	0.05	ø15	5.88	ø19	9.05
	Drain			ø25 (I.D.) ;	ø32 (O.D.)		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.







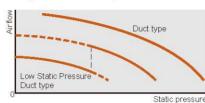








### Line-up of low-noise and high-power models, compatible with a wide range of static pressure



Duct type

Powerful model

space such as an office

with a flexible design

With a powerful motor, appropriate for a

wide range of static pressure. Flexible air duct installation is possible in a large

#### Low Static Pressure Duct type Optimum model for hotels or bedrooms

quiet interior. Perfect for hotels or bedrooms with limited air duct installation space. Two different levels can be selected according to the static pressure range





#### **Two-direction** drain piping

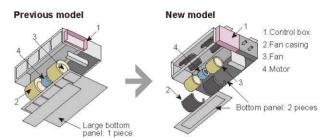
25dB

ARXB24 Low



#### Easy maintenance

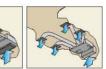
See below for the case of rear suction type



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

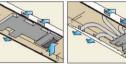
#### Installation styles

#### Embedded in Ceiling





Hanging from Ceiling



#### Optional parts

Remote Sensor Unit: UTD-RS100 Long Life Filter: UTD-LF25NA UTD-SF045T Flange (Square):

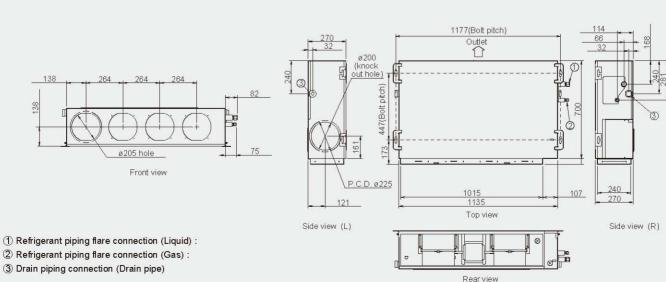
Flange (Round): UTD-RF204 IR Receiver Unit: UTB-\*WC Drain Pump Unit: UTZ-PX1NBA

\*WC:YWC,TWC

#### Dimensions (Unit: mm)

Models: ARXB24 / ARXB30 / ARXB36 / ARXB45 ARXA24 / ARXA30 / ARXA36 / ARXA45

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















Models

ARXC36LATH ARXC45LATH ARXC60LATH ARXC72LATH ARXC90LATH

These indoor units allow for high airflow quantities



ARXC36LATH ARXC45LATH ARXC60LATH



#### **Specifications**

Model name			ARXC36LATH	ARXC45LATH	ARXC60LATH	ARXC72LATH	ARXC90LATH		
Power source			230V ~, 50Hz						
Capacity	Cooling	kW	11.2		18.0	22.4	25.0		
	Heating	KVV	12.5	14.0	20.0	25.0	28.0		
Input power		W	405	427	427	1,110	1,250		
Airflow rate	High		2,600	3,500	3,500	3,900	4,300		
	Med	m³/h	1,950	3,000	3,000	3,300	4,000		
	Low	1 [	1,450	2,460	2,460	3,000	3,500		
Static pressure range		D-	100 to 200	100 to 250	100 to 250	50 to 300	100 to 300		
Standard static pressure		- Pa	100	100	100	260	250		
Sound pressure level	High		45	49	49	51	53		
	Med	dB(A)	38	45	45	48	51		
	Low	1 [	32	42	42	45	49		
Dimensions (H x W x D) mm		mm		400 x 1,050 x 500	450 x 1,550 x 700				
Weight kg		45	4	82	85				
Connection	Liquid		ø9.52 (Flare)			ø12.70 (Brazing)			
pipe diameter	Gas	mm		ø19.05 (Flare)	ø22.22 (Brazing)				
	Drain		ø25 (l.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.















## •

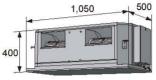
#### Easy installation (Compact size & Lightweight)

Models: ARXC36

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



Weight **40**% down

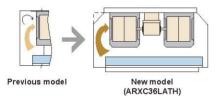


ARXC36LATH: 45kg (unit: mm)

#### Low noise

Models: ARXC36 / ARXC45 / ARXC60

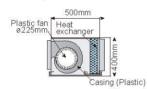
Cutting off the corners of the conventional indoor unit front panel and fan casing, has enabled less turbulent air flow. Low noise is realized by adopting a plastic case and a plastic fan.



#### ARXC36LATH: Plastic fan [45dB(A)]

\* Model : Material

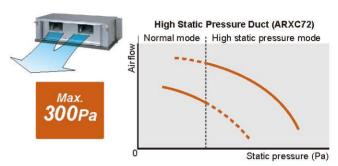
(At 100Pa: Actual noise measurement value)



#### Static pressure selection

Models: ARXC72 / ARXC90

2 Types of static pressure mode are selectable.



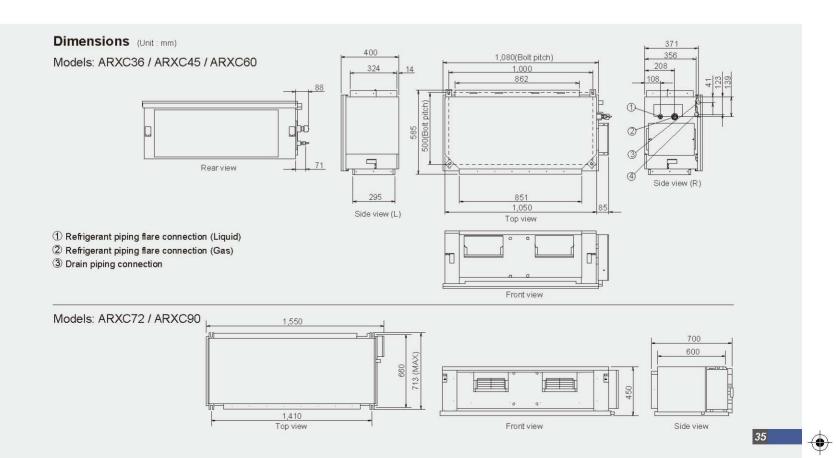
The adoption of a single phase fan motor allows 3 steps fan speed control

#### Optional parts

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

IR Receiver Unit: UTB-\*WC Remote Sensor Unit: UTD-RS100

\*WC:YWC,TWC















## Floor / Ceiling

Models

AB\*A12LBTH AB\*A14LBTH **AB\*A18LBTH** AB\*A24LBTH





#### Flexible installation

#### Example for floor installation

Floor console



#### Example for ceiling installation

Under ceiling



#### **Specifications**

Model name			AB*A12LBTH	AB*A14LBTH	AB*A18LBTH	AB*A24LBTH		
Power source			230V ~, 50Hz					
Capacity	Cooling	kW	3.6	4.5	5.6	7.1		
	Heating	KVV	4.0	5.0	6.3	8.0		
Input power		W	30	42	74	99		
Airflow rate	High		660	780	1,000	1,000		
	Med	m³/h	570	640	720	820		
	Low		490	550	580	680		
Sound pressure level	High		36	40	46	47		
	Med	dB(A)	32	36	39	42		
	Low		28	34	35	37		
Dimensions (H x W x D)		mm	199 x 990 x 655					
Weight kg			25 27					
Connection	Liquid (Flare)		ø6.35		ø9.52			
pipe diameter	Gas (Flare)	mm	ø12	2.70	ø15	5.88		
	Drain			ø25 (I.D.) ;	; ø32 (O.D.)			

AB\*: ABY(FUJITSU), ABH(GENERAL)

Note: Specifications are based on the following conditions.

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













#### Double auto swing

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

RIGHT and LEFT SWING UP and DOWN SWING 4 steps selectable

### High power DC fan motor

- High power Wide rotation range
- · High efficiency



#### Super vane

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

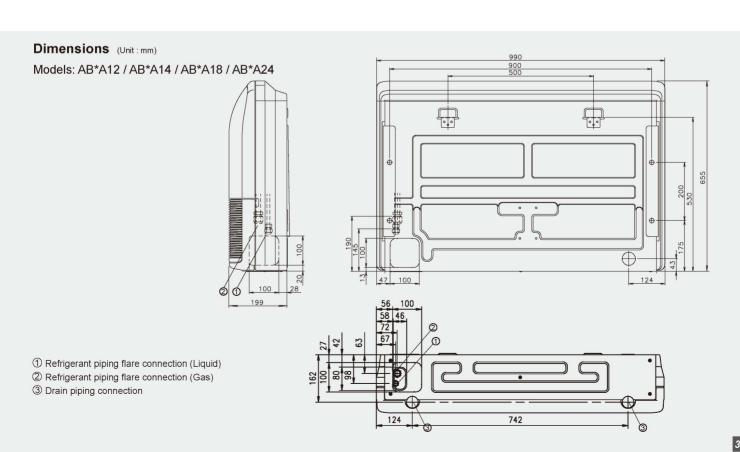
#### **Auto-closing louvre**

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

#### Compact design

Symmetrical, slim and compact design.











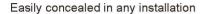






Models

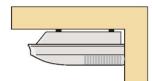
AB\*A30LBTH AB\*A36LBTH AB\*A45LBTH AB\*A54LBTH





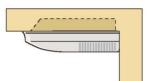
#### Installation

#### Open



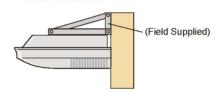
General installation pattern which suspends the indoor unit from the ceiling.

#### Concealed



Installation pattern where part of the indoor unit is embedded into the ceiling.

#### Wall mounted



Installation which fixes the indoor unit to the wall by the use of wall brackets (Field supplied). This type of installation can be used when the ceiling space is insufficient.

#### **Specifications**

Model name			AB*A30LBTH	AB*A36LBTH	AB*A45LBTH	AB*A54LBTH
Power source				230V -	-, 50Hz	•
Capacity	Cooling	kW	9.0	11.2	12.5	14.0
	Heating	KVV	10.0	12.5	14.0	16.0
Input power		W	66	85	131	180
Airflow rate	High		1,630	1,690	2,010	2,270
	Med	m³/h	1,370	1,400	1,600	1,780
	Low		1,140	1,170	1,230	1,280
Sound pressure level	High		42	45	48	51
	Med	dB(A)	38	38	42	45
	Low		33	34	35	36
Dimensions (H x W x D		mm		240 x 1,6	660 x 700	
Weight		kg	47		48	
Connection	Liquid (Flare)		ø9.52		ø9.52	
pipe diameter	Gas (Flare)	mm	ø15.88		ø19.05	
	Drain			ø25 (I.D.) ;	ø32 (O.D.)	

AB\*: ABY(FUJITSU), ABH(GENERAL)

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

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







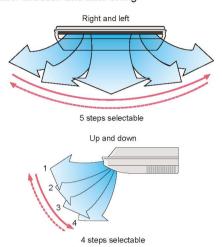






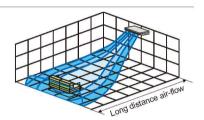
#### Double auto swing and wide airflow

Auto airflow direction and auto swing



#### Long airflow

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

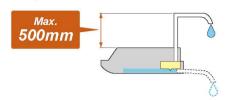


### Slim & Compact design

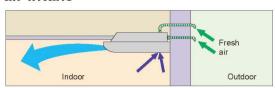


#### Condensate lift-up mechanism (Option)

Optional drain lift-up mechanism allows flexible installation.



#### Fresh air intake





- · Wide rotation range
- High efficiency



#### Long-life filter

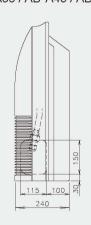
High Efficiency long-life filter doubles the life of the filter compared to standard filters.

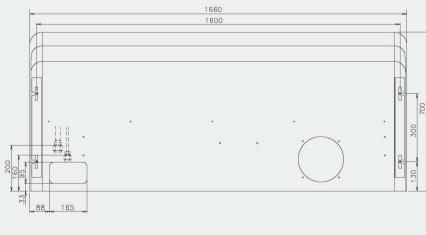
#### Optional parts

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

#### Dimensions (Unit: mm)

Models: AB\*A30 / AB\*A36 / AB\*A45 / AB\*A54







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













## **Compact Wall Mounted**

Models (EEV internal model)

Models (EEV external model)

AS\*A07LACH AS\*E07LACH AS\*A09LACH AS\*E09LACH AS\*E12LACH AS\*A12LACH AS\*E14LACH AS\*A14LACH

Compact and Stylish design indoor



#### Filter features

High quality air conditioning by incorporation of high performance filter.



Long-life\* lon **Deodorization Filter** 

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

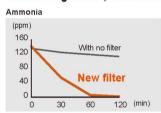
(\*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)

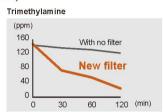


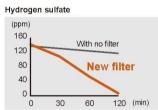
#### **Apple-catechin Filter**

Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.

#### Deodorizing effect (Odor reduction rate)







Testing organization: Environmental Sanitary Inspection Center Test method : Deodorization Test

#### **Specifications**

Model name			AS*A07LACH	AS*A09LACH	AS*A12LACH	AS*A14LACH	AS*E07LACH	AS*E09LACH	AS*E12LACH	AS*E14LACH
Power source	,,	,		230V ~	, 50Hz			230V ~	-, 50Hz	
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5
	Heating	KVV	2.8	3.2	4.1	5.0	2.8	3.2	4.1	5.0
Input power		W	16	16	19	30	15	16	20	28
Airflow rate	High		490	500	560	670	490	500	560	680
	Med	m³/h	450	450	480	490	450	450	480	490
	Low		370	370	420	420	370	370	420	420
Sound pressure level	High		35	36	39	44	34	35	38	43
	Med	dB(A)	33	33	35	37	32	32	34	35
	Low		27	27	31	32	26	26	30	30
Dimensions (H x W x D)		mm		275 x 79	90 x 215			275 x 79	90 x 215	
Weight		kg		(	9			(	9	
Connection	Liquid (Flare)			ø6	.35			ø6	.35	
pipe diameter	Gas (Flare)	mm		ø12	2.70			ø12	2.70	
	Drain			ø13.8(I.D.); ø1	5.8-ø16.7(O.D.)			ø13.8(I.D.) ; ø1	5.8-ø16.7(O.D.)	
EV Kit (option)				-	_		UTR-E	V09XB	UTR-E	EV14XB

AS\*: ASY(FUJITSU), ASH(GENERAL)

Note: Specifications are based on the following conditions.

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















#### Low noise

Electronic Expansion valves are built-in allowing for easy installation.

For installation to places that require additional low noise, select the external electronic expansion valve type.



#### Compact size

#### Powerful output even compact design

Width 790mm

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

#### Symmetrical design

Symmetrical, clean design that suits all interiors.

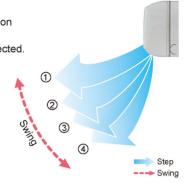
#### New style high power DC fan motor

- High power
- Wide rotation range
- · High efficiency
- · Compact size



#### **Auto swing louvre**

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



#### Easy maintenance

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



#### Wired control compatible

Wired and Wireless Remote Controller are acceptable.



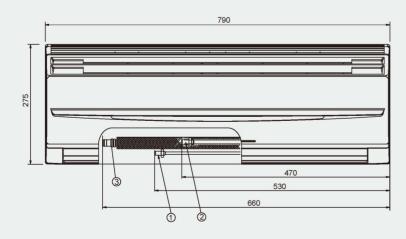


Wired Remote Controller

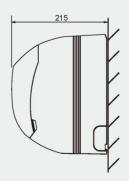
Simple Remote Controller

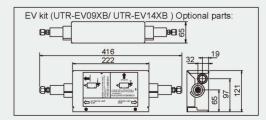
#### Dimensions (Unit:mm)

Models: AS\*A07 / AS\*A09 / AS\*A12 / AS\*A14 AS\*E07 / AS\*E09 / AS\*E12 / AS\*E14



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





















## Wall Mounted

Models

AS\*A18LACH AS\*A24LACH AS\*A30LACH

Simple & Elegant Appearance Design



### Compact & Slim design

By using DC fan motor, compact design is realized.



#### **Specifications**

Model name			AS*A18LACH	AS*A24LACH	AS*A30LACH
Power source				230V ~, 50Hz	
Capacity	Cooling	kW	5.6	7.1	8.0
	Heating	KVV	6.3	8.0	9.0
Input power		W	35	64	91
	High		840	1,100	1,240
Airflow rate	Med	m³/h	770	910	980
	Low		690	730	770
	High		41	48	52
Sound pressure level	Med	dB(A)	39	43	45
	Low		35	35	35
Dimensions (H x W x D)		mm		320 x 998 x 228	
Weight		kg		15	
Connection	Liquid (Flare)			ø9.52	
pipe diameter	Gas (Flare)	mm		ø15.88	
	Drain			ø12 (I.D.) ; ø16 (O.D.)	

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



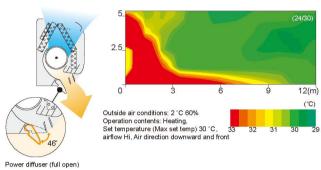




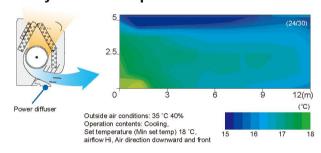




### "Vertical airflow" provides powerful floor level heating



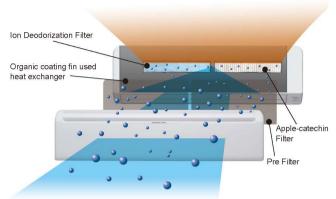
### "Horizontal airflow" does not blow cool air directly at the occupants in the room



#### Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

#### Air conditioner filter features



Antibacterial deodorizing pre-filter with special ceramic powder



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

(\*The filter can be used for approx. 3 years if it is washed under water to restore its surface action when it is dirty.)

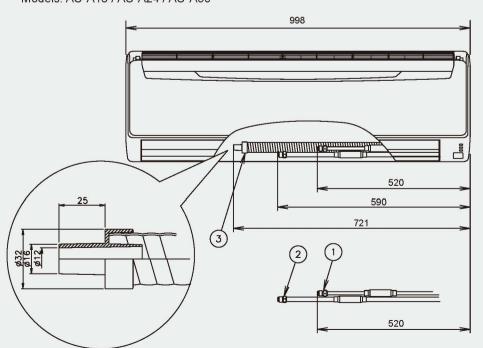


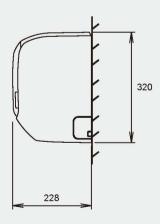
#### Apple-catechin Filter

Fine dust, invisible mold spores, and harmful microorganisms are absorbed onto the filter by static electricity, and further growth is inhibited and deactivated by the polyphenol extracted from apples.



Models: AS\*A18 / AS\*A24 / AS\*A30





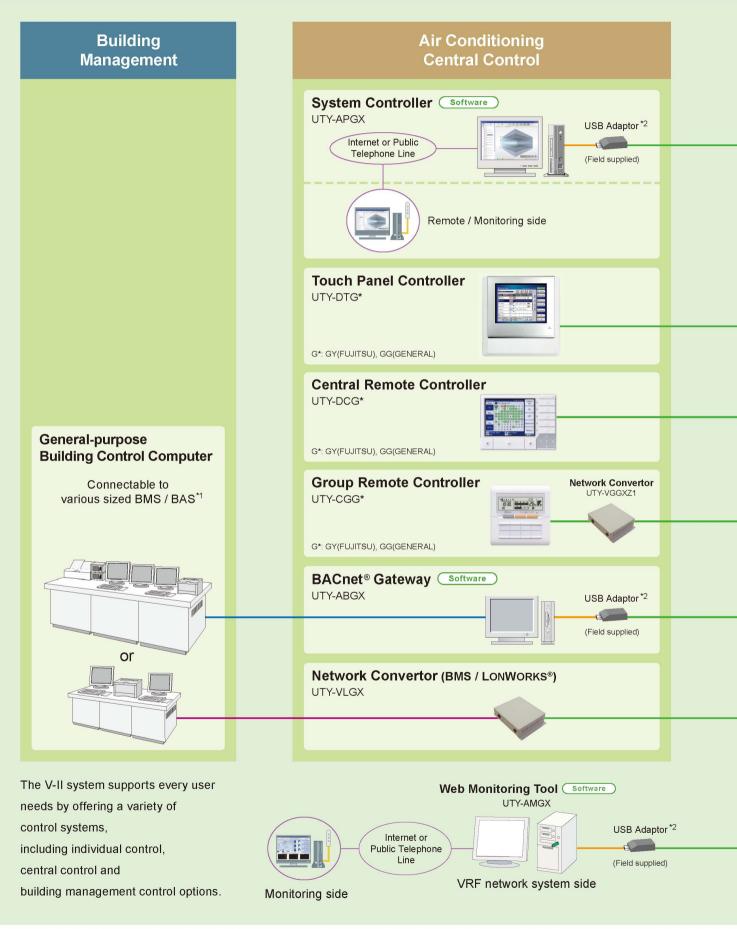
- 1 Refrigerant piping flare connection (Liquid)
- 2 Refrigerant piping flare connection (Gas)
- 3 Drain hose connection







## **Control System Diagram**



<sup>\*1.</sup> BMS/BAS: Building Management System / Building Automation System \*2. USB Adaptor is U10 USB Network Interface of Echelon® Corporation.

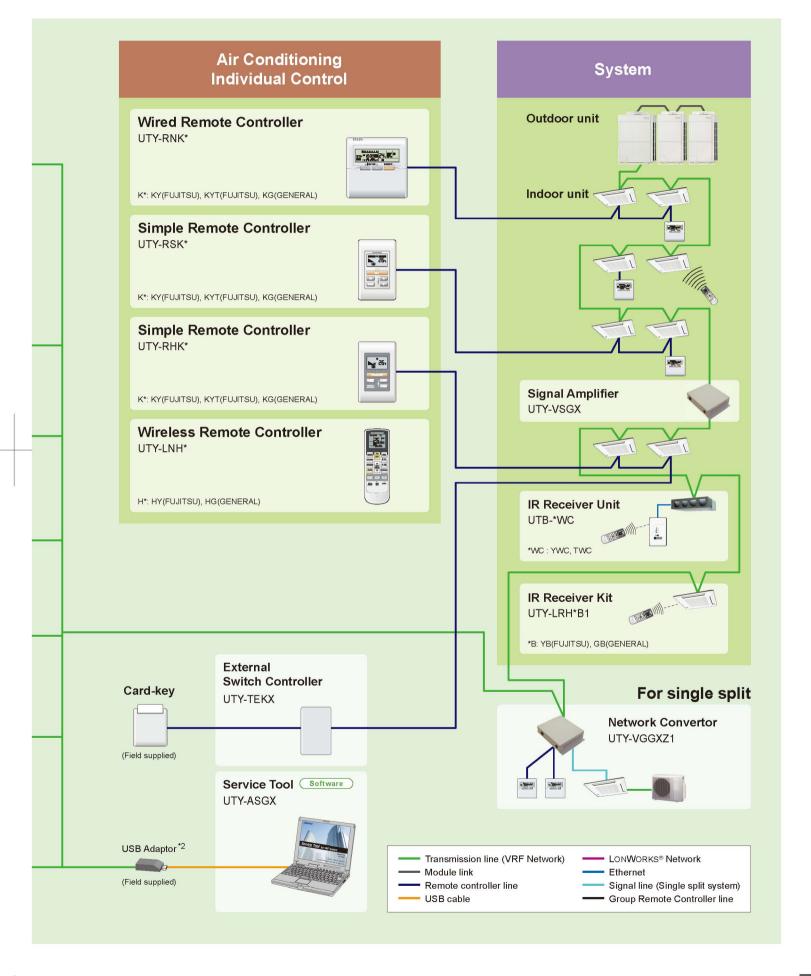


















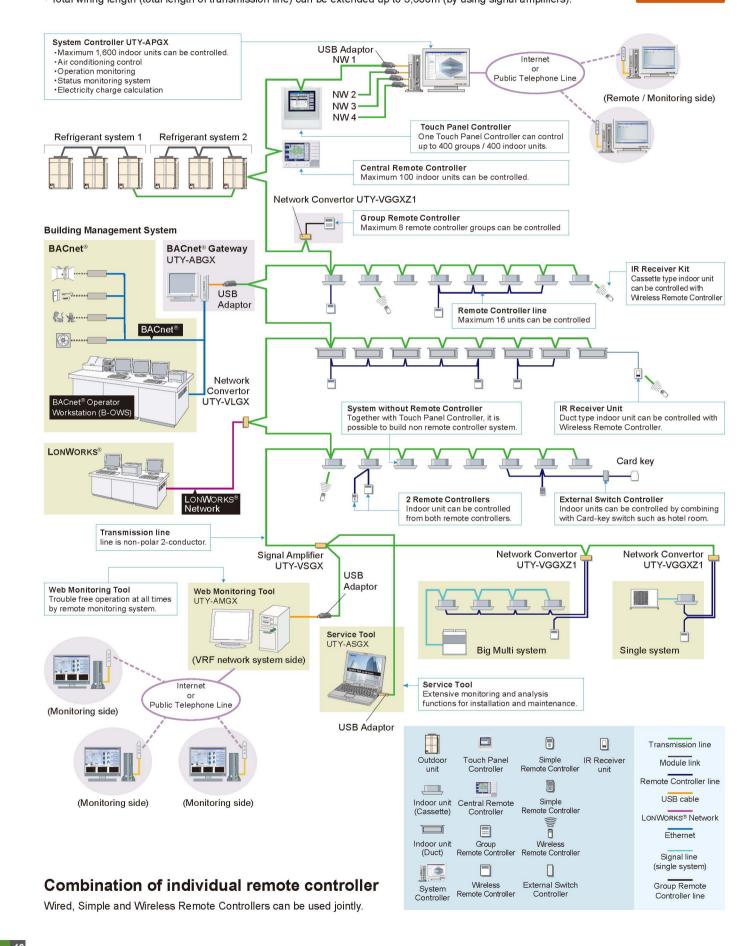


## Wiring system

· Wiring construction of the control system is made of power source wiring, transmission wiring and remote controller wiring.

• Total wiring length (total length of transmission line) can be extended up to 3,600m (by using signal amplifiers).

Max. transmission line length 3.600m











# Comparison table of Controllers

	ltem		Wired Remote Controller	Simple Remote Controller	Simple Remote Controller	Wireless Remote	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller (Software)
	Model name		UTY-RNKY UTY-RHKYT UTY-RNKG	UTY-RSKY UTY-RSKYT UTY-RSKG	UTY-RHKY UTY-RHKYT UTY-RHKG	UTY-LNHY UTY-LNHG	UTY-CGGY UTY-CGGG	UTY-DCGY UTY-DCGG	UTY-DTGY UTY-DTGG	UTY-APGX
Ma	x. controllable remote con	troller groups	1	1	1	1	8	100	400	1600
Ma	x. controllable indoor units	<b>S</b>	16	16	16	16	96	100	400	1600
Ma	x. controllable groups		-	-	-	-	-	16	400	1600
	On / Off		•	•	•	•	•	•	•	•
<u>=</u>	Operation mode setting		•	•	-	•	•	•	•	•
ctio	Fan speed setting		•	•	•	•	•	•	•	•
fuu	Room temp. setting		•	•	•	•	•	•	•	•
ıtrol	Room temp. set point lin	nitation	-	-	-	-	-	•	•	•
Air conditioning control function	Test operation		•	•	-	•	-	•	•	-
ning	Up/down air direction fla	p setting	•	-	-	•	-	•	•	•
itior	Right/left air direction fla	p setting	•	-	-	•	-	•	•	•
ond	Group setting		-	-	-	-	-	•	•	
\ir c	RC prohibition		-	-	-	-	-	•	•	•
٩	Anti freeze setting		-	-	-	-	_	•	•	•
	Economy mode setting		•	-	-	•	-	•	•	•
	Failure		•	•	•	_	•	•	•	•
	Defrosting		•	•	•	-	-	•	•	•
ay	Current time		•	-	=	•	•	•	•	•
Display	Day of week			-	-	-	•	-	•	•
	R.C. prohibition		•	•	•	_	-	•	•	•
	Cooling/heating priority		•	•	•	-	•	•	•	•
	Address display		•	•	•	-	•	•	•	•
	Schedule timer	Period	Week	-	-	-	Week	Week	Year	Year
		On/off per day	4	-	-	-	4	20	20	72
		On/off per week	28	-	-	-	28	140	140	504
Jer	On/off timer	•	•	-	-	•	-	-	-	-
Timer	Sleep timer		-	-	-	•	-	_	-	-
	Program timer		-	_	-	•	-	-	_	-
	Day off		•	-	-	_	-	•	•	•
:	Min. unit of timer setting	(Minutes)	30	-	-	5	10	10	10	10
	Status monitoring syster	n	-	-	-	-	-	•	•	•
	Electricity charge calcula	ation	-	-	-	-	-	-	-	•
trol	Error history		•	•	•	-	•	•	•	•
Control	Emergency stop		-	_	-	-	-	● *2	• *2	-
	Control via internet		-	-	-	_	-	_	-	•
	E-mail notification for ma	alfunction	-	-	-	-	_	-	_	•







<sup>\*1 &</sup>quot;Operation mode" setting is not available for this model.
\*2 This function is available only through external input. control.







## Wired Remote Controller

#### **UTY-RNK\***

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

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



# 16 oor units

#### **Functions**

#### Powerful features and compact size

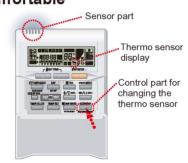
This Wired Remote Controller incorporates four primary functions into a single unit.

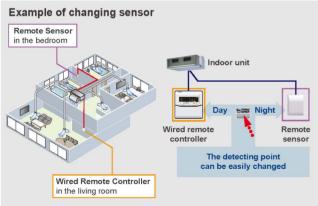


### Accurate and comfortable

detected accurately by the inclusion of a thermo sensor in the body of the wired controller. This new wired remote controller and the optional remote sensor allows flexibility in sensor location, suitable for all requirements.

Indoor temperature can be





Displayed temperature is set temperature

#### **Built-in timers**

Easy-to-understand time bar display

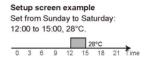
Weekly timer: Possible to set ON/OFF time to operate twice each day of the week.





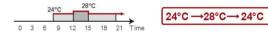


Setback timer: Possible to set temperature for two times spans and for each day of the week.





At "Weekly timer" + "Set back timer" setup



#### Diagnosis check function

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

- Malfunction diagnosis function
- Error history (Last 16 error codes can be accessed)

#### Simple installation

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





European mounting box JIS built-in box

#### **Specifications**

Model name	UTY-RNK*
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 17
Weight (g)	160

DC12V is supplied by the indoor unit.  $K^{\star}$ : KY(FUJITSU), KYT(FUJITSU), KG(GENERAL)



















## Simple Remote Controller

### **UTY-RSK\*** UTY-RHK\* (Without Operation mode)

Compact remote controller provides access to basic functions

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





UTY-RSK\*

Without Operation mode

#### **Functions**

#### **User-friendly operation**

- · Provides access to basic operations, such as Start / Stop, Fan control, Operation mode switching, and Room temperature
- 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.

#### **Background light**

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



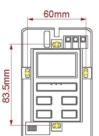
16 oor units

#### Simple installation

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







#### **Functions summary**

Model Operation	UTY-RSK*	UTY-RHK*
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-RSK*	UTY-RHK*
Power Supply	DC	12V
Dimensions (H x W x D) (mm)	120 x 7	75 x 14
Weight (g)	90 (100 : UTY-RSKYT)	90 (100 : UTY-RHKYT)

DC12V is supplied by the indoor unit.  $K^{\star}$ : KY(FUJITSU), KYT(FUJITSU), KG(GENERAL)















**UTY-LNH\*** 

Simple and sophisticated operations with a choice of 4 daily timers

· A single controller controls up to 16 indoor units.





#### **Functions**

#### **Built-in daily timer**

Select from 4 different timer programs :

On / Off / Program / Sleep

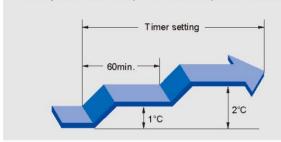
Program timer: The program timer operates the ON and OFF

timer once within a 24 hour period.

Sleep timer: The sleep timer function automatically corrects the set temperature according to the time setting to prevent excessive cooling or heating during sleep hours.

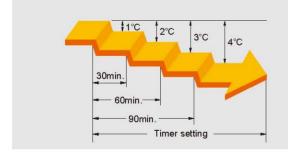
#### Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises  $1\,^{\circ}\text{C}$  every hour. The set temperature can rise up to a maximum of  $2\,^{\circ}\text{C}$  .



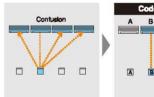
#### Heating operation

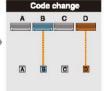
When the sleep timer is set, the set temperature automatically drops 1°C every 30 minutes. The set temperature can drop to a max. of 4°C.



### Easy installation and operation

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



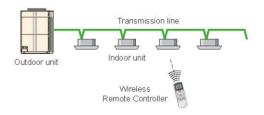


Wide and precise



#### **Address setting**

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



#### **Specifications**

Model name	UTY-LNH*	
Battery	1.5V (R03 / LR03 / AAA) x 2	
Dimensions (H x W x D) (mm)	158 x 56 x 20	
Weight (g)	70	

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













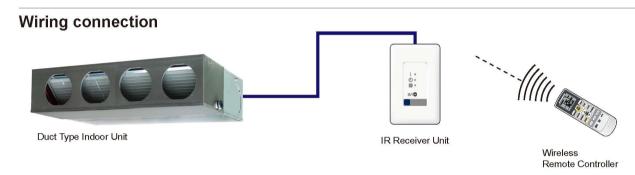


## IR Receiver Unit

UTB-\*WC

Necessary to control for all duct type by Wireless Remote Controller





#### **Specifications**

Model name	UTB-*WC
Battery	DC 12V
Dimensions (H x W x D) (mm)	122 x 60 x 26.5
Weight (g)	150

\*WC : YWC, TWC

## IR Receiver Kit UTY-LRH\*B1

Cassette type indoor unit can be controlled with Wireless Remote Controller



Remote Controller

#### **Specifications**

Model name	UTY-LRH*B1
Battery	DC 12V
Dimensions (H x W x D) (mm)	213.8 x 213.8x 25.7
Weight (g)	140

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















**Group Remote Controller UTY-CGG\*** 

Group control of indoor units with simple operation

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

(Network Convertor allows up to 4 Group Remote Controllers)





#### **Functions**

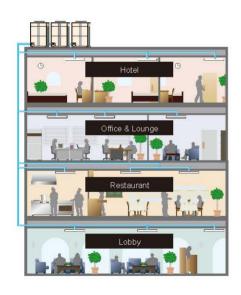
#### High performance and compact size

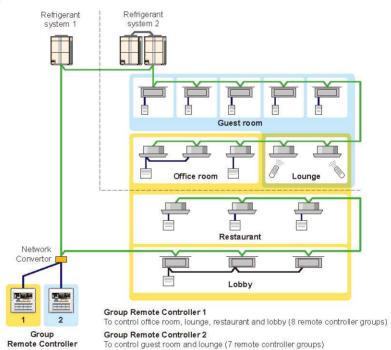
ON / OFF, Operating mode, Room temperature and Fan speed setting can be controlled / monitored centrally or individually.



#### Control up to 8 remote controller groups

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





#### **Built-in weekly timers**

The weekly timer is provided as a standard function.

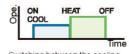
- 1. The timer can be set up for up to 4 times per day. (On / Off, operating mode, set temperature)
- 2. Allows separate settings for each day of the week.

#### ON / OFF switching



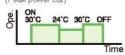
conditioning specification needs is possible

#### Cooling / Heating switching



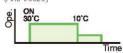
Switching between the cooling mode and heating mode can be set by time

## Temperature switching



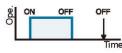
Since peak power cut is performed in a planned way, setting which changes the room temperature linked with time is possible

### Temperature switching



Low temperature heating operation can be set to prevent freezing in cold regions at night, etc.

#### Stop setting



Indoor unit stop setting at









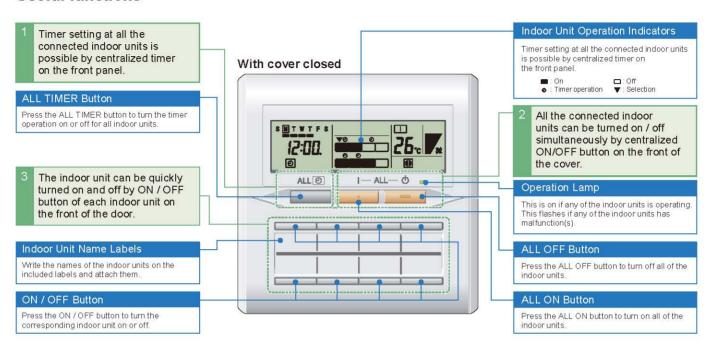


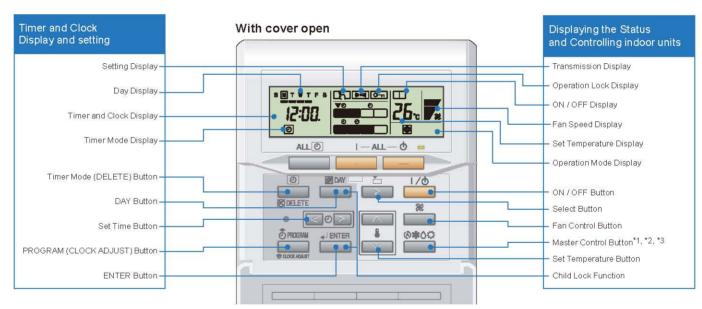






#### **Useful functions**





- \*1 : "AUTO 🚱" is not available for a heat pump model unless it is set up for the master indoor unit.
- \*2: "FAN X " is not available for a heat pump model
- \*3 : "HEAT 🗘 " is not available for a cooling only model

#### **Specifications**

Model name	UTY-CGG*
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 17
Weight (g)	200

DC12V is supplied by a network converter. G\*: GY(FUJITSU), GG(GENERAL)











## Central Remote Controller

#### **UTY-DCG\***

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

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

100 Indoor units

Max. controllable 16 groups

#### **User friendly operation**

Operation status monitor displays for all indoor units Easy comprehensible display and operation button

#### **Function Menu**

Function menu displays the items to select.

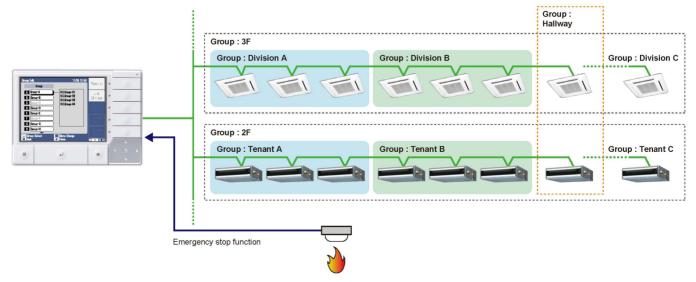


#### **Function button**

1 to 1 function button supports easy setting.

#### System overview

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















#### **Functions**

#### Diverse control of indoor units

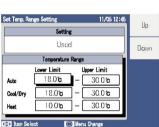
· Individual control (On / Off, Mode, set Temp, Fan speed, Economy operation, Antifreeze operation)



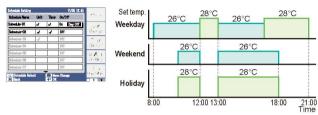
· Remote controller prohibition (All, On / Off, Mode, Temp, Timer, Filter): R.C prohibition setting prohibits individual remote control operation from this controller



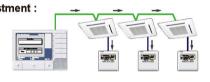
· Room temperature set point upper and lower limitation



• Weekly timer: Weekly timer can set the timer by various combinations.



· Automatic clock adjustment : The time setting of each controller can be set in batch automatically.



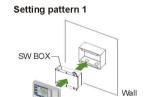
#### **Error history**

- Max 200 Errors memorize.
- · Suitable maintenance is possible by analysis of the error history data.

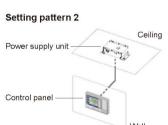


#### **Easy Installation**

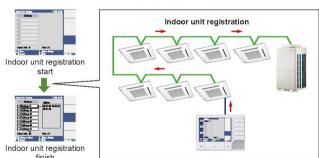
- The control panel and power supply unit can be installed
- · For flexibility in installation, the Control panel can be built into the wall or fix on the wall.







· Automatic or manual indoor unit registration



#### **Specifications**

Control Panel	B 0
Control Faller	Power Supply Unit
DC 5 V	100-240V, 50-60Hz, Single phase
120 x 162 x 26	99 x 135 x 40
308	355
	120 x 162 x 26

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







## **Touch Panel Controller UTY-DTG\***

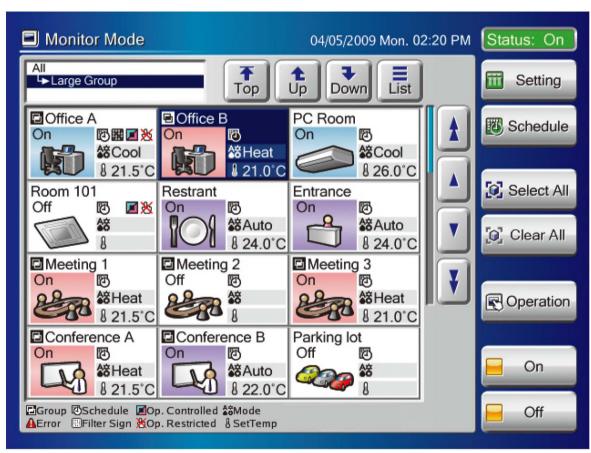
High visibility and easy operation via high resolution 7.5 inch TFT-LCD touch panel screen

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





#### **Functions**



Real size screen image

#### **Easy operation**

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



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

#### Easy maintenance

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





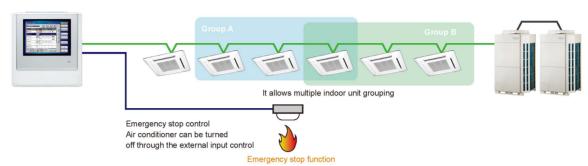








#### Up to 400 indoor units can be controlled



#### **Function**

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









Indoor units operation monitoring

#### Automatic clock adjustment

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



### Versatility

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



#### **Easy installation**

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

 Correctable mechanism for tilting (horizontal) after the installation of the body

No additional component is required for installation

• There is no need for the installation space of power supply adaptor and transmission adaptor etc.



#### **Specifications**

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

 $G^*$ : GY(FUJITSU), GG(GENERAL)













# System Controller (

Software

#### **UTY-APGX**

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

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



Max. controllable

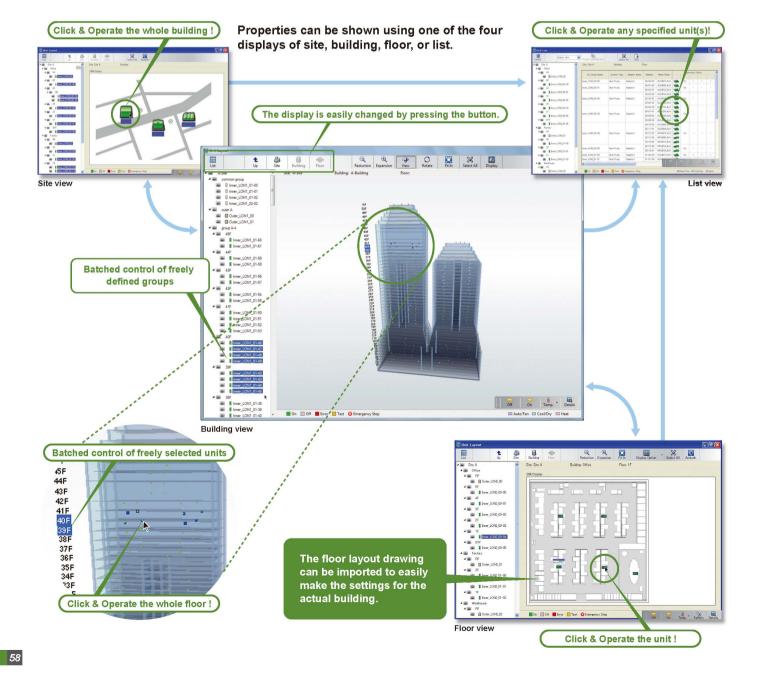
Max. controllable 400 Outdoor units

1,600 Indoor units

#### **Functions**

### User friendly view and operation

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















### **Energy saving management**

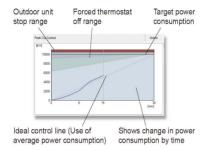
### Peak cut operation Option

A power meter is connected to detect the total power consumption while shifting the indoor unit set temperature, set the indoor unit forced thermostat off, and taking other measures to carefully

control the power consumed while maintaining comfort and conducting control to maintain the target power consumption set for each time. The indoor units to be controlled can be freely

grouped and the control

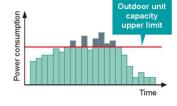
level can be set.



## Outdoor unit capacity save Option

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.





With UTY-PEGX Option

#### Indoor unit rotation operation (

Option

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.





**Batched stop** 

Batched stop at a freely set time for a property, building, or freely set block unit can be done to prevent any air conditioning unit from being forgotten to be turned off at the end of office hours, etc. In addition, any air conditioning unit whose operation is left on can be immediately identified by the icon color for a building or indoor unit in the monitoring screen and batched stop conducted in response.



Entire building stopped

Forget to turn off

Indoor unit rotation screen

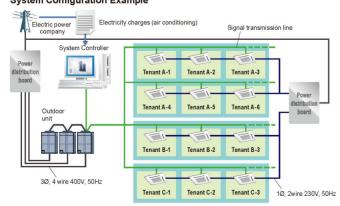
#### **Electricity charge apportionment**

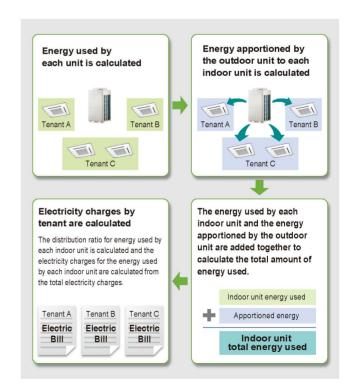
#### Electricity charge apportionment calculation framework

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

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

### **System Configuration Example**





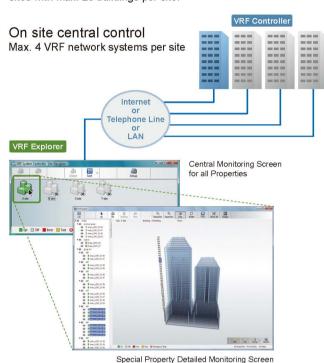


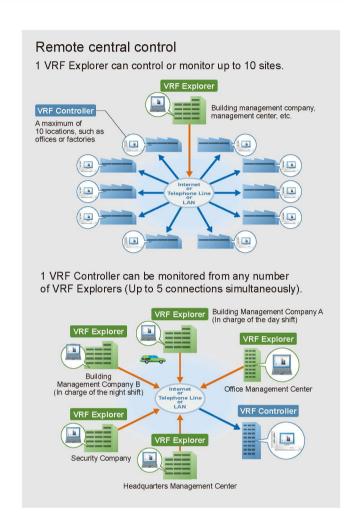






System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 softwares working together. VRF Controller runs on site and communicate with VRF system. VRF Explorer runs remotely and provides user interface and communicate with the VRF 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.





#### Can be used for a variety of applications

#### Air conditioning management for large shopping malls or the outlets of nationwide franchises

- Remote centralized management can be used for nighttime only to manage the air conditioning of multiple stores, operate air conditioning for people working overtime, and checking to see if employees forgot to turn off the air conditioning after they leave.
- · Multiple users via a LAN can control the air conditioning in the office, general affairs department, or janitor's roor
- The air conditioning for franchise locations nationwide can be centrally controlled from headquarters to facilitate operation status and control to save energy







#### Air conditioning management of multiple buildings spread over a large site

- · Batched operation of the factory buildings on a large site can be remotely conducted from the management office of the administration building to employ power saving operation.
- The headquarters can conduct centralized remote monitoring of the company's factories in outlying areas to improve the power saving effect for the entire company.
- Controlling the operation of each building and each classroom on campus makes it possible to reduce expenses by remotely controlling those spaces in accordance with the teaching



Hospitals

#### Provides high-quality building air conditioning service

- Service companies that manage buildings that are empty at night after the managers leave to go home can conduct centralized remote monitoring of the building without dispatching employees to the site, which allows them to monitor the air conditioning for multiple clients.
- The System Controller remote monitoring and control functions can be used to receive outsourcing business from small and medium size building owners to manage their air conditioning energy.
- Nighttime only remote monitoring of multiple properties after the people leave can be performed for areas that require 24-hour operation, such as server rooms, to monitor for problems.



Service Companies

#### Security Support



#### **Employs SSL Encryption Technology**

Encryption technology is used for communications to remote sites to prevent information from being stolen.



#### **Detailed User Management**

User identification: Authorization using user IDs and passwords is employed to prevent unauthorized access.

Access authority: The functions that can be used are restricted for individual login users to prevent unauthorized use.















#### **Schedule control**

- 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 units

- Indoor unit operation state, operation mode, etc. are displayed
- · Indoor unit start / stop and operation mode switching
- Temperature setting, Remote Controller prohibition.



#### 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.



#### **Prohibition Setting**

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

#### Multiple language display

Corresponds to 7 different languages (English, Chinese, French, German, Spanish, Russian, Polish)

#### **Operating Conditions**

Wibu Key (Software protection key)

The following chart shows the detail requirement for an AT compatible personal computer to run System Controller. Applies for both VRF Controller and VRF Explorer PC.

Personal Computer		AT compatible machine that runs Microsoft® Windows®
	Operating System	Microsoft® Windows® XP Professional (Service Pack 3 or later / English version) Microsoft® Windows Vista® Home Premium, Business (Service Pack 2 or later / Corresponds to 7 different languages.*) Microsoft® Windows® 7 Home Premium, Professional (Corresponds to 7 different languages.*) *English, Chinese, French, German, Spanish, Russian, Polish •64-bit version of Windows® are not supported.
	CPU	Intel® Pentium® / Celeron 2 GHz (VRF Controller), 1 GHz (VRF Explorer) or higher
	HDD	40 GB or more of free space (5 GB for VRF Explorer PC)
	Memory	2 GB or more (VRF Controller), 1 GB or more (VRF Explorer)
	Display	1024 x 768 dots or more. 15 inch or higher size is preferable.
	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		Requires the internal graphics accelerator be compatible with Microsoft® DirectX® 9.0
Other Software Requ	ired	Adobe® Reader® 9.0 or later
OPTION AVAILABL	.E>	
Energy Manager	UTY-PEGX(*1)	Additional support for energy saving function and Electricity Charge Apportionment using electricity meter.
PACKING LIST>		
Item	Q'ty	Application
CD-ROM	1	Includes the software for System Controller. Both VRF Controller and VRF Explorer software is included.

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
\*1: Energy Saving Software (UTY-PEGX) is available for the indoor units and the outdoor units after revision code B

Software protection key to be inserted in a USB slot running System Controller.

System Controller may only run on a PC with Wibu Key. Remote VRF Explorer software does not require Wibu Key.











# Network Convertor

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





Max. connectable

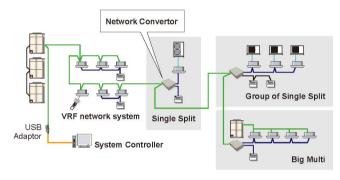
4

Group Remote
Controllers

#### **Functions**

#### Used for connecting single split system

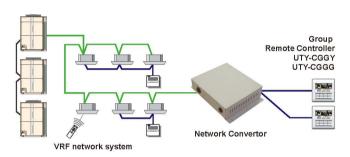
- Split type systems can be centrally controlled from Touch Panel Controller or System Controller through connection to the VRF's network convertor.
- On / Off Control, Master control, Room temperature and Fan speed setting via the Network Convertor are available.
- One Network Convertor can be used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



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

## Used for connecting Group Remote Controller

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

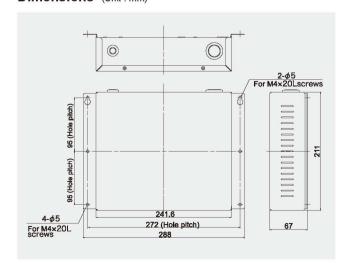


\* 2 refrigerant circuits can be covered by a single Network Convertor (UTY-VGGXZ1) . Up to a total of 16 Network Convertors (UTY-VGGXZ1) and System Controller adaptors can be connected in a single VRF network system.

#### **Specifications**

Model name	UTY-VGGXZ1
Power Supply	220-240V 50/60Hz
ower Consumption (W)	8.5
imensions (H x W x D) (mm)	67 x 288 x 211
Veight (g)	1,500

#### Dimensions (Unit:mm)

















UTY-VLGX

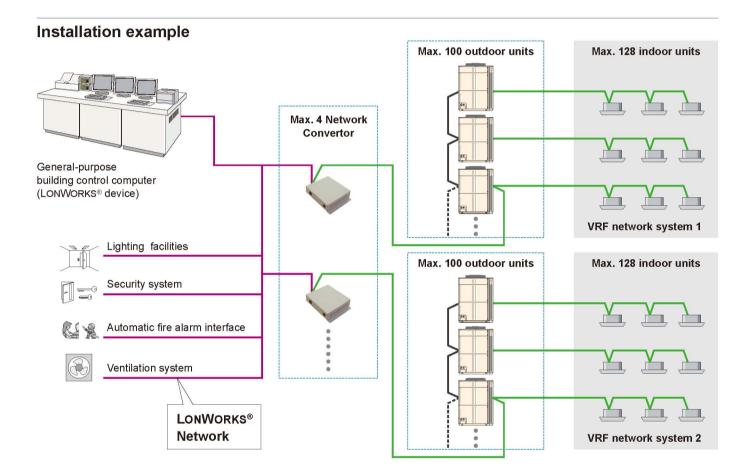


Max. controllable 4 Units to BMS

Max. controllable 100 Outdoor units

Max. controllable 128 Indoor units

- 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®



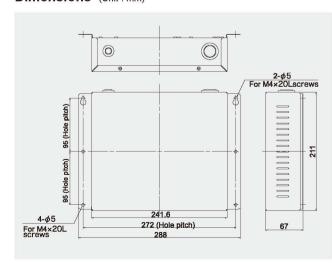
#### **Specifications**

Model name	UTY-VLGX				
Power Supply	220-240V 50/60Hz				
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)













## BACnet® Gateway

#### **UTY-ABGX**

- It is possible to connect medium to large sized BMS to VRF network system via BACnet®, a global standard for open networks
- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet® Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- $\bullet \ \, \text{Compatible with BACnet} \\ ^{\circledcirc} \ \, \text{(ANSI/ASHRAE-135-2004) application specific controller (B-ASC)}. \\$
- 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.



CD-ROM (Software)



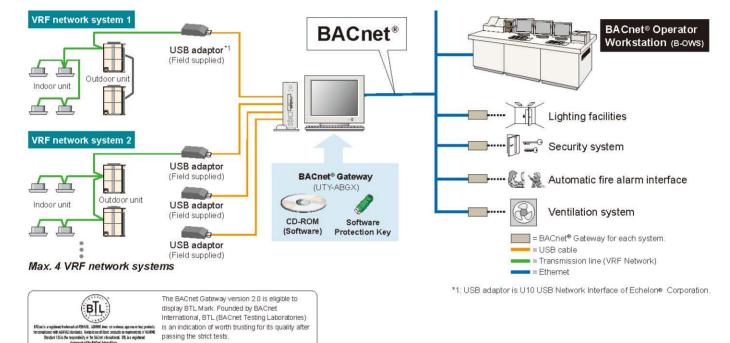
1,600

Max. controllable

400

# **Protection Key**

#### Installation example



### PERSONAL COMPUTER SPECIFICATIONS

	For BACnet® Gateway (UTY-ABGX)
CPU	At compatible machine that runs Microsoft® Windows® Intel® Pentium® / Celeron®, AMD Athlon / Duron processor 2 GHz or higher
Hard Drive	40 GB or more of free space
Memory	2 GB or more
Display	1024 x 768 dots or more, High color (16bit) or more
Interface	USB port (x 2-5) is required Ethernet port is required
Operating System	Microsoft® Windows® XP Professional (Service Pack 3 or later / English version) Microsoft® Windows Vista® Home Premium, Business (Service Pack 2 or later / Corresponds to 7 different languages.*) Microsoft® Windows® 7 Home Premium, Professional (Corresponds to 7 different languages.*) *English, Chinese, French, German, Spanish, Russian, Polish -64-bit version of Windows® are not supported.
Required Hardware	CD-ROM drive
Required Software	Adobe® Reader® 9.0 or later
PACKING LIST>	
Packing List	CD-ROM / Wibu Key

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

















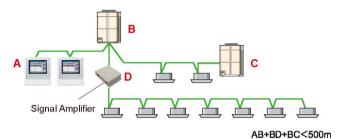
## Signal Amplifier

#### **UTY-VSGX**

- 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 transmission line exceeds 500m.
- (2) When the total number of units on the transmission line exceeds 64.



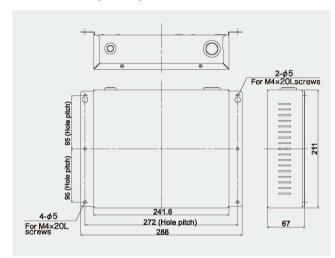
#### Installation example



#### **Specifications**

Model name	UTY-VSGX
Power Supply	220-240V 50/60Hz
Power Consumption (W)	4.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

#### Dimensions (Unit:mm)



## **External Switch Controller**

#### **UTY-TEKX**

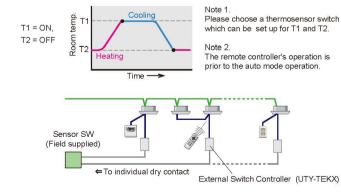
Air conditioner switching can be controlled by connecting other sensor switches

- 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.

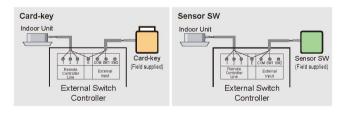
#### Installation example

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



#### **Electrical wiring**



#### **Specifications**

Model name	UTY-TEKX
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 75 x 30
Weight (g)	90

DC12V is supplied by the indoor unit.











## Service Tool

Software

#### **UTY-ASGX**

Extensive monitoring and analysis functions for installation and maintenance.

- Operation status can be checked and analyzed to detect even the small abnormalities.
- Data collected and stored on site can be checked later, off-line, off-site for more detail analysis.
- One VRF network system with maximum number of up to 400 units can be monitored and controlled.
- Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, graphs as well.
- Simple operation control functions are useful during maintenance.
- The recent error history can be retrieved from units on demand to perform analysis on the cause of the error, after connecting Service Tool to the VRF network system.
- Commissioning tool supports test runs, data storage for each unit and saving of data as CSV files, which may be formatted to create commissioning report.
- Connectable to any point of transmission line with USB adaptor\*1 (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- New 8 functions are added for V-II series and service performance is advanced furthermore. (supported by Ver. 1.1 or later)
- \* 1: Service Tool (UTY-ASGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type(UTR-YTMA)

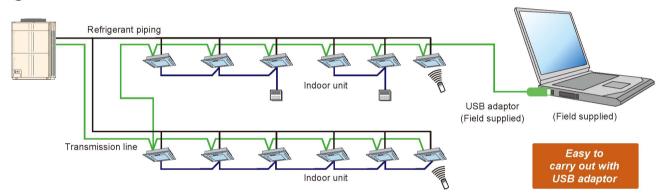


Max. Monitor and control

400
Indoor units



#### Wiring connection



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

#### **Functions**

#### 1) System List

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

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#### 2) Equipment Detail (Diagram)

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



#### 3) Equipment Detail (List)

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



#### 4) Operation History

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















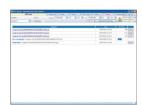
#### 5) Error History

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

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#### 6) Remote File Download

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



#### 7) Commissioning Tool

Test run commands can be executed with this tool.

During test running, the outdoor unit / indoor unit sensor data can be saved (commissioning log data).

After the end of test running, this data can be exported in CSV file format.

#### 8) Network Topology Analyzer \*

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



#### 9) Remote Setting \*

Function (Field) Setting for indoor unit is realized remotely



#### 10) System Time Setting \*

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

#### 11) Software Version \*

The software version of units are acquired and displayed.



#### 12) Central Release \*

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

#### 13) Model Name Writer \*

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

#### 14) Error Memory Reader \*

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

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

#### 15) Time Guard Information \*

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

\*: Supported by Ver. 1.1 or later

#### PERSONAL COMPUTER SPECIFICATIONS

Operating System	AT compatible machine that runs Microsoft® Windows®  Microsoft® Windows® XP Professional (English version / Service pack 3 or later)  Microsoft® Windows® Vista® Home Premium, Business Edition (English version)  Microsoft® Windows® 7 Professional (English version)
	*64-bit version of Windows® are not supported.
CPU	Intel® Pentium® / Celeron®, AMD Athlon™ / Duron™ 1 GHz or higher
HDD	10 GB or more of free space
Memory	1 GB (Vista, 7), 512 MB (XP) or more
Interface	USB port for U10 USB Network Interface and Software protection key.
Required Software	Internet Explorer 6.0 or 7.0 or 8.0 / Adobe® Reader® 9.0 or later
Required Hardware	CD-ROM drive
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Packing List	CD-ROM / Wibu Key
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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















1600

## Web Monitoring Tool

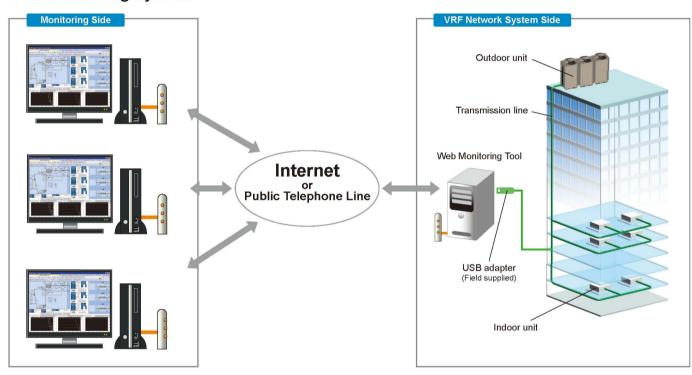
#### **UTY-AMGX**

#### Software

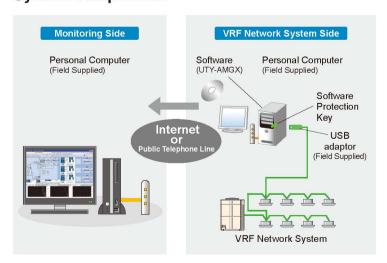
#### Product features

- Troubleshooting is performed by monitoring each unit remotely during periodical system checks off-site.
- · Operation status can be checked and analyzed to detect even the smallest abnormalities.
- Four VRF network systems each with 400 units, with maximum number of up to 1,600 units can be monitored and controlled.
- . Operation status and various sensor information can be monitored and checked real time in the form of list, refrigerant circuit diagram, and graphs as well.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in off-line mode of the Service Tool.
- Error notification can be automatically transmitted to several locations using the internet\*1
- · Monitoring side computer is not required to install special software, requires only general web browser.
- Connectable to any point of transmission line with U10 USB interface\*2 (field supplied)
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- · New 6 functions are added for V-II series and service performance is advanced furthermore. (supported by Ver. 1.1 or later)
- \* 2: Web Monitoring Tool (UTY-AMGX) will only support USB type network adaptor and will not support transmission adaptor of the traditional type (UTR-YTMA).

#### **Web Monitoring System**



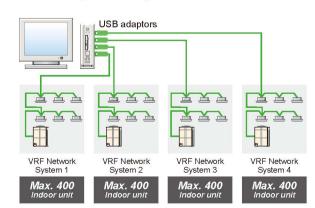
#### System components



#### Support 4 VRF network systems

USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units.

Suitable for large-scale buildings or hotels.



















No.	ltem	Service Tool	Web Monitoring Tool UTY-AMGX				
		UTY-ASGX	VRF network system Side	Monitoring Side			
1	Interchangeability of equipment	•	•	•			
2	Indication of equipment list	•	•	•			
3	Operation control	•	•	St E			
4	Indication of refrigerant circuit diagram	•	•	•			
5	Commissioning tool	•	•	<u> </u>			
6	Monitoring of equipment information	•	•	•			
7	Monitoring of operating condition	•	•	•			
8	Monitoring of sensor data	•	•	•			
9	Storage and CSV output of operating history (sensor data)	•	•	•			
10	Indication of trend graph	•	•	•			
11	Printing of trend graph	•	•	•			
12	Monitoring and screen display of abnormalities	•	•	•			
13	E-mail automatic transmission of abnormalities	0	•*1	0			
14	Setting for user level		•	1			
15	Network Topology Analyzer *	•	•	87			
16	Remote Setting *	•	•	£			
17	System Time Setting *	•	•	35			
18	Software Version *	•	•	8			
19	Central Release *	•	•	3—3			
20	Model Name Writer *	•		81			
21	Error Memory Reader *	•	_	0			
22	Time Guard Information *	•	•	•			

### PERSONAL COMPUTER SPECIFICATIONS

	AT compatible machine that runs Microsoft® Windows®			
	Microsoft® Windows® XP Professional (English version / Service pack 3 or later)			
Operating System	Microsoft® Windows® Vista® Home Premimum, Business Edition (English version)			
	Microsoft® Windows® 7 Professional (English version)			
	⁵64-bit version of Windows® are not supported.			
CPU	Intel® Pentium® / Celeron®, AMD Athlon™ / Duron™ 1 GHz or higher			
HDD	40GB or more of free space			
Memory	1 GB or more			
	USB port (for U10 USB Network Interface Max.4 , Software protection key)			
Interface	Following interface is required for remote connection:			
menace	Public Telephone Line : Modem is required			
	Internet using LAN : Ethernet port is required			
Required Software	Internet Explorer 6.0 or 7.0 or 8.0 / Adobe® Reader® 9.0 or later			
Required Hardware	CD-ROM drive			
PACKING LIST>	•			
Packing List	CD-ROM / Wibu Key			

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









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





## **Energy Recovery Ventilator**

Models

UTZ-BX025A UTZ-BX035A UTZ-BX050A UTZ-BX080A UTZ-BD100A



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



#### Heat exchange ventilation and normal ventilation

#### Heat exchange ventilation

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

#### Normal ventilation

This is used in spring and autumn, when rooms are not cooled or heated, that is, when there is little difference between the indoor and outdoor air conditions. In addition, at night during the hot season, when the outside air temperature drops the outside air is drawn inside without heat exchange, alleviating the load on the air conditioning equipment.

#### Adopts a highly efficient counter-flow heat exchange element





#### **Specifications**

Rated flow rate			250 m³/h	350 m³/h	500 m³/h	800 m³/h	1000 m³/h	
Mode	Model No.			UTZ-BX025A	UTZ-BX035A	UTZ-BX050A	UTZ-BX080A	UTZ-BD100A
Power source				220 - 240V, 50Hz				
	Input power	(Extra high) / High / Low	W	119 / 99 / 79	154 / 124 / 117	214 / 169 / 151	347 / 309 / 302	445 / 360 / 332
	Air flow rate	(Extra high) / High / Low	m³/h	250 / 250 / 170	350 / 350 / 280	500 / 500 / 370	800 / 800 / 650	1,000 / 1,000 / 810
띨	External static pressure	(Extra high) / High / Low	Pa	90 / 80 / 37	95 / 65 / 42	105 / 70 / 38	140 / 110 / 70	90 / 55 / 35
CHAN	Temperature Exchange Efficiency	(Extra high) / High / Low	%	75 / 75 / 77	75 / 75 / 77	75 / 75 / 77	75 / 75 / 76	75 / 75 / 76
HEAT EXCHANGE VENTILATION	Energy Exchange Efficiency Cooling	(Extra high) / High / Low	%	63 / 63 / 66	66 / 66 / 69	62 / 62 / 67	65 / 65 / 68	65 / 65 / 68
	Energy Exchange Efficiency Heat pump	(Extra high) / High / Low	%	70 / 70 / 73	69 / 69 / 71	67 / 67 / 71	71 / 71 / 74	71 / 71 / 73
	Sound pressure level	(Extra high) / High / Low	dB*	28 / 26 / 21	32 / 29 / 25	34 / 31 / 25	38 / 36.5 / 32	37.5 / 36 / 31
	Input power	(Extra high) / High / Low	W	119 / 98 / 79	151 / 119 / 113	210 / 161 / 145	337 / 300 / 297	438 / 358 / 329
NORMAL VENTILATION	Air flow rate	(Extra high) / High / Low	m³/h	250 / 250 / 170	350 / 350 / 280	500 / 500 / 370	800 / 800 / 650	1,000 / 1,000 / 810
NA I	External static pressure	(Extra high) / High / Low	Pa	90 / 80 / 37	95 / 65 / 42	105 / 70 / 38	140 / 110 / 70	90 / 55 / 35
일핑	Sound pressure level	(Extra high) / High / Low	dB*	27 / 26.5 / 21.5	31 / 30 / 26	34 / 32 / 26.5	38.5 / 37 / 33	38 / 36.5 / 31.5
Dimensions (W × D × H) mn		mm	882 x 599 x 270	882 x 804 x 270	962 x 904 x 270	1,322 x 884 x 388	1,322 x 1,134 x 388	
Weight kg		kg	29	37	43	71	83	
Outlet duct diameter mm		mm	150	150	200	250	250	
Operation range °C		°C	-10 to 40	-10 to 40	-10 to 40	-10 to 40	-10 to 40	
Maximum humidity %		%	85	85	85	85	85	

<sup>\*</sup> The noise level must be measured 1.5 m below the centre of the unit.















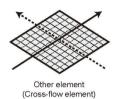
### Energy efficiency and ecology

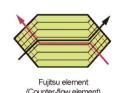
Energy consumption is dramatically reduced by using a counterflow heat-exchange element. Air conditioning load is reduced by approximately 20%, resulting in significant energy savings. Recovers up to 77% of the heat in the outgoing air.



#### Features of heat exchange element

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





#### Features of heat exchange element

Significantly reducing low pressure loss and noise allows low-noise operation of 32 dB (High) or less for models with a capacity of 500 m3/h or less, and 37.5 dB (High) for models with a capacity of 1,000 m<sup>3</sup>/h.

#### Long heat-exchanger service life

Cleaning reduced due to the special material heat exchanger. The nylon/polyester fibre filter offers high dust retention capacity.

#### Slim shape and easier installation

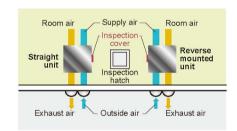
Counter-flow heat exchange element used for reduced noise and slimmer, more compact body shape.



#### Reverse mountable direct air supply / exhaust system

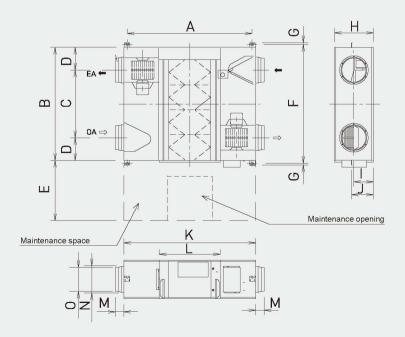
Adoption of straight air supply / exhaust system: Duct design is simplified because the air supply / exhaust ducts are straight.

Since each unit can be mounted in reverse position, only one inspection hole is needed for two units: Two units can share one inspection hole so duct work is easier and more flexible.



#### Dimensions (Unit: mm)

Models: UTZ-BX025A / UTZ-BX035A / UTZ-BX050A / UTZ-BX080A / UTZ-BD100A



	UTZ-BX025A	UTZ-BX035A	UTZ-BX050A	UTZ-BX080A	UTZ-BD100A
Α	810	810	890	1,250	1,250
В	599	804	904	884	1,134
С	315	480	500	428	678
D	142	162	202	228	228
Е	600	600	600	600	600
F	655	860	960	940	1,190
G	19	19	19	19	19
Н	270	270	270	388	388
-1	135	145	145	194	194
J	159	159	159	218	218
K	882	882	962	1,322	1,322
L	414	414	414	612	612
M	95	95	107	85	85
N	219	219	246	258	258
0	144	144	194	242	242











**OTHERS** 



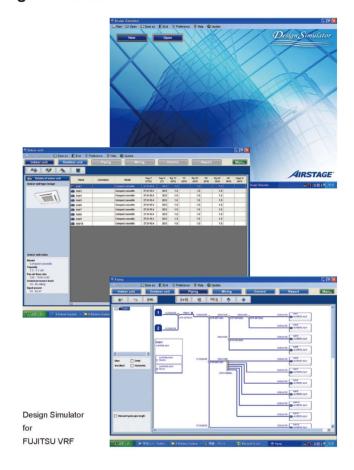
## VRF System Design

#### 1. Quick model selection and design tool "Design Simulator" for VRF

Fujitsu General offers software which quickly performs model selection and creates material for model estimation in the VRF initial design stage. "Design Simulator" has functions which automatically select the proper model for the required capacity, automatically draft piping diagrams and wiring diagrams, and also automatically calculate the additional refrigerant charge amount, automatically generates the reports necessary for estimation. Operation is also easily performed by drag & drop and full-fledged model design estimates can be quickly made.

#### **Features**

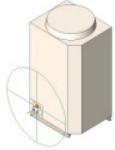
- · Automatic model selection of indoor unit and outdoor unit
- Simple drag & drop operation
- Automatic generation of piping diagrams and wiring diagrams
- · Automatic calculation of additional refrigerant charge amount
- Auto CAD Data (DXF), Revit Mep Data (RFA) export
- Automatic report generation (Word, Excel)
- Multi-language capability



#### 2. 2D (DXF), 3D (RFA) contents data

Two kinds of model data, DXF data and RFA data, necessary in detailed design are offered.

These data can be procured from the Fujitsu General web site and **Design Simulator** 





RFA data FGL Web site



















## **Optional Parts**

#### **Controllers**

Wired Remote Controller UTY-RNK\*



#### Simple Remote Controller

UTY-RSK\* With operation mode



#### Simple Remote Controller

UTY-RHK\* Without operation mode



**Wireless Remote Controller** 



IR Receiver Unit

UTB-YWC UTB-TWC



IR Receiver Kit

UTY-LRHYB1 UTY-LRHGB1



For All Duct type

**Group Remote Controller** UTY-CGG\*



**Central Remote Controller** 

UTY-DCG\*



**Touch Panel Controller** 

UTY-DTG\*

For Cassette type



System Controller Software UTY-APGX



K\*: KY (FUJITSU), KYT (FUJITSU), KG (GENERAL) H\*: HY (FUJITSU), HG (GENERAL) G\*: GY (FUJITSU), GG (GENERAL)

#### **Convertors / Adaptors**

**Network Convertor** 

UTY-VGGXZ1

Network Convertor for LONWORKS® UTY-VLGX



BACnet® Gateway Software

UTY-ABGX





CD-ROM (Software)

Signal Amplifier UTY-VSGX



**External Switch Controller** 

UTY-TEKX







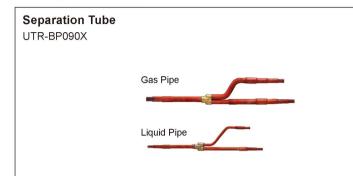


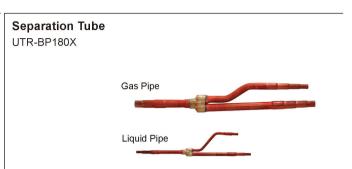


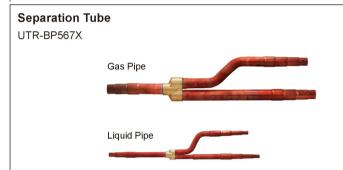


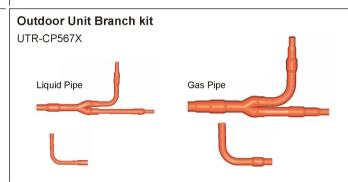


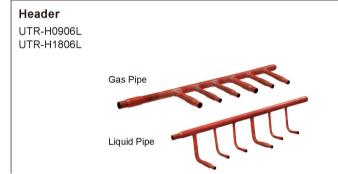
#### **Connection Tube**

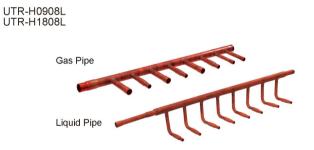












#### **Specifications**

#### Outdoor unit Branch kit

Model name		UTR-CP567X
Number of Outdoor unit	2 outdoor units	1
	3 outdoor units	2

Header

#### Separation Tube

Model name	UTR-BP090X	UTR-BP180X	UTR-BP567X
Total cooling capacity of indoor unit (kW)	28.0 or less	28.1 to 56.0	56.1 or more

#### Header

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

#### **EV** Kit

Model name	UTR-EV09XB	UTR-EV14XB
Application Model	AS*E07LACH AS*E09LACH	AS*E12LACH AS*E14LACH

AS\*: ASY(FUJITSU), ASH(GENERAL)













#### **Others**

#### Flange (Round)

UTD-RF204

For Low Static Pressure Duct type / Duct type / Ceiling type



#### Flange (Square)

UTD-SF045T

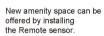
For Low Static Pressure Duct type / Duct type



#### **Remote Sensor Unit**

UTD-RS100

For All Duct type





#### Long-Life Filter

UTD-LF25NA

For Low Static Pressure Duct type / Duct type



#### Long-Life Filter

UTD-LF60KA

For ARXC36/45/60LATH



#### **Auto Louver Grille Kit**

UTD-GXSA-W (for ARXD07/09/12/14LATH) UTD-GXSB-W (for ARXD18LATH) UTD-GXSC-W (for ARXD24LATH)

For Slim Duct type



#### **Drain Pump Unit**

UTZ-PX1BBA

For Compact Duct type



For Low Static Pressure Duct type Duct type



#### **Drain Pump Unit**

UTR-DPB24T

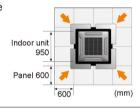
For Ceiling type



#### Wide Panel

UTG-AGYA-W

For Cassette type



#### Air Outlet Shutter Plate

UTR-YDZB

For Compact Cassette type

Shuts the air outlet when only using as 3 blow out.



#### **Air Outlet Shutter Plate**

UTR-YDZC

For Cassette type

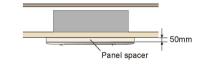
Shuts the air outlet when only using as 3 blow out.



#### **Panel Spacer**

UTG-BGYA-W

For Cassette type



#### **Grille Kit**

UTG-UFYC-W UTG-UFGC-W

### **Grille Kit**

UTG-UGYA-W UTG-UGGA-W



### **Insulation Kit for High Humidity**

UTZ-KXGA For Cassette type

UTZ-KXGB For Slim Cassette type UTZ-KXGC For Compact Cassette type



For Compact Cassette type

For Cassette type

UTZ-VXGA

Fresh Air Intake Kit



#### Fresh Air Intake Kit

UTZ-VXAA



Model code < 09 : UTR-EV09XB

Model code ≥12 : UTR-EV14XB



For Compact Cassette type

For Cassette type



For Compact Wall Mounted type



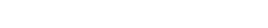








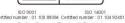




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