



Variable Refrigerant Flow System

## Multi Air Conditioning System for Buildings



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



## Building air conditioning developed to care for people and their surroundings



## Large Capacity Multi VRF System

The ability to connect 3 outdoor units together in series up to a total capacity of 42HP (120kW) in each 2HP offers greater design freedom, reducing the number outdoor units and piping installation space compared the conventional models.

## DC Inverter Control Compressor

The introduction of high efficiency DC inverter compressors and the latest in control technology provides more precise operation, improving system efficiency, resulting in energy saving and better economy.

## Long Piping System Design

Maximum piping length 150m. Key design features allows 60m between the first separation tube and farthest indoor unit. This also allows use in large buildings and provides a high degree of design flexibility.

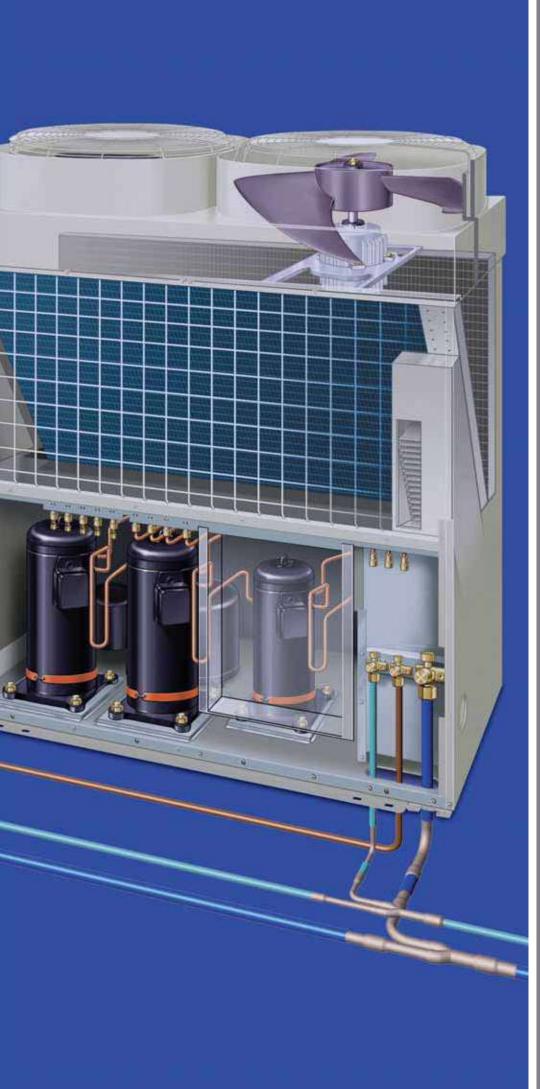
## High Efficiency Refrigerant R410A

The V series systems operates using the zero ozone layer depleting potential, high efficiency refrigerant, R410A. This refrigerant provides increased energy efficiency, system performance and heat transfer, resulting in a reduction in pipe sizes compared to previous models. This also leads to cost savings during the installation phase of a project.

## AIRSTAGE SERIES

Variable Refrigerant Flow System

Multi Air Conditioning System for Buildings



## Contents

■ V series features	
1. HIGH RELIABILITY	
2. IMPROVED COMFORT	
3. HIGH EFFICIENCY OPERATION	
4. DESIGN FREEDOM	
5. EASY INSTALLATION	
6. SERVICE & MAINTENANCE	
■ Control	
Control System	
Comparison with Controllers	
Wiring System·····	
PC Controller	
Central Remote Controller	
Group Remote Controller  Wired Remote Controller	
Simple Remote Controller	
Wireless Remote Controller	
External Switch Controller	
IR Receiver Unit·····	
BACnet® Gateway······	
Network Convertor for LonWorks®	
Network Convertor Ior Lonworks	
Transmission Adapter	
Signal Amplifier	
Service Tool·····	
Web Monitoring Tool·····	
■ Outdoor units	
Line Up	38
■ Indoor units	
Line Up	10
Compact Cassette	
Cassette ······	
Compact Duct ·····	46
Low Static Pressure Duct / Duct	48
High Static Pressure Duct	50
Floor / Ceiling ······	52
Ceiling	54
Compact Wall Mounted(Comfort model)	56
Wall Mounted	58
Ceiling Wall ·····	60
■ Ontional Parts	60

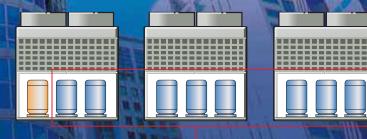
## **HIGH RELIABILITY**

High reliability provides a constant comfortable indoor environment

## **Compressor rotation control**

Improvement of long life by reducing compressor wear

In addition to control which reduces the number of times the compressor is started and stopped, the load at starting is shared and equalized by rotation control. This rotation improves the durability and reliability of each compressor.



Compressor starting rotation (Constant speed)



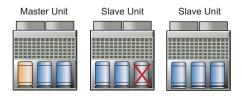


## **Emergency operation**

### **Outdoor unit**

## Continuous operation is possible even in the unlikely event of compressor failure

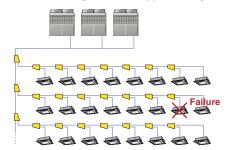
There is no immediate system shutdown if trouble occurs in any compressor. The other compressors continue to operate on an emergency basis.



### **Indoor unit**

## Continuous operation is possible even if trouble occurs at an indoor unit

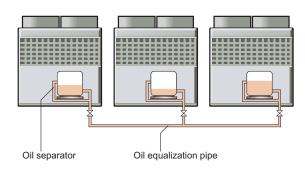
Each indoor unit is controlled individually on the system network. This allows all indoor units continue to run unaffected even if trouble should occur at any indoor unit(s) in one system.



## **Optimum oil control**

Stable operation of compressor by optimum oil control

- High trapping efficiency, large capacity cyclone type oil separator
- 2 Oil balance control which maintains uniform oil levels
- 3 Optimum EEV control for oil and refrigerant circulation



## Blue fin heat exchanger mounted

Corrosion-resistance of the heat exchanger even in coastal areas has been improved by blue fin treatment of the outdoor unit heat exchanger.



## Web monitoring tool

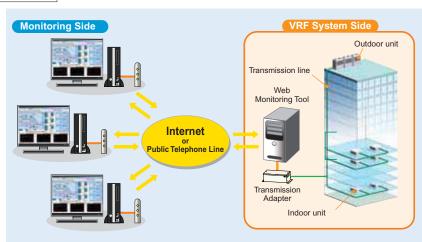
## **UTR-YMSA**

## Trouble free operation at all times by web monitoring tool

The operational status of the VRF system within the building can be monitored in real time over the Internet.



\*Please contact your distributor for details.



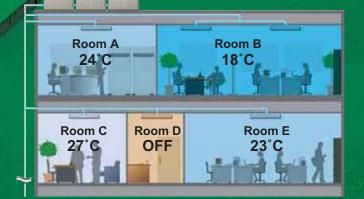
## **IMPROVED COMFORT**

Comfort ensured by high precision control technology



Individual air conditioning system

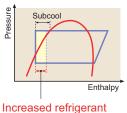
Pleasant air conditioning meeting individual room requirements.



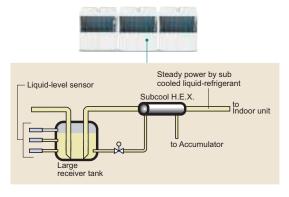
## Liquid level balance control

## Stable capacity and reduction of refrigerant noise by optimum state refrigerant

Balancing of the refrigerant in the system is optimized by liquid level balance control and subcool circuit between the receiver tanks of each outdoor unit. Stable refrigerant supply allows long pipe runs and achieves stable operational system performance whilst reducing unpleasant refrigerant noise.



capacity by subcool

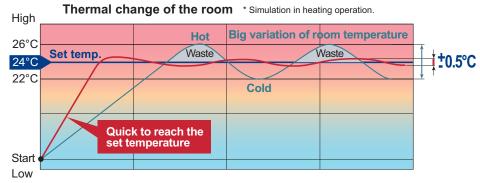


## Room temperature control

## Comfort at any time by high precision refrigerant flow control

High precision ± 0.5°C ensures comfortable temperature control of the room. This is achieved by smooth refrigerant flow, controlled by inverter and by the indoor unit electronic expansion valve.



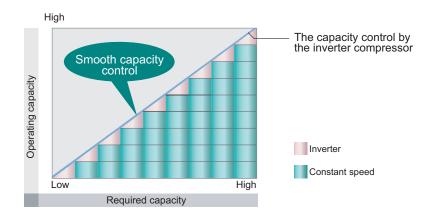


Comfortable due to small variation of room temperature

## Inverter control

## Comfort and energy saving achieved by implementation of inverter control

Comfort and energy saving is achieved by the adoption of linear step control in conjunction with inverter and constant speed compressor combination, which allows more precise control of the necessary refrigerant circulation amount required according to the system load. This also allows for a comfortable environment by use of smooth capacity control.



## Super quiet

### **Outdoor unit**

## Quiet operating sound outdoor unit achieved

Operating noise has been reduced further through the application of a new dual casing bell mouth and large fan. The noise level can be reduced by 4-5dB (A) compared to normal operation by selecting silent operation.



### **Indoor unit**

Quiet indoor units suited for bedrooms and other rooms which require quietness are available.









Compact Duct Low Static Pressure Duct
Silent Model Silent Model

Compact Wall Mounted
Comfort Model





## Large propeller fan

A newly designed fan is adopted for achieving higher performance and reducing the noise level.

## Sine-wave DC Inverter Control

By adopting Sine-Wave DC Inverter Control for smoothing the motor running, energy saving and high efficiency operation are realized

Adopted Sine-wave DC inverter control



By combining the DC inverter controlled scroll compressor with the constant speed scroll compressor, an operating system of energy saving and high efficiency is realized.

## High efficiency

compressor

All key features of the outdoor unit result in a higher level of COP



- \* The data refers to a 10HP outdoor unit.
- \* "COP" is the coefficient of performance [= capacity (kW) ÷ input power (kW)].

 $\ensuremath{\mathrm{\%}}\xspace$  COP values are base on our own testing method.

## High efficiency refrigerant R410A

Improvement of operation efficiency realized by adoption of a new refrigerant



Refrigerant characteristics (Comparison of R22 / R407C / R410A)

Refrigerant	R22	R407C	R410A
Composition element	Single component	Blended (Zeotrope)	Blended (Near azeotrope)
Working Pressure (As compared to R22)	_	Similar	Higher (1.6 times)
Capacity (As compared to R22)	_	Similar	Higher (1.5 times)
Pressure Loss (As compared to R22)	_	Similar	Lower (0.6 times)
Total Efficiency (As compared to R22)	_	Similar	Higher (1.05 times)

## **DESIGN FREEDOM**

Design features ensure solutions for all applications

## **Connectable large capacity**

Indoor units up to 150% of the capacity of the outdoor unit can be connected

The Indoor unit connection ratio of this system can be from 50 to 150%(\*1) of the outdoor unit capacity, thus achieving a high level of diversification with up to 48 indoor units (30 to 42HP) connectable on one refrigerant system.

\*1 Indoor unit connectable capacity is 75 to 150% for single outdoor unit system (8 - 14HP) in case of including indoor unit model code 18 and under in the system.



## Low outdoor air temperature operation

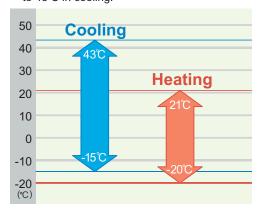
### **Expansion of operating ranges**

World's top class low outdoor air temperature operating range is achieved. This extends the potential locations for use to the cold regions of the world.





\*1 Note: When outdoor units connect multiple, operating range is from -5°C to 43°C in cooling.

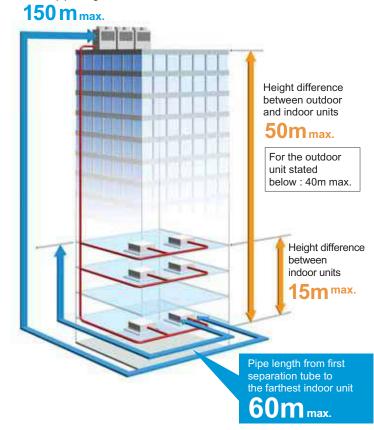


## Long piping system design

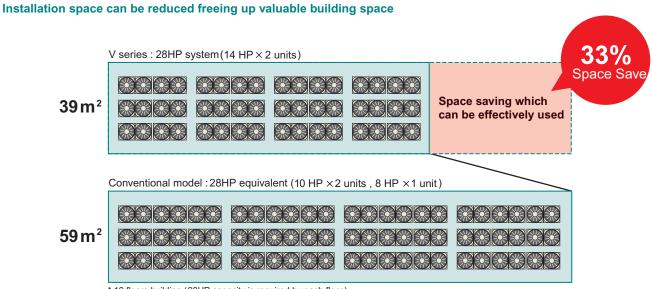
With the V Series, installation up to a maximum piping length of 150m and a maximum height difference of 50m is possible.

In addition, the piping can be extended up to a maximum of 60m from the first separation tube.

Actual pipe length



## Compact outdoor unit improves effective use of space



## **EASY INSTALLATION**

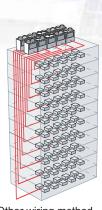
Multi air conditioning system for large buildings with numerous superior construction work features

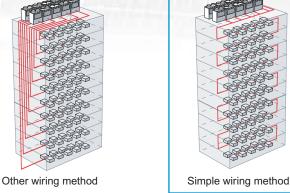


## Simple communication wiring

**Connection method simplifies installation** and prevents errors

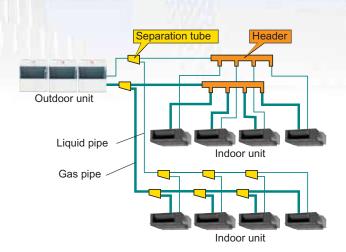
By using our wiring connection method, the wiring length is reduced compared to other wiring systems.





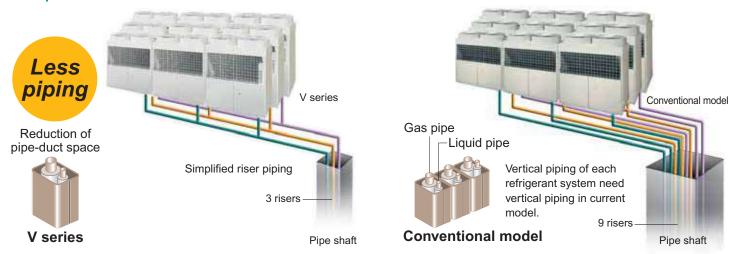
## Simple piping system

Separation tubes and headers provide connection flexibility and simplicity reducing installation costs.

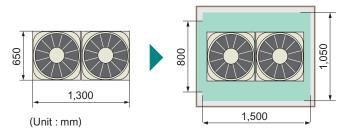


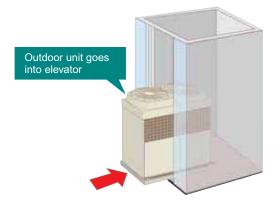
## Piping system allows reduction of the number of pipes

Example: 90HP=10HP x 3units x 3



## Compact outdoor unit can be carried in a small elevator

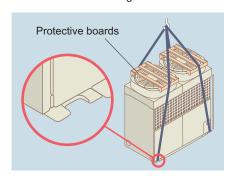




## Lifting belt hooks convenient in crane work

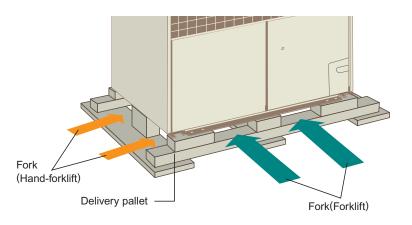
### **Craning into place**

The outdoor unit can be lifted by crane and set down on the building roof.



## Easy removing pallet

Delivery pallet can be easily removed and installation work can be performed speedily.



## Pipe size reduction

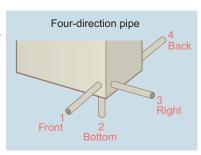
Use of R410A refrigerant allows for a pipe size reduction compared to the conventional system. This offers improvement in construction work and a reduction in piping costs.



## **Choice of 4-direction piping connection**

## **Piping connection**

4-direction piping allows a variety of installation configurations. Easy installation and pipe direction setting.





This VRF V Series has numerous special features which incorporate our newest technology. Service and maintenance are performed accurately and speedily. Confidently use pleasant air conditioning anytime.

## Improves maintenance and inspection mobility (Service Tool)

Extremely portable and convenient USB type adaptor was used. Connection anywhere in the VRF network is easy. Data can be collected from device sensors at a minimum interval of 2 second, and maintenance and inspection work can performed easily.

Outdoor unit



Transmission line

USB adaptor (Field supplied)

Service Tool Software

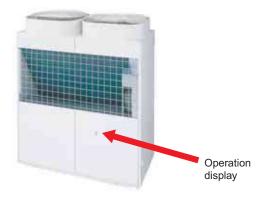
UTR-YSTC

Intdoor unit

## **Operating display**

## **Outdoor unit**

By indicating the operating status and details of failures on a PCB in the outdoor unit, better service and quick and easy maintenance are possible.



## Indoor unit

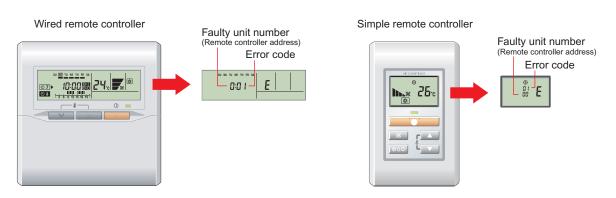
The operation status of the indoor unit can be easily checked by operation indicator. In addition, when an error occurs, the error contents are displayed and repair work can be performed quickly.



Note: For duct type indoor units, an IR receiver unit is necessary.

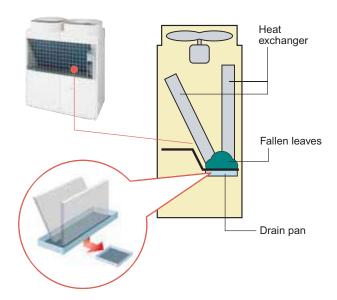
## Error display with self-diagnosis function

When an error or abnormality occurred in the system, the indoor unit No. and error code at which the error occurred are displayed at the display section of the controller. (Except wireless remote controller)



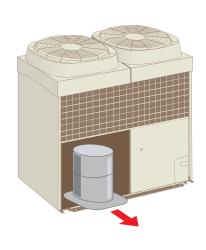
## Drain pan cleaning is easy

Detachable drain pan simplifies removal of fallen leaves collected in the drain pan at the bottom of the heat exchanger



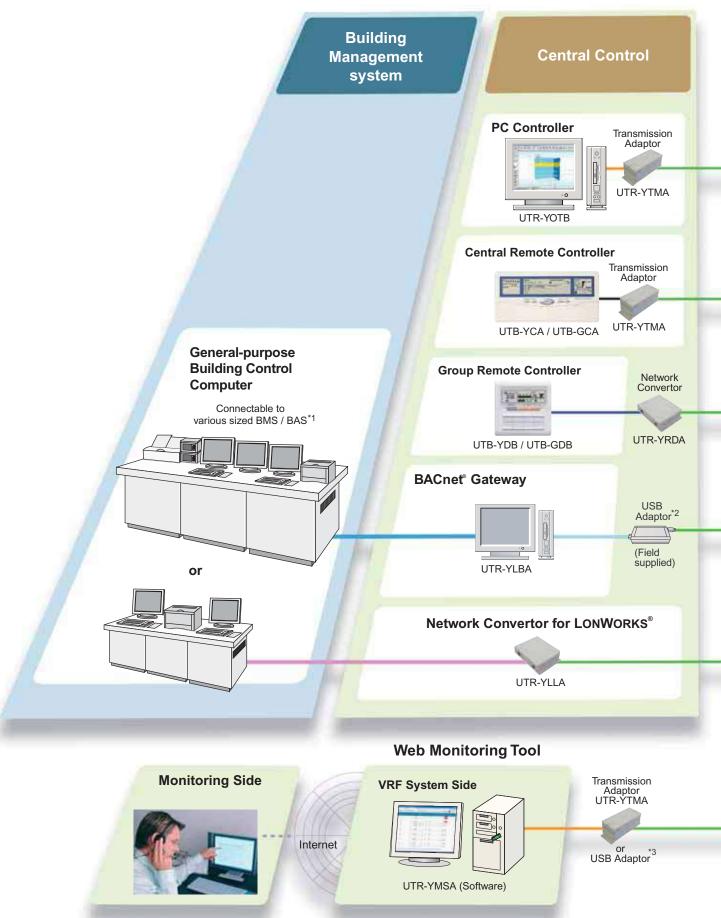
## Easy replacement

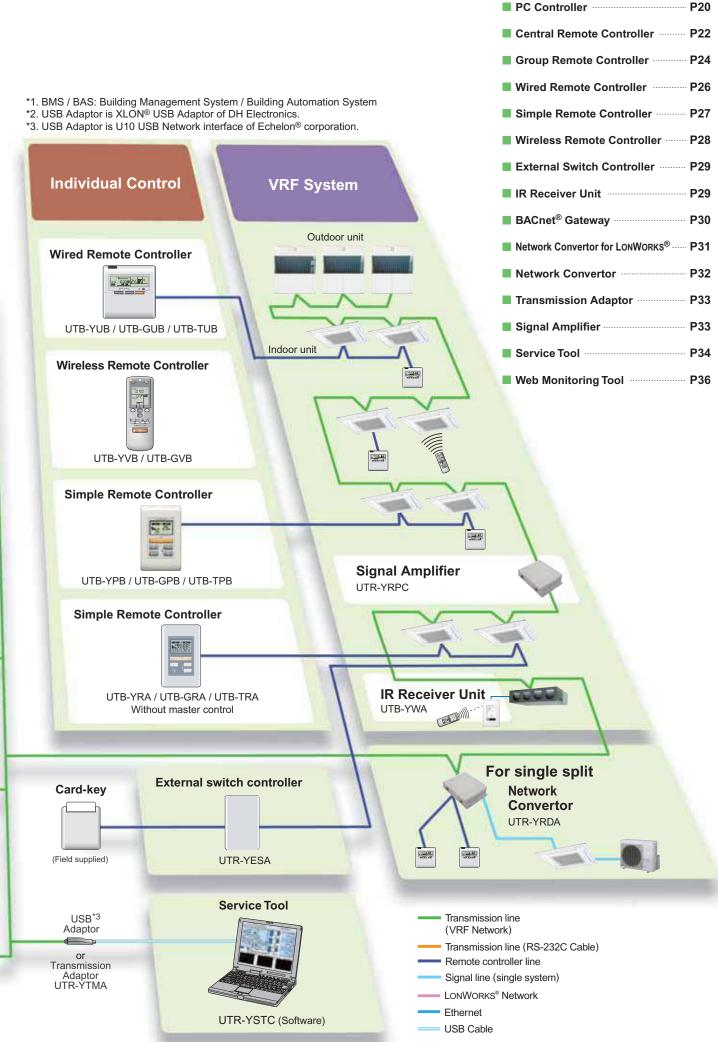
Compressor can be moved by pull-out tray which simplifies inspection and replacement work. A pull-out plate ensures easy compressor replacement if necessary.



## **Control System**

It supports every user's needs by offering a variety of control systems available, such as individual control, central control and building management system control options





## **Comparison with Controllers**

	Item	PC controller (software)	Central remote controller	Group remote controller	Wired remote controller	Wireless remote controller	Simple remote controller	Simple <sup>2</sup> remote controller
	Model	UTR-YOTB	UTB-YCA UTB-GCA	UTB-YDB UTB-GDB	UTB-YUB UTB-GUB UTB-TUB	UTB-YVB UTB-GVB	UTB-YPB UTB-GPB UTB-TPB	UTB-YRA UTB-GRA UTB-TRA
Ма	x. controllable remote controller groups	400	400	8	1	1	1	1
Ма	x. controllable indoor units	400	400	96	16	16	16	16
Ма	x. controllable groups	400	64	<u> </u>	<del>_</del>	<del>_</del>	<u> </u>	<del>_</del>
	On / Off	•	•	•	•	•	•	•
on	Operating mode setting	•	•	•	•	•	•	_
function	Fan speed setting	•	•	•	•	•	•	•
	Room temp. setting	•	•	•	•	•	•	•
control	Test operation	•	•	_	•	•	•	_
conditioning	Up / down air direction flap setting	•	•	_	•	•	_	_
ditio	Right / left air direction flap setting	•	•	_	•	•	_	_
	Auto restart*1	•	•	•	•	•	•	•
Air	Group setting	•	•	_	<del>-</del>	<del>-</del>	<del>-</del>	<del>-</del>
	RC prohibition	•	•	_	_	_	_	<del>-</del>
	Failure	•	•	•	•	_	•	•
	Defrosting	•	•	_	•	_	•	•
	Current time	•	•	•	•	•	_	_
Display	Day of week	•	•	•	•	<del>-</del>	_	<del>-</del>
οi	R.C.prohibition	•	•	_	•	_	•	•
	Cooling / heating priority	•	•	•	•	<del>-</del>	•	•
	Address display	•	•	•	•	_	•	•
	On / Off timer	•	•	_	•	•	_	<del></del>
	Weekly timer	•	•	•	•	_	_	_
	Sleep timer	_	_	_	_	•	_	<del>-</del>
er	Program timer	_	_	_	_	•	_	_
Time	On / Off per day	72	2	2	2	1	_	_
	On / Off per week	504	14	14	14	_	_	_
	Day off	•	•	_	•	_	_	<del>-</del>
	Min. unit of timer setting (Minutes)	10	10	10	30	5	_	_
	Status monitoring system	•	_	_	_	_	_	<u> </u>
Control	Electricity charge calculation	•	_	_	_	_	_	_
Co	Error history	•	•	•	•	_	•	•

<sup>\*1.</sup> Auto restart can be set by DIP switch on PCB inside of indoor unit.\*2. This controller is not available "master control" function.

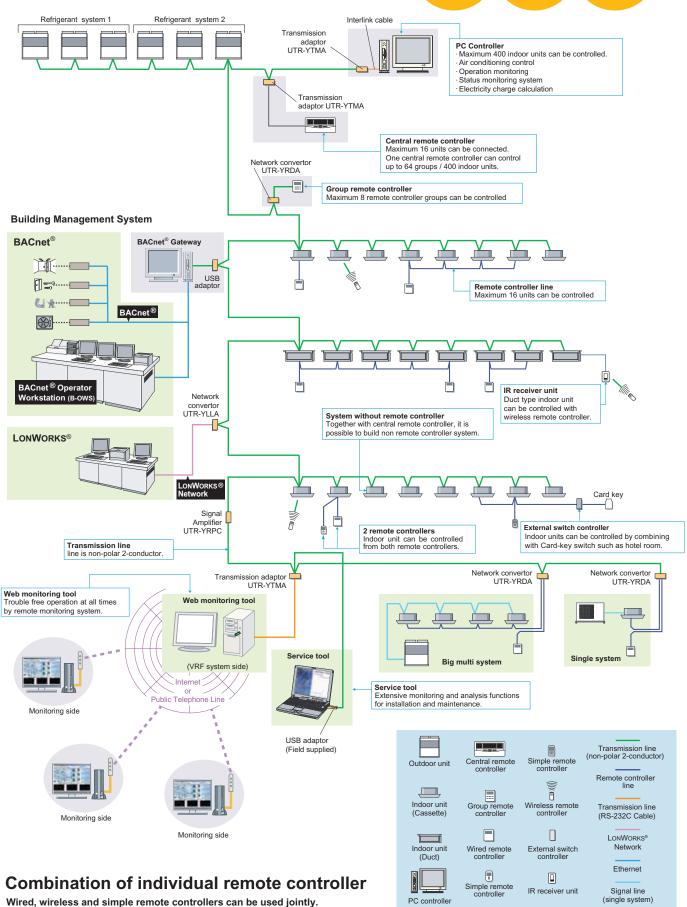
## Wiring System

- 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 2000m (by using signal amplifiers).

Connectable outdoor units

100
max.

Connectable indoor units
line length
2000
max.



PC Controller Software

**UTR-YOTE** 

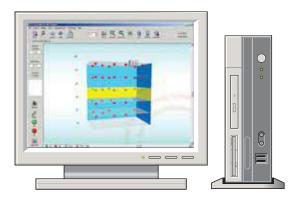
Max. controllable indoor units Groups

400
400

Max.
controllable
remote controller
groups
400

High performance and optimum control system for various building applications

- Up to 400 indoor units / 400 remote controller groups / 400 groups can be connected into one system for large scale buildings or hotels.
- Provides powerful functions for building air conditioning management, including electricity charge calculation and numerous data management functions, as well as standard equipment monitoring and control.



## **Functions**

## Central building monitoring and control

- Detailed settings can be programmed for each whole building / group / remote controller group.
- The PC controller and central remote controller can be used together to permit system control from two or more locations, if required.

## Central control

Any of 6 functions of the individual remote controller can be locked to permit access from the PC controller: all functions, timer mode, operating mode, temperature setting, filter reset, on / off. Or the system can be set to allow control from the PC Controller only.



Operation Control

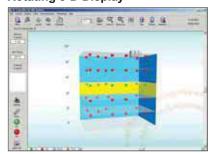
## Auto mode (Priority-mode changer)

Auto mode function automatically switches between cooling and heating modes based on the temperatures set and the room temperature detected by the master indoor unit. Other operating indoor units can be operated in the same operating mode as master unit.

## **User-friendly Operation**

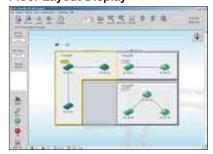
- Runs under Windows® 2000 and Windows® XP Professional / Home so is as easy to use as a standard PC.
- Operational status can be color-coded for instant recognition: On / green, Off / red, test / orange, error / flashing.
- Operational status can be displayed according to user's preference.

## **Rotating 3-D Display**



When monitoring and controlling the operations of a whole building.

## Floor Layout Display



When monitoring and controlling the operations of each floor or group.

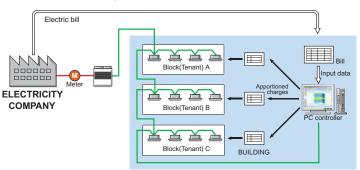
### List Table Display



When monitoring and controlling each unit in detail

## Electricity charge calculation

- Total electricity charge, billed for multiple indoor units connected to the charge meter for air conditioning, is apportioned according to the accumulated operation time and indoor unit capacity.
- Allows accounting for special rates (e.g., for night or weekend use).
- · Calculations can be printed as final bills.



Note: This electrical power apportioning calculation is not official. When issued to the user as a bill, it must be explained to the user in advance.

### Schedule control

- Annual schedules can be set for each remote controller group.
- Start / stop, operating mode, remote controller prohibition, and temperature settings can be recorded up to 72 times per day at 10 minute intervals for up to 6 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.
- Standard 6 functions are available by schedule control.

## Error display

Audible alarms are accompanied by explanatory text. Up to 100 alarms can be recorded for each piece of equipment, this is particularly useful during maintenance.



## Operating record

The operating status of indoor units and accumulated operating time of outdoor units can be logged and a daily or monthly report produced.



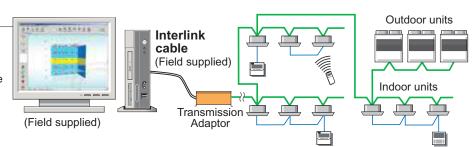
Operation Record

## Pattern setting

Recognizes patterns of use, including ON/OFF, operating mode, and set temperature. An arbitrary pattern operation can be done by the touch of one button.

## **Easy Installation**

- Simple connection by Transmission Adaptor and Interlink cable (Interlink cable field supplied).
- Easy software installation using just the CD provided.



## Requirements of PC for this software

		AT compatible machine that runs Microsoft® Windows®
	Operating System	Microsoft® Windows® 2000 Professional (English version / Service pack3 or later) Microsoft® Windows® XP Professional / Home (English version / Service pack1 or later)
Personal	CPU	Intel® Pentium® / Celeron®, AMD Athlon™/ Duron™1GHz or higher
Computer	puter HDD 4 GB or more	
·	Memory	256 MB or more
	Interface	Serial port and USB port
	Accelerator Requires that the internal graphics accelerator be compatible with Microsoft® DirectX® 7.0 or late	
Software		Adobe® Acrobat® Reader 4.0 or later
Hardware Ir		Interlink cable (D-sub 9 pin female connector) [Field supplied]

Schedule Control

### <PACKING LIST>

Packing List	CD-ROM / Transmission Adaptor (UTR-YTMA) / Software Protection Key
i doking List	ob Now, Handingslott Adaptor (OTTX TTW/), Continue Trotochort No.

## **Central Remote Controller**

UTB-YCA / UTB-GCA

Max. controllable indoor units

Max. controllable remote controller groups

Max. controllable groups

400

400

64

Functionality in a compact housing with built-in weekly timer

- Up to 400 indoor units / 400 remote controller groups / 64 groups can be controlled by one system.
- Up to 16 central remote controllers can be connected into one system allowing operation and monitoring to be achieved from the central control room, at each floor, by each tenant, or in the plant room.



## **Functions**

## ■ Control up to 400 indoor units

- The central remote controller performs system control after you select All Groups, User Defined Groups, or Individual Remote Controller Groups.
- Accurate control of functions such as Start / Stop, Operating Mode, Temperature, and Air Velocity ensures occupancy comfort.

All Groups

**User Defined Groups** 

Individual Remote Controller Groups

### Central control

Any of 6 functions of the individual remote controller can be locked from the Central Remote Controller: all functions, timer mode, operating mode, temperature setting, filter reset, on / off.

All functions can be controlled via the Central Remote Controller only.

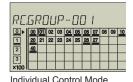
# Group Group Group Group Group Individual Individual Individual Individual Individual Individual

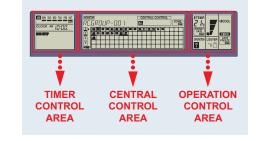
## **Easy Operation**

- Control functions are divided into three clusters: Timer Control, Central Control and Operational Control, which are clearly displayed.
- A large liquid crystal display clearly indicates which indoor unit is currently operating.









All Control Mode

Group Control Mode

## Built-in weekly timer

- Capable of controlling up to 400 indoor units, the timer function enables detailed scheduling for each remote controller group.
- · A simple approach to system configuration reduces wiring costs.
- 1.Allows two daily ON / OFF times for each day of the week.
- 2. Allows time settings in 10 minutes increments.
- 3.Time operations for a certain day can be temporarily cancelled by pressing the "DAY OFF" button in advance.
- 4. Timer settings can be carried over to the following day.
- 5. Daily time settings allow Copy and Paste functionality.

### **Example: Office**





Operation: Monday~Friday 8:00~12:00 and 13:00~18:00

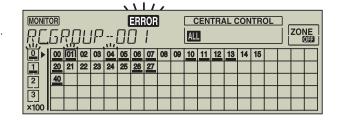
## Memory functions

Central remote controller maintains original settings for all indoor units. This data can easily be transmitted to the system even after operating conditions have been changed.

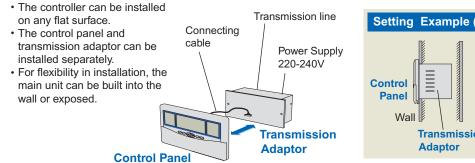


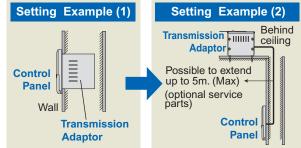
## Error display

Error codes can be displayed for all indoor units and outdoor units. The last 2 error codes can be displayed, for easy inspection, service and maintenance.



## Simple and Convenient Installation





## **Specifications**

Madal	UTB-YCA / UTB-GCA		
Model	Control Panel	Transmission Adaptor	
Power Supply	DC 12V	220-240V 50-60Hz Single phase	
Power Consumption (W)	4.8		
Fuse Capacity (A)		3	
Dimensions (H x W x D)(mm)	143 x 296 x 22	107 x 288 x 100	
Weight (g)	550	1,300	

### <PACKING LIST>

FACKING LIST			
Packing List	Control Panel / Transmission Adaptor / Connecting Cable		

## **Group Remote Controller**

UTB-YDB / UTB-GDB



Group control of indoor units with simple operation

- Up to 8 remote controller groups can be controlled by a single controller.
- Up to 64 Group Remote Controllers can be connected in a single VRF system.
- Network Convertor (UTR-YRDA) is required to connect Group Remote Controllers to a VRF system.



## **Functions**

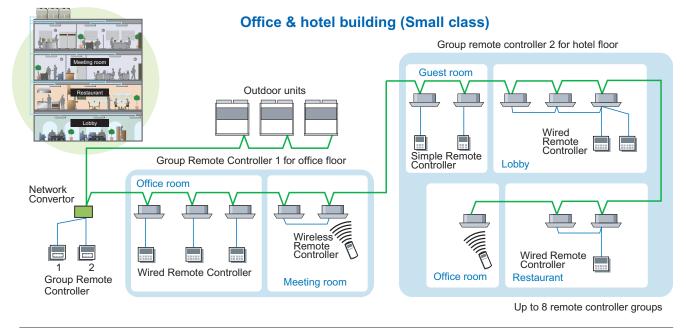
## High performance and compact size

ON / OFF, operating mode, set temperature and air flow can be controlled / monitored centrally or individually.



## Control up to 8 remote controller groups

- A single Group Remote Controller controls and monitors up to 8 remote controller groups.
- Up to 64 Group Remote Controllers can be connected in a single VRF system.
- Up to 4 Group Remote Controllers can be controlled by a single Network Convertor (UTR-YRDA).



## Built-in weekly timers

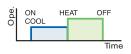
The weekly timer is provided as a standard function.

- 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

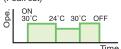
Air conditioning ON/OFF setting corresponding to air conditioning specification needs is possible.

### Cooling / Heating switching



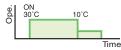
Switching between the cooling mode and heating mode can be set by time.

## Temperature switching (Peak cut)



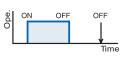
Since peak power cut is performed in a planned way, setting which changes the room temperature linked with time is possible.

## Temperature switching (Anti-freeze)



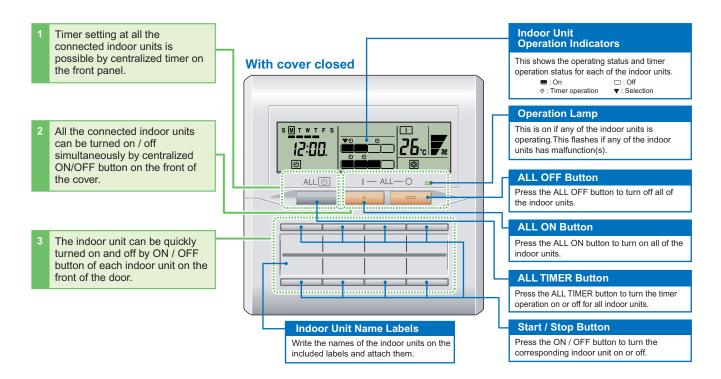
Low temperature heating operation can be set to prevent freezing in cold regions at night, etc.

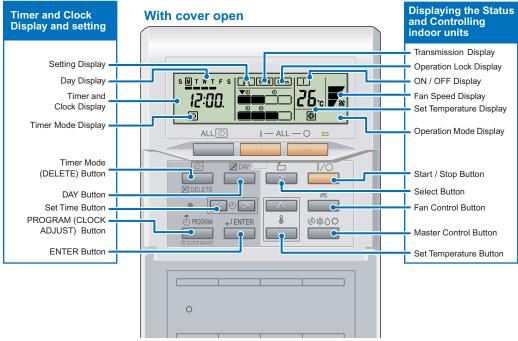
### Stop setting



eating Indoor unit start/stop
et to matched to the air
cold conditioning operation end
c. time is possible.

## Useful functions





Model		Group Remote Controller
		UTB-YDB / UTB-GDB
Power Supply		DC 12V
	Height	120
Dimensions (mm)	Width	120
	Depth	17
Weight (g)		200

## Wired Remote Controller

## **UTB-YUB / UTB-GUB / UTB-TUB**

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

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





## **Functions**

## Powerful features and compact size

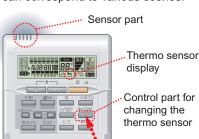
This Wired Remote Controller incorporates three primary functions into a single unit.

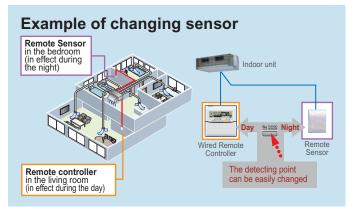


## Accurate and comfortable

Indoor temperature can be detected accurately by the inclusion of a thermo sensor in the body of the wired controller. Our system can correspond to various scenes.

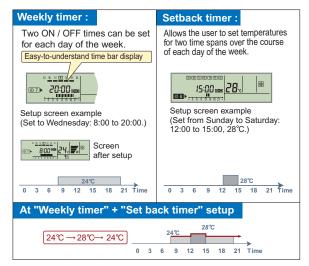
This new wired remote controller and the optional remote sensor allows flexibility in sensor location, suitable for all requirements.





Displayed temperature is set temperature.

### Built-in timers



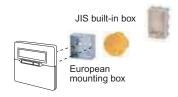
## Diagnosis check function

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

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



Model		Wired Remote Controller
		UTB-YUB / UTB-GUB / UTB-TUB
Power Supply		DC 12V
	Height	120
Dimensions (mm)	Width	120
	Depth	17
Weight (g)		160

## Simple Remote Controller

## UTB-YPB / UTB-GPB / UTB-TPB UTB-YRA / UTB-GRA / UTB-TRA

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 which have many visitors coming in and going out and do not require detailed functions.





UTB-YPB / UTB-GPB / UTB-TPB



UTB-YRA / UTB-GRA / UTB-TRA Without master control

## **Functions**

## User-friendly operation

- Provides access to basic operations, such as Start / Stop, Fan Control, master control Switching, and Temperature Setting.
- A large Start / Stop button is provided in the centre of the remote controller unit for easy operation.
- Can be incorporated with the standard remote controller.
- Following an error display, Diagnostics can be carried out on the controller.

## Background light

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



## Simple installation

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





JIS built-in box

## Functions

Model	2000	<u></u>
Operation	UTB-YPB UTB-GPB UTB-TPB	UTB-YRA UTB-GRA UTB-TRA
Start / Stop	•	•
Fan control		•
Master control		— *1
Temp. setting	•	•

\*1: This controller is limited a part of function.

It is recommend to use together with other type controller.

Model		Simple Remote Controller	
Wodel		UTB-YPB / UTB-GPB / UTB-TPB	UTB-YRA / UTB-GRA / UTB-TRA
Power Supply		DC 12V	
	Height	120	
Dimensions (mm)	Width	75	
Depth		14	
Weight (g)		90 (100 : UTB-TPB)	90 (100 : UTB-TRA)

## **Wireless Remote Controller**

**UTB-YVB / UTB-GVB** 

Simple and sophisticated operations with a choice of 4 daily timers

 A single controller controls up to 16 indoor units.







UTB-YVB / UTB-GVB



## **Functions**

## Built-in daily timer

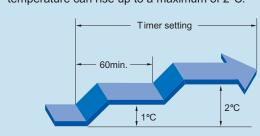
Select from 4 different timer programs : On / Off / Program / Sleep

Program timer: The program timer operates the ON and OFF timer once within a 24 hour period.

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

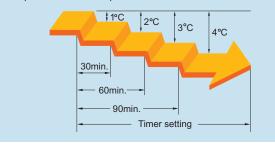
## Cooling operation/dry operation

When the sleep timer is set, the set temperature automatically rises 1°C every hour. The set temperature can rise up to a maximum of 2°C.



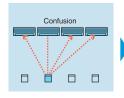
## **Heating operation**

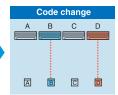
When the sleep timer is set, the set temperature automatically drops 1°C every 30 minutes. The set temperature can drop to a maximum of 4°C.



## Easy installation and operation

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



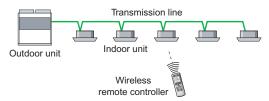


•Wide and precise transmitting range.



## System addressing

 During installation work, system addressing can be performed using the wireless remote controller, thus eliminating manual switch setting.



Model		Wireless Remote Controller
		UTB-YVB / UTB-GVB
Battery		1.5V (R03 / LR03 / AAA) x 2
	Height	158
Dimensions (mm)	Width	56
	Depth	20
Weight (g)		70

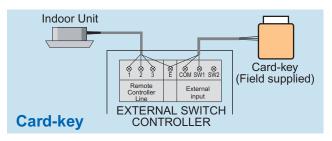
## **External Switch Controller**

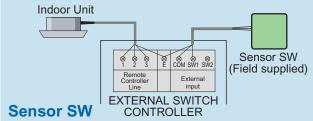
### **UTR-YESA**

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, Temperature, fan speed and operating mode 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.

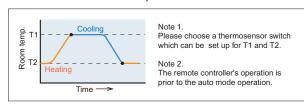
## ■ Electrical wiring

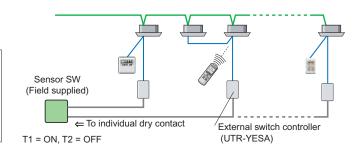




## Installation example

 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.





## IR Receiver Unit

Necessary to control duct type by wireless remote controller

## ■ Wiring connection



Model		External Switch Controller	IR Receiver Unit
		UTR-YESA	UTB-YWA
Power Supply		DC 12V	DC 12V
	Height	120	122
Dimensions (mm)	Width	75	60
	Depth	30	26.5
Weight (g)		90	150

**BACnet**® Gateway Software

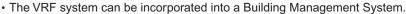
UTR-YLBA

Max. controllab.

4

VRF syste

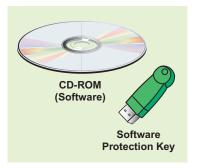




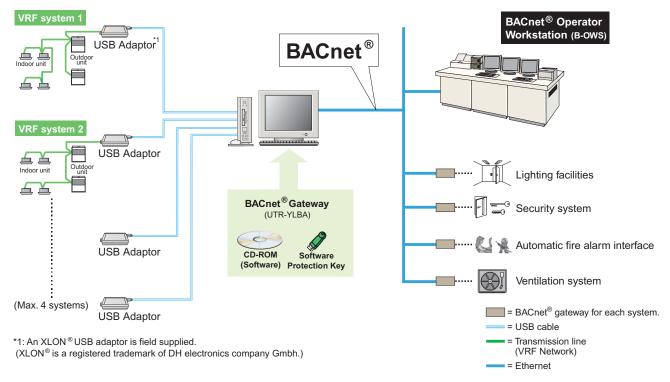
• Enables central control of up to 1,600 indoor units through BACnet®, a global standard for open networks.

ANSI / ASHRAE Standards® 135-2001 BACnet® Application Specific

- Controller (B-ASC) BACnet® / IP over Ethernet.
- Connects up to 4 VRF systems (1,600 indoor units / 400 outdoor units) per gateway.
- Ideal for applications in high rise buildings and hotels, etc.



## Installation example



## Requirements of PC for this software

		AT compatible machine that runs Microsoft® Windows®	
Personal Computer  Personal Computer  CPU Memory Display  Interface	Operating	Microsoft® Windows® 2000 Professional (English version / Service pack3 or later)	
	System	Microsoft® Windows® XP Professional (English version / Service pack1 or later)	
	CPU	Intel® Pentium® III 400MHz or higher	
	256 MB or more		
	1024 x 768 dots or more		
		LAN (10BASE-T / 100BASE-TX)	
	Interface	USB 1.1	
		*The power supply of 100mA / 5VDC is necessary for one USB adaptor.	
		Personal Computer (Field supplied)	
Required Hardware		USB Adaptor (DH electronics XLON® USB USB4-WM-FTT) (Field supplied)	
		*1 adaptor is necessary for 1 VRF system.	
Required Softw	rare	Adobe® Acrobat® reader 4.0 or later	

### <PACKING LIST>

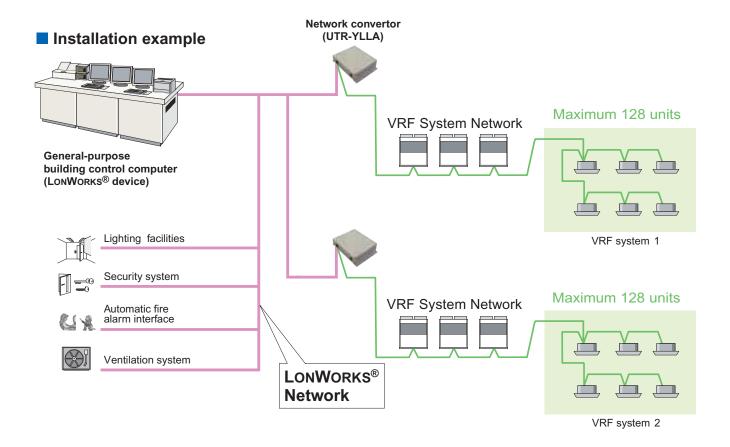
Packing List CD-ROM / Software Protection Key	
---	--

intribution.

## **Network Convertor for LONWORKS®**

**UTR-YLLA** 

- Max. connectable 128 indoor units
- For connection between VRF system and a LonWorks<sup>®</sup> open network for management of small to medium-sized BMS and VRF systems.
- The UTR-YLLA permits central monitoring and control of a VRF system from a BMS through a LonWorks® interface.
- Up to 128 Indoor units can be connected to a single Network Convertor.



## **Specifications**

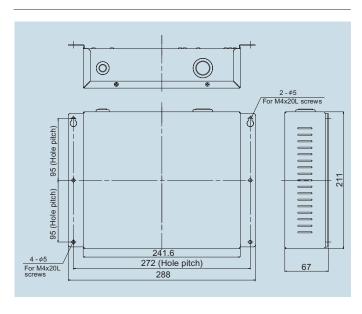
## ■ Main specification

Power Supply	50-60Hz 220-240V
Power Consumption (W)	4.5
Dimensions (H X W X D) (mm)	67 X 288 X 211
Weight (g)	1,500

## ■ Transmission specification

BMS SIDE	
Transmission speed	78kbps
Transceiver	FTT-10A
Transmission way form	Free topology
Termined resistor	None (It attaches at the terminal of a network.)

## **Dimensions**



## **Network Convertor**

## **UTR-YRDA**

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



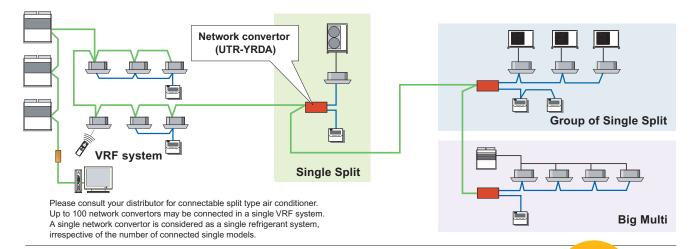
## Installation example

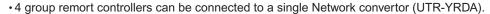
- Split type systems can be controlled from a central remote controller or PC controller through connection to the VRF's network convertor.
- Standard remote controller and central remote controller provide On / Off control, master control, temperature and fan control, etc.
- A single network convertor can be used to connect and control up to 16 single units.

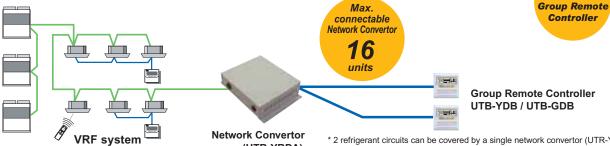
Used for connecting single split system

**Used** for

connecting







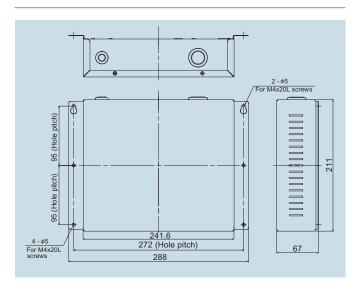
## VRF system (UTR-YRDA) \* 2 refrigerant circuits can be covered by a single network convertor (UTR-YRDA) . Up to a total of 16 network convertors (UTR-YRDA) and central remote controller adapters can be connected in a single VRF system.

## **Specifications**

## Main specification

Power Supply	50-60Hz 220-240V
Power Consumption (W)	8.5
Dimensions (H X W X D) (mm)	67 X 288 X 211
Weight (g)	1,500

## **Dimensions**

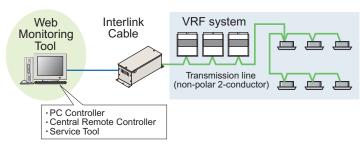


## **Transmission Adaptor**

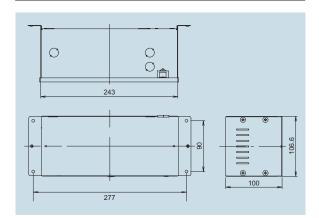
### **UTR-YTMA**

- For air conditioning of the medium and large size buildings, the control software can control and monitor air conditioners together with the ones in the other buildings.
- This device enables control by other equipment via an Interlink cable or connection cable.
- Up to 400 Indoor units / 100 Outdoor units can be connected to one Transmission Adaptor.

## Installation example



## **Dimensions**



## **Specifications**

Power Supply	50-60Hz 220-240V
Power Consumption (W)	2.9
Fuse Capacity	3A
Dimensions (H X W X D) (mm)	100 X 288 X 110
Weight (g)	1,300

## Signal Amplifier

- This unit allows the connection of the following number of units:
  - (1) Transmission Line: Max. 2,000m
  - (2) Connectable Units: Max. Indoor Unit: 400 units

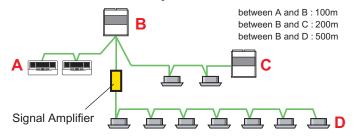
Max. Outdoor Unit: 100 units

Max. Central Remote Controller: 16 units

- Up to 8 signal amplifiers can be installed in a single VRF 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.



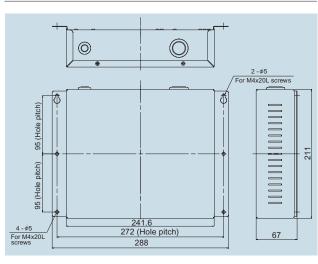
## Installation example



## **Specifications**

Power Supply	50-60Hz 220-240V	
Power Consumption (W)	4.5	
Dimensions (H X W X D) (mm)	67 X 288 X 211	
Weight (g)	1,500	

## **Dimensions**



## Service Tool Software UTR-YSTC



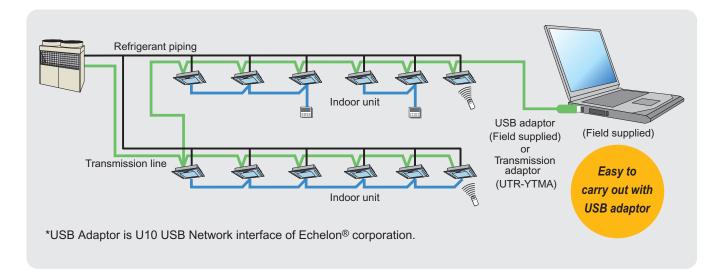


Extensive monitoring and analysis functions for installation and maintenance

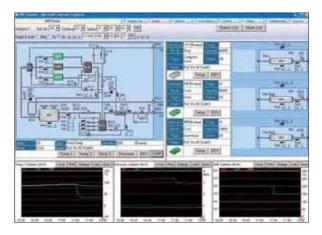
- Operation status can be checked and analyzed to detect even the smallest abnormalities.
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF system) can be controlled and monitored for large scale buildings or hotels.
- This software can be connected to any point of transmission line with USB adaptor (field supplied)

## palities. te. arge scale (field

## **■** Wiring connection



## Functions



## **Equipment Detail (Diagram)**

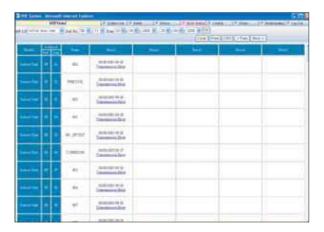
Displays the detail information for sensor values, electrical components etc. for the specified units in schematic. The information here can be used along with the detail information in list form, to check the operation status of units and make detail analysis on the cause, in case an error occurs.



## **Equipment Detail (List)**

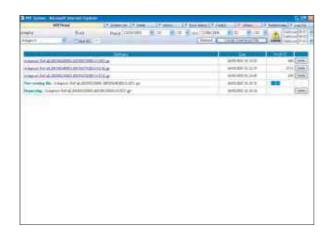
Displays the detail information for sensor values, electrical components etc. of units in a specified refrigerant system in list form.

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.



## **Error History**

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



### 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.



## **System List**

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

## **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.

## Requirements of PC for this software

		AT compatible machine that runs Microsoft ® Windows ®	
Personal Computer	Operating System	Microsoft ® Windows® 2000 Professional (English version / Service pack3 or later) Microsoft ® Windows® XP Professional (English version / Service pack1 or later )	
Compane.	CPU	Intel® Pentium® / Celeron®, AMD Athlon™/ Duron™1GHz or higher	
	HDD	2.1 GB or more	
	Memory	256 MB or more	
	Interface	Serial port and USB port	
Software		Internet Explorer 6.0 or later / Adobe® Acrobat® Reader 4.0 or later	
Hardware		Interlink cable D-sub 9 Pin [Field supplied] USB Adaptor is U10 USB Network Transmission Adaptor (UTR-YTMA) or interface of Echelon ® corporation.	

### <PACKING LIST>

Packing List	CD-ROM / Software Protection Key
--------------	----------------------------------

The transmission adaptor or the USB adaptor of optional parts is necessary to connect this software with the VRF system.

## Web Monitoring Tool Software UTR-YMSA

tware VRF sys



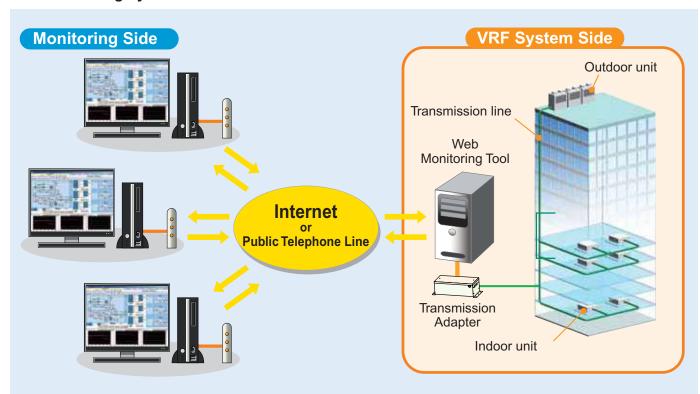


## Product features

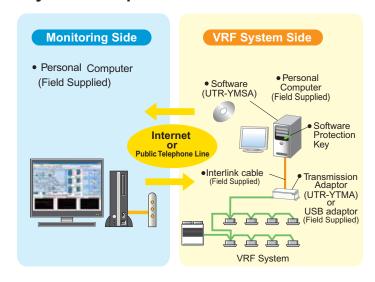
- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet\*.
- Requires either a dedicated internet connection\* or public telephone line.
- Determination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

  \*Unchanging global IP address is required.

### **Web Monitoring System**

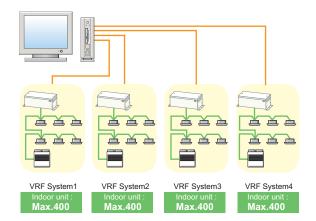


## System components



## ■ Support 4 VRF system

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



#### Comparison table

No.	Item	Service Tool	Web Monit	
INO.	item	UTR-YSTC	Monitoring Side	VRF System Side
1	Interchangeability of equipment	•	•	•
2	Indication of equipment list	•	•	•
3	Operation control	•	_	•
4	Indication of unit circuit diagram	•	•	•
5	Commissioning tool	•	_	•
6	Monitoring of equipment information	•	•	•
7	Monitoring of operating condition	•	•	•
8	Monitoring of sensor data	•	•	•
9	Indication of trend graph	•	•	•
10	Storage and CSV output of operating history (sensor data)	•	•	•
11	Printing of trend graph	•	•	•
12	Monitoring and screen display of abnormalities	•	•	•
13	E-mail automatic transmission of abnormalities	_	_	<b>●</b> *1
14	Setting for user level	_	_	•

<sup>\*1</sup> It is available only during a connection to the Internet.

#### Requirements of PC for this software

	,	AT compatible machine that runs Microsoft ® Windows ®
Personal Computer	Operating System	Microsoft ® Windows ® 2000 Professional (English version / Service pack3 or later) Microsoft ® Windows ® XP Professional (English version / Service pack1 or later)
	CPU	Intel® Pentium® / Celeron®, AMD Athlon™/ Duron™ 1GHz or higher
	HDD	2.1 GB or more
	Memory	512 MB or more
	Interface	Serial port (Max. 4) *1and USB port
Software		Internet Explorer 6.0 or later / Adobe® Acrobat® Reader 4.0 or later *2
Hardware		Interlink cable D-sub 9 Pin [Field supplied] USB Adaptor is U10 USB Network Transmission Adaptor (UTR-YTMA) or interface of Echelon® corporation.

#### <PACKING LIST>

Packing List	CD-ROM / Software Protection Key

<sup>\*1 1</sup> port required for each VRF system connected.

<sup>\*2</sup> If Internet Explorer is installed on the remote side PC, remote supervision of VRF system status is available.

The transmission adaptor or the USB adaptor of optional parts is necessary to connect this software with the VRF system.

#### **Outdoor Units**

#### Outdoor Unit Line up

• By combining 6 types (Master Unit and Slave Unit 8/10/14 HP) of 1 to 3 Outdoor Units, ranging from 8 HP (22.4 kW) to 42 HP (120 kW).

	Model	name			
Capacity	Master units	Slave units			
22.4kW (8HP)	AJ*A72LATF	AJ*A72UATF			
28.0kW (10HP)	AJ*A90LATF	AJ*A90UATF			
40.0kW (14HP)	AJ*126LATF	AJ*126UATF			

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

#### Capacity range

НР	Capacity (kW)	Maximum connectable indoor unit	Maximum Indoor unit connectable capaci	
8	22.4	15	11.2-33.6	*1 *2
10	28.0	16	14.0-42.0	50-150%
14	40.0	10	20.0-60.0	
16	44.8	30	22.4-67.2	
18	50.4		25.2-75.6	
20	56.0		28.0-84.0	
22	62.4	32	31.2-93.6	
24	68.0	32	34.0-102	
26	72.8		36.4-109	*1
28	80.0		40.0-120	50-150%
30	84.0		42.0-126	
32	90.4		45.2-135	
34	96.0	48	48.0-144	
36	102	70	51.0-153	
38	108		54.0-162	
42	120		60.0-180	

#### ■ Combination of outdoor units

Unit	НР	Capacity (kW)	Master	Slave1	Slave2
4300	8	22.4	AJ*A72LATF		
	10	28.0	AJ*A90LATF		
	14	40.0	AJ*126LATF		
	16	44.8	AJ*A72LATF	AJ*A72UATF	—
	18	50.4	AJ*A90LATF	AJ*A72UATF	
THE PERSON	20	56.0	AJ*A90LATF	AJ*A90UATF	
	22	62.4	AJ*126LATF	AJ*A72UATF	
	24	68.0	AJ*126LATF	AJ*A90UATF	
	28	80.0	AJ*126LATF	AJ*126UATF	
	26	72.8	AJ*A90LATF	AJ*A72UATF	AJ*A72UATF
	30	84.0	AJ*A90LATF	AJ*A90UATF	AJ*A90UATF
	32	90.4	AJ*126LATF	AJ*A90UATF	AJ*A72UATF
NAME AND ADDRESS OF	34	96.0	AJ*126LATF	AJ*A90UATF	AJ*A90UATF
	36	102	AJ*126LATF	AJ*126UATF	AJ*A72UATF
	38	108	AJ*126LATF	AJ*126UATF	AJ*A90UATF
	42	120	AJ*126LATF	AJ*126UATF	AJ*126UATF

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

#### **Specifications**

Nominal system capacity	HP		8	10	14	16	18	20	22		
Model name			AJ*A72LATF	AJ*A90LATF	AJ*126LATF	AJ*A72LATF AJ*A72UATF	AJ*A90LATF AJ*A72UATF	AJ*A90LATF AJ*A90UATF	AJ*126LATF AJ*A72UATF		
Power source					3F	Phase 380-415V 50H	z				
Capacity	Cooling	Is\A/	22.4	28.0	40.0	44.8	50.4	56.0	62.4		
Сарасну	Heating	KVV	25.0	31.5	45.0	50.0	56.5	63.0	70.0		
Input power	Cooling		7.00	8.75	13.3	14.0	15.8	17.5	20.3		
input power	Heating	kW	6.76	8.51	13.2	13.5	15.3	17.0	20.0		
Heat exchanger fin			Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin		
Airflow rate	m³/h		m³/h		10700	10700	10800	10700 x 2	10700 x 2	10700 x 2	10800+10700
	Cooling	dB	58	58	60	61	61	61	62		
Sound pressure level	Heating	(A)	60	60	62	63	63	63	64		
Compressor motor output	kW		3.0 + 4.6	3.0 + 4.6	3.0 + 4.6 + 4.6	3.0 + 4.6 / 3.7 + 3.7	3.0 + 4.6 / 3.7 + 3.7	3.0 + 4.6 / 4.6 + 4.6	3.0 + 4.6 + 4.6 / 3.7 + 3.7		
Dimensions H x W x D	mm		1500 x 1300 x 650	1500 x 1300 x 650	1500 x 1300 x 650	1500 x 1300 x 650 /1500 x 1300 x 650		1500 x 1300 x 650 /1500 x 1300 x 650			
Weight	kg		269	269	374	269 + 272	269 + 272	269 + 272	374 + 272		
Refrigerant charge	kg		14.0	14.0	15.5	14.0 + 14.0	14.0 + 14.0	14.0 + 14.0	15.5 + 14.0		
Connection pipe	Liquid	mm	ø12.70	ø12.70	ø12.70	ø12.70	ø15.88	ø15.88	ø15.88		
diameter	Gas	711171	ø22.22	ø22.22	ø28.58	ø28.58	ø28.58	ø28.58	ø34.92		
Operation	Cooling	°C.	-15 to 43	-15 to 43	-15 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43		
temperature range	Heating	Ŭ	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21		

Note: Specifications are based on the following conditions.

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

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

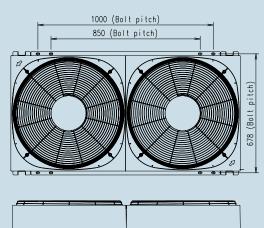
<sup>\*1</sup> Based on rated cooling capacity.
\*2 Indoor unit connectable capacity is 75 to 150% for single outdoor unit system (8 -14HP) in case of including indoor unit model code 18 and under in the system.

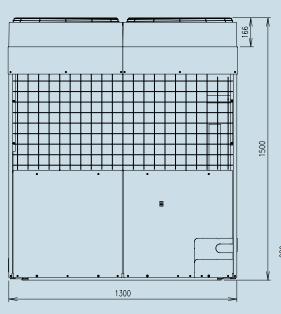
\*3 Minimum connectable indoor unit number is 2.

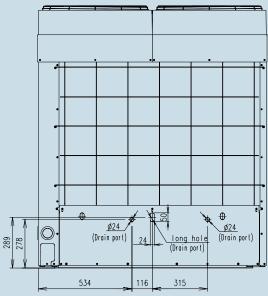
However ARXC90 can be used single connection.

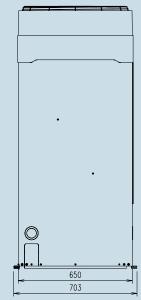
#### Dimensions

• Master unit and slave unit are same dimensions.









24	26	28	30	32	34	36	38	42	
AJ*126LATF AJ*A90UATF	Δ.Ι*Δ72ΙΙΔΤΕ		AJ*A90LATF AJ*A90UATF AJ*A90UATF	AJ*126LATF AJ*A90UATF AJ*A72UATF	AJ*126LATF AJ*A90UATF AJ*A90UATF	AJ*126LATF AJ*126UATF AJ*A72UATF	AJ*126LATF AJ*126UATF AJ*A90UATF	AJ*126LATF AJ*126UATF AJ*126UATF	
			3F	Phase 380-415V 50H	lz				
68.0	72.8	80.0	84.0	90.4	96.0	102	108	120	
76.5	81.5	90.0	94.5	102	108	115	122	135	
22.1	22.8	26.7	26.3	29.1	30.8	33.7	35.4	40.0	
21.7	22.0	26.5	25.5	28.5	30.3	33.2	35.0	39.7	
Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	
10800+10700	10700 x 3	10800 x 2	10700 x 3	10800+10700 x 2	10800+10700 x 2	10800 x 2+10700	10800 x 2+10700	10800 x 3	
62	62	62	62	63	63	63	64	64	
64	64	64	64	65	65	65	66	66	
3.0 + 4.6 +4.6 / 4.6 + 4.6	3.0 + 4.6 / 3.7 + 3.7 / 3.7 + 3.7	3.0 + 4.6 + 4.6 / 4.6 + 4.6 + 4.6	3.0 + 4.6 / 4.6 + 4.6 / 4.6 + 4.6	3.0 + 4.6 +4.6 / 4.6 + 4.6 / 3.7 + 3.7	3.0 + 4.6 + 4.6 / 4.6 + 4.6 / 4.6 + 4.6	3.0 + 4.6 + 4.6 / 4.6 + 4.6 + 4.6 / 3.7 + 3.7	3.0 + 4.6 + 4.6 / 4.6 + 4.6 + 4.6 / 4.6 + 4.6	3.0 + 4.6 + 4.6 / 4.6 + 4.6 + 4.6 / 4.6 + 4.6 + 4.6	
1500 x 1300 x 650 /1500 x 1300 x 650	1500 x 1300 x 650 /1500 x 1300 x 650 /1500 x 1300 x 650	1500 x 1300 x 650 /1500 x 1300 x 650	/1500 x 1300 x 650	1500 x 1300 x 650 /1500 x 1300 x 650 /1500 x 1300 x 650	/1500 x 1300 x 650		/1500 x 1300 x 650		
374 + 272	269 + 272 + 272	374 + 377	269 + 272 + 272	374 + 272 + 272	374 + 272 + 272	374 + 377 + 272	374 + 377 + 272	374 + 377 + 377	
15.5 + 14.0	14.0 + 14.0 + 14.0	15.5 + 15.5	14.0 + 14.0 + 14.0	15.5 + 14.0 + 14.0	15.5 + 14.0 + 14.0	15.5 + 15.5 + 14.0	15.5 + 15.5 + 14.0	15.5 + 15.5 + 15.5	
ø15.88	ø15.88	ø15.88	ø19.05	ø19.05	ø19.05	ø19.05	ø19.05	ø19.05	
ø34.92	ø34.92	ø34.92	ø34.92	ø34.92	ø34.92	ø41.27	ø41.27	ø41.27	
-5 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43	-5 to 43	
-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	

#### **Indoor Units**

Capacity range(kW)	2.2	2.8	3.6	4.05	5.3	5.7
▼ Type Model code ▶	7	9	12	14	18	20
Compact Cassette	AUXB07LATF	AUXB09LATF	AUXB12LATF	AUXB14LATF	AUXB18LATF	
P42 \	, , , , ,	7.07.2002	7.07.2.12	7.07.2	7.07.2.02	
Cassette						AU*A20LATF
Silent model						
Compact Duct	ARXB07LALF	ARXB09LALF	ARXB12LALF	ARXB14LALF	ARXB18LALF	
Low Static Pressure Duct						
Duct						
High Static Pressure Duct						
Floor / Ceiling			AB*A12LATF	AB*A14LATF	AB*A18LATF	
Ceiling P54						
Comfort model Compact Wall Mounted	AS*E07LACF	AS*E09LACF	AS*E12LACF	AS*E14LACF		
Wall Mounted					AS*A18LATF	
Ceiling Wall	AW*A07LATF	AW*A09LATF	AW*A12LATF	AW*A14LATF	AW*A18LATF	

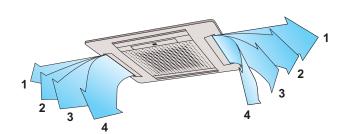
Broad range of indoor units of many designs and capacity ranges available which can be selected to suit any air conditioning needs

6.8 24	7.05 25	8.8	10.5 36	12.7 45	14.1 54	17.0 60	25.4 90
24	25	30	30	45	54	60	90
	[Slim Type]	[Slim Type]	ALIXADOLATE	ALIXA AFI ATE	Altasalase		
	AU*A25LATF	AU*A30LATF	AU*A36LATF	AU*A45LATF	AU*A54LATF		
	ARXB25LATF	ARXB30LATF	ARXB36LATF	ARXB45LATF			
	ARXA25LATF	ARXA30LATF	ARXA36LATF	ARXA45LATF			
			ARXC36LATF	ARXC45LATF		ARXC60LATF	ARXC90LATE
AB*A24LATF							
		AB*A30LATF	AB*A36LATF	AB*A45LATF	AB*A54LATF		
AS*A24LATF		AS*A30LATF					
AW*A24LATF		AW*A30LATF					



#### Comfortable air flow 4-step swing

Auto air flow direction and auto swing



#### 2-4 way air flow system

Select 2-way, 3-way or 4-way air flow to suit your needs.



#### **Specifications**

Model name			AUXB07LATF	AUXB09LATF	AUXB12LATF	AUXB14LATF	AUXB18LATF			
Power source				220 to 240V 50Hz						
Capacity	Cooling	kW	2.20	2.80	3.60	4.00	5.00			
Сараску	Heating	KVV	2.50	3.20	4.10	4.50	5.45			
Input power		W	28	28	52	52	50			
	High		530	530	580	580	640			
Airflow rate	Med	m³/h	480	480	520	520	540			
	Low		410	410	460	460	470			
	High		38	38	41	41	44			
Sound pressure level	Med	dB(A)	35	35	37	37	38			
	Low		31	31	34	34	35			
Dimensions (H x W x D)		mm	230 x 570 x 570	230 x 570 x 570	230 x 570 x 570	230 x 570 x 570	230 x 570 x 570			
Weight		kg	18	18	18	18	18			
Refrigerant	Liquid (Flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52			
pipe diameter	Gas (Flare)	111111	ø12.7	ø12.7	ø12.7	ø12.7	ø15.88			
Grille					UTG-UD*D-W (Option)					

\*UTG-UDYD-W(FUJITSU); UTG-UDGD-W(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.

#### ■ Compact size

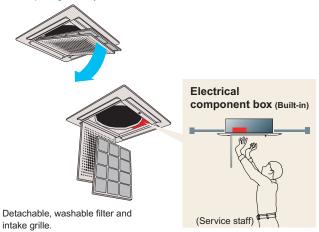
Compact grille that fits standard ceiling panel (600mm x 600mm)

# Punch Hole Grille 570 245 20

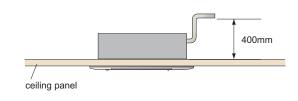
#### **■** Easy maintenance

By placing the electrical component box inside the unit easy maintenance is assured.

Wide opening for easy maintenance.



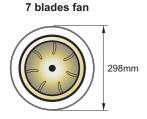
#### ■ Condensate pump lift to 400mm



#### Low noise

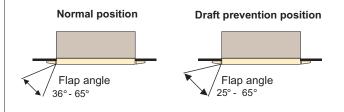
(Unit:mm)

Large airflow and reduced noise output achieved by the use of a large diameter variable pitch turbo fan.



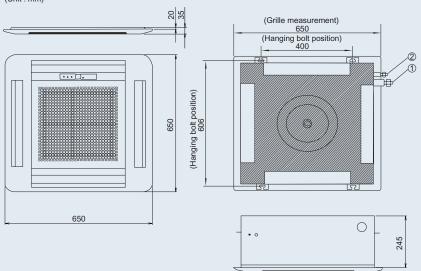
#### Draft prevention

Movement of the flap angle can be changed via a simple switch during installation, thereby preventing uncomfortable drafts.

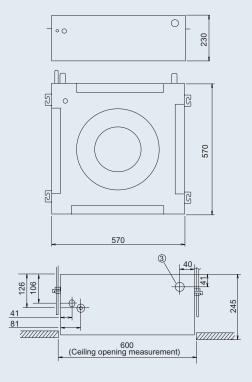


#### **Dimensions**

Models: AUXB07 / AUXB09 / AUXB12 / AUXB14 / AUXB18 (Unit : mm)



- ① Refrigerant piping flare connection (Gas)
- 2 Refrigerant piping flare connection (Liquid)
- 3 Drain piping connection (Drain pipe: I.D.Ø32 O.D.Ø37)



#### Cassette Slim Type

Unit fascia can be adjusted up to 35mm to enable installation in a narrow ceiling

#### Models

AU\*A20LATF AU\*A25LATF AU\*A30LATF

#### **Cassette**

Detachable grille makes filter maintenance easy

#### Models

AU\*A36LATF AU\*A45LATF AU\*A54LATF

# 4 step swing Auto air flow direction and auto swing 4 3 2 1 Swing

Steps

2-4 way air flow system

Select 2-way, 3-way or 4-way air flow to suit your needs.

2-way 3-way 4-way

#### Wide air flow

Larger air flap distributes the outlet air flow a longer distance in the horizontal direction.

#### **Specifications**

4 steps swing

Model name			AU*A20LATF	AU*A25LATF	AU*A30LATF	AU*A36LATF	AU*A45LATF	AU*A54LATF		
Power source			220 to 240V 50Hz							
C:h.	Cooling	Cooling	5.70	7.05	8.80	10.5	12.7	14.1		
Capacity	Heating	KVV	5.80	7.85	9.10	12.7	13.7	15.8		
Input power		W	104	124	140	175	190	219		
	High		1,000	1,100	1,250	1,500	1,550	1,700		
Airflow rate	Med	m³/h	840	940	1,050	1,300	1,350	1,420		
	Low		700	780	840	1,100	1,100	1,200		
	High		41	43	46	47	48.5	51.5		
Sound pressure level	Med	dB(A)	37	40	43	42.5	46	47.5		
	Low		33	35	37	38	41	43.5		
D'	(Main body)	mm	246 x 830 x 830	246 x 830 x 830	246 x 830 x 830	296 x 830 x 830	296 x 830 x 830	296 x 830 x 830		
Dimensions (H x W x D)	(With Panel)		265 x 940 x 940	265 x 940 x 940	265 x 940 x 940	315 x 940 x 940	315 x 940 x 940	315 x 940 x 940		
Weight kg		34	34	34	40	40	40			
Refrigerant	Liquid (Flare)		ø9.52	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52		
pipe diameter	Gas (Flare)	mm	ø15.88	ø15.88	ø15.88	ø19.05	ø19.05	ø19.05		

4 steps swing

\* AU\*: AUY(FUJITSU), AUG(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.

#### ■Flexible installation

Compact body ensures space saving installation.

A slender fit option is available where ceiling void space is limited.

# Standard setting Slender setting

	Standard setting	Slender setting
	На	Hb
AU20 / AU25 / AU30	235	200
AU36 / AU45 / AU54	285	250

(Unit:mm)

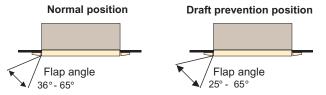
#### **■** Easy maintenance

The control box is easily accessible for maintenance work. Wide opening for easy access.

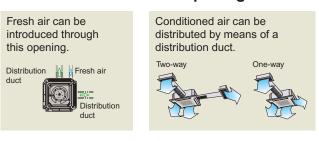


#### Draft prevention

Movement of the flap angle can be changed via a simple switch during installation, thereby preventing uncomfortable drafts.



#### Duct connection hole opening

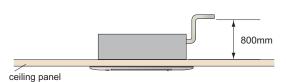


#### Improved noise level and air distribution

Noise output has been dramatically lowered.

- Improved turbo fan shape (aerodynamic design)
- · Expanded air distribution
- · Low internal resistance Molded fan motor

#### ■ Condensate pump lift to 800mm

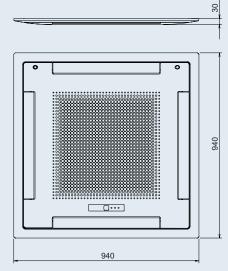


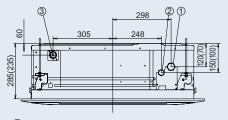
#### **Dimensions**

Models: AU\*A20 / AU\*A25 / AU\*A30 (Slim type) AU\*A36 / AU\*A45 / AU\*A54

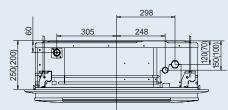
(Unit:mm)

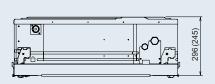
( ): AU20 / AU25 / AU30

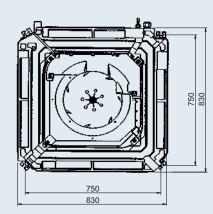




- 1 Refrigerant piping flare connection (Gas)
- 2 Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection (Drain pipe: I.D.Ø32 O.D.Ø37)







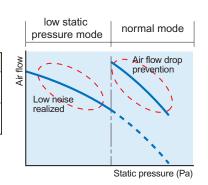


**ARXB14LALF ARXB18LALF** 

#### Low noise level

A low noise level has been achieved for each capacity

Model		7	9	12	14	18
Static pressure (Normal/Max.)	Pa			0 / 50		
Noise level (Low speed)	dB(A)	24	27	25	26	30



#### **Specifications**

Model name			ARXB07LALF	ARXB09LALF	ARXB12LALF	ARXB14LALF	ARXB18LALF		
Power source			220 to 240V 50Hz						
C:h.	Cooling	kW	2.20	2.80	3.60	4.00	5.30		
Capacity	Heating	KVV	2.50	3.20	4.10	4.80	5.60		
Input power		W	31.2	32.6	55.0	63.0	103.0		
	High		330	370	560	610	950		
Airflow rate	Med	m³/h	300	340	500	550	790		
	Low		270	310	420	470	620		
Static pressure range		Pa	0 to 50	0 to 50	0 to 50	0 to 50	0 to 50		
	High		29	31	30	31	40		
Sound pressure level	Med	dB(A)	27	29	28	29	35		
	Low		24	27	25	26	30		
Dimensions (H x W x D)		mm	217 x 663 x 595	217 x 663 x 595	217 x 953 x 595	217 x 953 x 595	217 x 953 x 595		
Weight		kg	18	18	25	25	25		
Connection	Liquid (Flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52		
pipe diameter	Gas (Flare)	111111	ø12.7	ø12.7	ø12.7	ø12.7	ø15.88		

Note: Specifications are based on the following conditions.

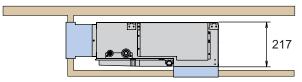
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating : Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

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

Voltage: 230 [V]; Standard static pressure: 0 Pa.

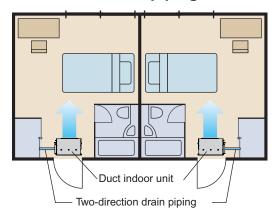
#### **■**Compact design

Ultra-slim duct air conditioner for easy installation



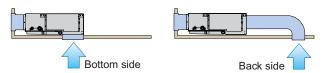
Slim size (217mm) allows installation even where the space behind the ceiling is narrow.

#### ■ Two-direction drain piping

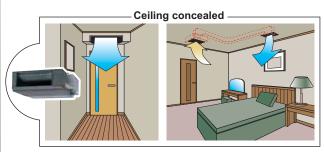


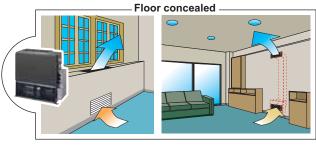
#### Air-intake

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

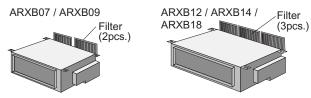


#### ■ Flexible installation





#### Filter (Accessory)



#### Optional parts

Remote sensor unit UTD-RS100 IR receiver unit UTB-YWA

#### **Dimensions**

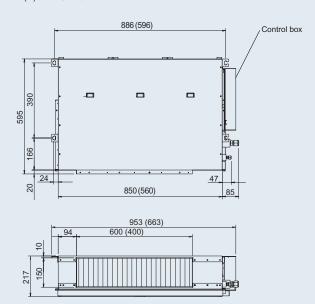
Models: ARXB07 / ARXB09 / ARXB12 / ARXB14 / ARXB18

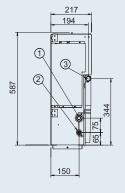
\*Service accessibility must be allowed for when installing the product.

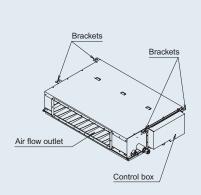
Please consult the installation manual for the necessary service access size.

(Unit : mm)

( ): AR7 / AR9







886 (596)

- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection (Drain pipe: I.D.Ø21.5 O.D.Ø26.0)

Low Static Pressure

Duct Silent model

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

#### Models

ARXB25LATF ARXB30LATF ARXB36LATF ARXB45LATF



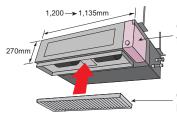
Slim Compact design allows for easy installation in narrow ceiling spaces up to 270mm

#### Models

ARXA25LATF ARXA30LATF ARXA36LATF ARXA45LATF



In the case of bottom suction type, not only does the design allow for installation in narrow ceiling space up to 270mm, further space requirements have been guaranteed by placing the control box 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		ARXB25LATF	ARXB30LATF	ARXB36LATF	ARXB45LATF	ARXA25LATF	ARXA30LATF	ARXA36LATF	ARXA45LATF			
Power source	Power source				220 to 240V 50Hz							
Consoity	Cooling	kW	7.00	8.80	10.5	12.7	7.00	8.80	10.5	12.7		
Capacity	Heating	K V V	7.70	9.50	12.7	14.3	7.70	9.50	12.7	14.3		
Input power		W	155	171	216	246	161	172	220	312		
	High		1,090	1,200	1,440	1,580	1,100	1,400	1,750	1,800		
Airflow rate	Med	m³/h	970	1,090	1,270	1,450	1,000	1,300	1,650	1,600		
	Low		870	970	1,160	1,320	900	1,200	1,550	1,500		
Static pressure range		Pa	0 to 80	0 to 80	0 to 80	0 to 80	30 to 150	30 to 150	30 to 150	30 to 150		
	High		29	31	35	37	38	40	43	44		
Sound pressure level	Med	dB(A)	26	28	32	35	36	38	41	42		
	Low		24	26	30	33	34	36	39	40		
Dimensions (H x W x D)		mm	270x1,135x700	270x1,135x700	270 x1,135 x 700	270x1,135x700	270 x 1,135 x 700					
Weight		kg	43	43	43	45	43	43	43	45		
Connection	Liquid (Flare)	mm	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52	ø9.52		
pipe diameter	Gas (Flare)	11/1111	ø15.88	ø15.88	ø19.05	ø19.05	ø15.88	ø15.88	ø19.05	ø19.05		

Note: Specifications are based on the following conditions.

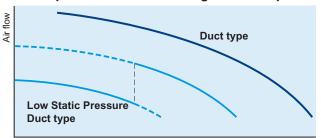
Cooling : Indoor temperature of 27  $^{\circ}\text{CDB}$  / 19  $^{\circ}\text{CWB},$  and outdoor temperature of 35  $^{\circ}\text{CDB}$  / 24  $^{\circ}\text{CWB}.$ 

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.

Voltage: 230 [V]; Standard static pressure: 0 Pa(ARXB25LATF,ARXB30LATF,ARXB36LATF,ARXB45LATF)
Voltage: 230 [V]; Standard static pressure: 100 Pa(ARXA25LATF,ARXA30LATF,ARXA36LATF,ARXA45LATF)

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



#### Static pressure

#### **Low Static Pressure Duct type**

0

#### Optimum model for hotels or bedrooms

An ultra low-noise model that achieves a quiet interior. Perfect for hotels or bedrooms with limited air duct installation space. Two different levels can be selected according to the static



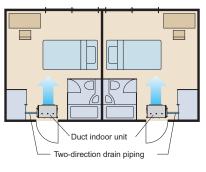
#### **Duct type**

#### Powerful model 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 space such as an office.

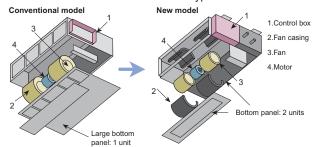


#### Two-direction drain piping



#### Easy maintenance

See below for the case of rear suction type

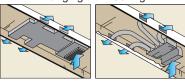


Structural improvement is attained by making the bottom panel two pieces, front and rear, and the internal fan casing is also made dismountable in two pieces, namely, upper and lower ones. The motor and fan maintenance and dismounting can be made easily by removing the rear panel and lower part of the casing with the main chassis installed.

#### Installation styles

## Embedded in Ceiling

Hanging from Ceiling



#### Optional parts

Remote sensor unit UTD-RS100 Long life filter UTD-LF25NA Flange (Square) UTD-SF045T UTD-RF204 Flange (Round) IR receiver unit **UTB-YWA** 

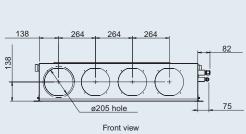
#### **Dimensions**

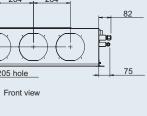
Models: ARXB25 / ARXB30 / ARXB36 / ARXB45 ARXA25 / ARXA30 / ARXA36 / ARXA45

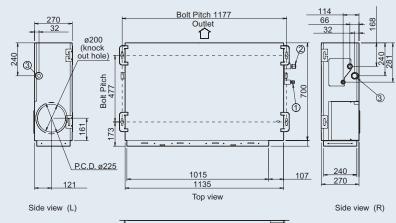
\*Service accessibility must be allowed for when installing the product.

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

(Unit:mm)







- ① Refrigerant piping flare connection (Liquid) :
- ② Refrigerant piping flare connection (Gas):
- ③ Drain piping connection (Drain pipe): I.D.36 O.D.38
- ③ Drain piping connection (Drain cap): I.D.36 O.D.38



#### **Specifications**

Model name		ARXC36LATF	ARXC45LATF	ARXC60LATF	ARXC90LATF	
Power source				3Phase 380 to 415V 50Hz		
Capacity	Cooling	kW	10.5	12.7	17.0	25.4
Сарасну	Heating	NVV	12.7	14.3	18.2	29.5
Input power		W	405	427	427	970
	High		2,500	3,500	3,500	3,950
Airflow rate	Med	m <sup>3</sup> /h	1,950	3,000	3,000	-
	Low	] [	1,450	2,460	2,460	-
Static pressure range		Pa	100 to 200	100 to 250	100 to 250	100 to 300
	High		45	49	49	50
Sound pressure level	Med	dB(A)	38	45	45	-
	Low		32	42	42	-
Dimensions (H x W x D)		mm	400 x 1,050 x 500	400 x 1,050 x 500	400 x 1,050 x 500	450 x 1,550 x 700
Weight		kg	45	45	50	82
Connection	Liquid	- mm	ø9.52(Flare)	ø9.52 (Flare)	ø9.52(Flare)	ø12.7 (Brazing)
pipe diameter	Gas	] '''''	ø19.05 (Flare)	ø19.05 (Flare)	ø19.05 (Flare)	ø22.22(Brazing)

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  $^{\circ}$  CDB / (15  $^{\circ}$  CWB), and outdoor temperature of 7  $^{\circ}$  CDB / 6  $^{\circ}$  CWB.

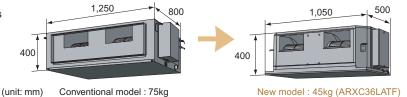
Pipe length: 7.5 m; Height difference between outdoor unit and indoor unit: 0 m.

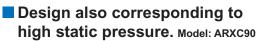
Voltage: 230 [V]; Standard static pressure: 100 Pa (ARXC36LATF, ARXC45LATF, ARXC60LATF).

Voltage: 400 [V]; Standard static pressure: 200 Pa (ARXC90LATF).

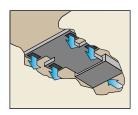
#### ■ Easy installation (Compact size & Lightweight)

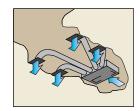
By downsizing basic chassis and reducing materials weight, compact size and lightweight are realized.





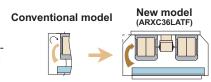






#### Low noise

Turbulent air flow is reduced by cutting off the corners of conventional indoor unit front panel and fan case.



371

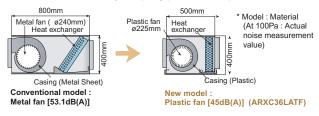
Volume

**47.5**%

down

Weight 40% down

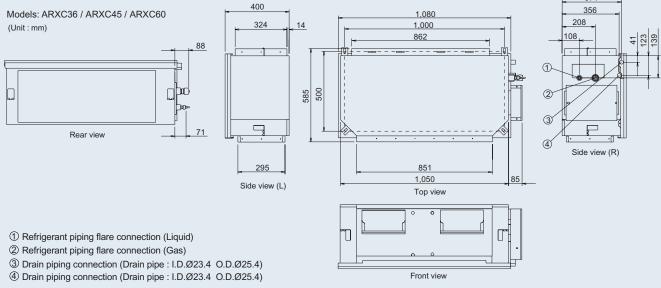
Low noise is realized by adopting plastic case, plastic fan



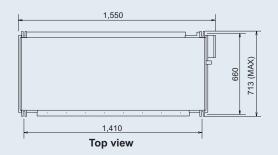
#### Optional parts

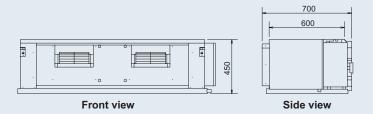
Long-life filter UTD-LF60KA (For ARXC36 / 45 / 60) IR receiver unit UTB-YWA





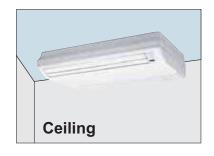
Models: ARXC90 (Unit:mm)







#### ■Flexible installation





#### **Specifications**

Model name			AB*A12LATF	AB*A14LATF	AB*A18LATF	AB*A24LATF		
Power source			220 to 240V 50Hz					
Canacity	Cooling	kW	3.60	4.05	5.30	6.60		
Capacity	Heating	KVV	4.10	5.00	5.60	7.70		
Input power		W	57	57	88	88		
	High		640	640	780	880		
Airflow rate	Med	m³/h	560	560	650	740		
	Low		480	480	550	630		
	High		40	40	46	48		
Sound pressure level	Med	dB(A)	37	37	41.5	45		
	Low		34	34	37	41		
Dimensions (H x W x D)		mm	199 x 990 x 655	199 x 990 x 655	199 x 990 x 655	199 x 990 x 655		
Weight		kg	28	28	28	28		
Connection	Liquid (Flare)	mm	ø6.35	ø6.35	ø9.52	ø9.52		
pipe diameter	Gas (Flare)	HIII	ø12.7	ø12.7	ø15.88	ø15.88		

※AB\*: ABY(FUJITSU), ABG(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.

#### 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 5 steps selectable 1 2 3 4

4 steps selectable

#### Super vane

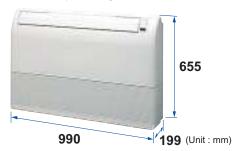
Double-flap "Super Vane" with newly developed special configuration boosts air flow sending cool air quickly to every corner of the room.

#### Auto-closing louvre

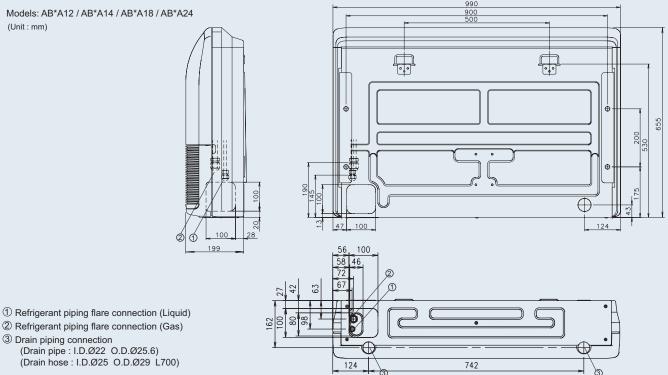
This function is common to all indoor unit types except the duct type.

#### Compact design

Symmetrical, slim and compact design.



#### Dimensions Models: AB\*A12 / AB\*A\*



#### Ceiling

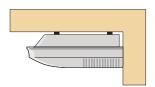
Easily concealed in any installation

#### Models

AB\*A30LATF AB\*A36LATF AB\*A45LATF AB\*A54LATF

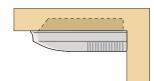


#### Open



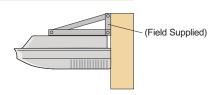
General installation pattern which suspends the indoor unit from the ceiling.

#### Concealed



Installation pattern with part of the indoor unit embedded in the ceiling and fitted to the ceiling.

#### Wall mounted



Pattern which fixes the indoor unit to a wall when it cannot be suspended because space behind the ceiling is narrow and the strength is insufficient.

#### **Specifications**

Model name			AB*A30LATF	AB*A36LATF	AB*A45LATF	AB*A54LATF			
Power source			220 to 240V 50Hz						
Capacity	Cooling	kW	8.80	10.5	12.7	14.1			
Capacity	Heating	KVV	9.10	12.7	13.7	15.8			
Input power		W	124	144	160	180			
	High		1,450	1,660	1,850	2,200			
Airflow rate	Med	m³/h	1,280	1,500	1,660	2,000			
	Low		980	1,270	1,430	1,800			
	High		42	45	48	52			
Sound pressure level	Med	dB(A)	39	42	46	50			
	Low		35	37	41	46			
Dimensions (H x W x D) Weight		mm	240 x 1,660 x 700						
		kg	48	48	48	48			
Connection	Liquid (Flare)	mm	ø9.52	ø9.52	ø9.52	ø9.52			
pipe diameter	Gas (Flare)	mm )	ø15.88	ø19.05	ø19.05	ø19.05			

\*\*AB\*: ABY(FUJITSU), ABG(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.

#### ■ Double auto swing and wide air flow

Auto air flow direction and auto swing

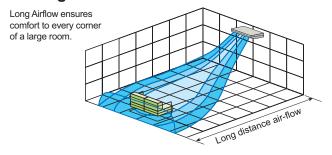
## Right and left 3

5 steps selectable

Up and down

4 steps selectable

#### Long Air Flow

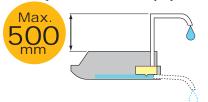


#### ■Slim & Compact design

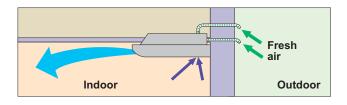


#### ■ Condensate lift-up mechanism (Option)

Optional drain lift-up mechanism allows flexible installation.



#### Fresh air intake



#### Long-life filter

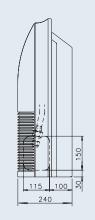
High Efficiency long-life filter doubles the life of the filter compared to standard filters.

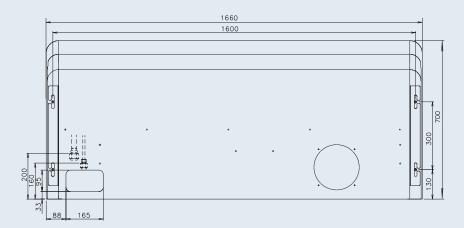
#### Optional parts

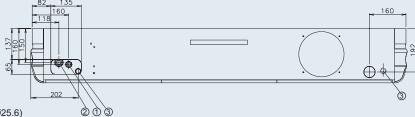
Drain water riser kit UTR-DPB24T

#### **Dimensions**

Models: AB\*A30 / AB\*A36 / AB\*A45 / AB\*A54 (Unit: mm)







- ① Refrigerant piping flare connection (Liquid)
- ② Refrigerant piping flare connection (Gas)
- ③ Drain piping connection (Drain pipe: I.D.Ø22 O.D.Ø25.6)

## Compact Wall Mounted Comfort model

This type of indoor unit is best suited to a room where a low noise level is required

#### Models

AS\*E07LACF AS\*E09LACF AS\*E12LACF AS\*E14LACF

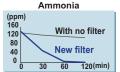


With this model, connection of EV kit is necessary

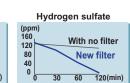
#### Filter features



#### **Deodorizing effect (Odor reduction rate)**







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

#### 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 ingredient extracted from apples.



#### 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.



<sup>\*</sup> The filter can be used for approximately 3 years if it is washed under water to restore its surface action when it is dirty.

#### **Specifications**

Model name	odel name		AS*E07LACF	AS*E09LACF	AS*E12LACF	AS*E14LACF		
Power source			220 to 240V 50Hz					
Capacity	Cooling	kW	2.20	2.80	3.60	4.00		
Сарасну	Heating	KVV	2.50	3.20	4.10	4.80		
Input power		W	13	13	17	19		
	High		490	490	560	600		
Airflow rate	Med	m³/h	450	450	480	490		
	Low		370	370	420	420		
	High		34	34	38	39		
Sound pressure level	Med	dB(A)	32	32	34	35		
	Low		26	26	30	30		
Dimensions (H x W x D)		mm	275 x 790 x 215	275 x 790 x 215	275 x 790 x 215	275 x 790 x 215		
Weight		kg	9	9	9	9		
Connection	Liquid (Flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35		
pipe diameter	Gas (Flare)		ø12.7	ø12.7	ø12.7	ø12.7		
EV Kit			UTR-EV09)	KA (Option)	UTR-EV14	XA (Option)		

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

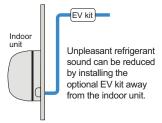
Note: Specifications are based on the following conditions.

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





#### Compact size

#### Powerful output in spite of small size

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.



Auto swing louvre

Cooling : 2-step (1)-2)

Heating: 4-step (1)-(4)

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

1

2

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

Step

Swing



#### 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



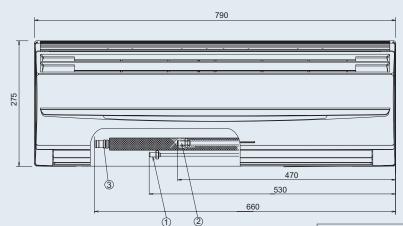
#### Wired-control acceptable

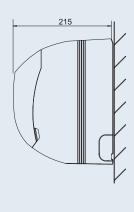


#### **Dimensions**

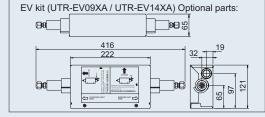
Models: AS\*E07 / AS\*E09 / AS\*E12 / AS\*E14

(Unit : mm)





- ① Refrigerant pipe flare connection (Liquid)
- 2 Refrigerant pipe flare connection (Gas)
- 3 Drain piping connection (Drain hose: I.D.13.8 L600)





air flow to every corner of the room

Models

AS\*A18LATF AS\*A24LATF AS\*A30LATF



#### ■ Powerful output in spite of small size

Though the indoor unit is compact, it features a large, high pressure cross fan (107mm diameter) in a center mounted configuration and a lambda type heat exchanger to provide plenty of power. The extra long diffuser provides a wide outflow opening for air. This ensures a large air outflow volume over a wide area to cool or heat all areas of the room.



#### **Specifications**

Model name			AS*A18LATF	AS*A24LATF	AS*A30LATF		
Power source			220 to 240V 50Hz				
Camanita	Cooling	kW	5.40	6.90	8.00		
Capacity	Heating	KVV	5.60	7.80	8.80		
Input power		W	38	50	60		
	High		800	970	1,040		
Airflow rate	Med	m³/h	650	870	910		
	Low		550	750	730		
	High		41	45	47.5		
Sound pressure level	Med	dB(A)	36.5	41	44		
	Low		33	37	39.5		
Dimensions (H x W x D)		mm	320 x 1,120 x 220	320 x 1,120 x 220	320 x 1,120 x 220		
Weight		kg	16	16	16		
Connection	Liquid (Flare)	mm	ø9.52	ø9.52	ø9.52		
pipe diameter	Gas (Flare)	11/111	ø15.88	ø15.88	ø15.88		

%AS\*: ASY(FUJITSU), ASG(GENERAL)

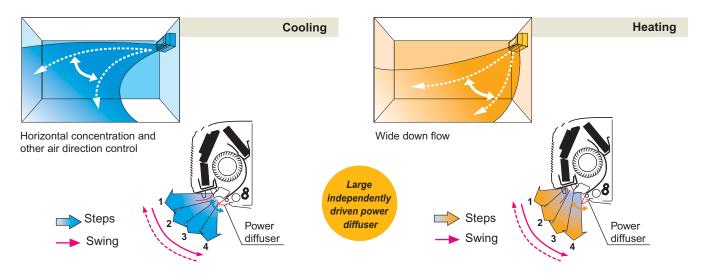
Note: Specifications are based on the following conditions.

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.

#### Multi air flow

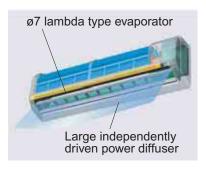
#### Large independently driven power diffuser used



#### Low noise

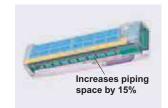
·High efficiency fan construction ⇒ ø7mm Lambda type evaporator improves the airflow path ·Large independently driven power diffuser





#### **■** Easier installation

Expanded work space at bottom of casing increases piping space by 15%.



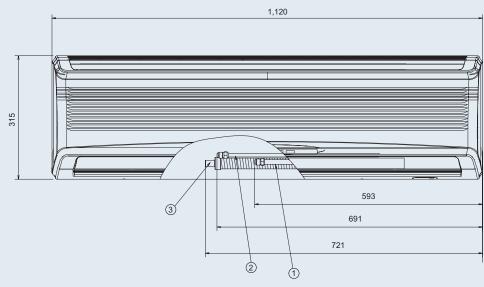
#### Others

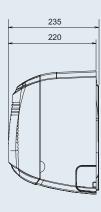
- Double auto swing
- · 2-way draining route

#### **Dimensions**

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

(Unit:mm)



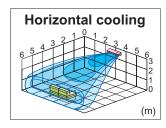


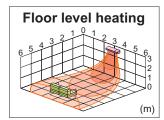
- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection (Drain hose : I.D.Ø17 O.D.Ø24 L670)

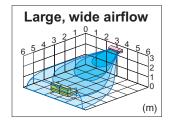


#### Larger, wider airflow

Introduction of the top air intake reduces the curvature of the air flow path thereby achieving lower air resistance, lower noise and larger air volume.







#### **Specifications**

Model name			AW*A07LATF	AW*A09LATF	AW*A12LATF	AW*A14LATF	AW*A18LATF	AW*A24LATF	AW*A30LATF		
Power source				220 to 240V 50Hz							
Canacity	Cooling	kW	2.20	2.80	3.60	4.30	5.40	6.90	8.00		
Capacity	Heating	KVV	2.50	3.20	4.10	4.90	5.60	7.80	8.80		
Input power		W	16	19	20	21	30	40	50		
	High		380	480	600	650	760	900	950		
Airflow rate	Med	m <sup>3</sup> /h	330	420	520	570	660	780	870		
	Low		290	390	470	490	560	650	780		
	High		34	35	35	37	40	44	47		
Sound pressure level	Med	dB(A)	32	32	33	35	37	41	45		
	Low		30	30	31	32	34	37	42		
Dimensions (H x W x D)		mm	270 x 1,150 x 285								
Weight		kg	16	16	16	16	16	16	16		
Connection	Liquid (Flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø9.52	ø9.52	ø9.52		
pipe diameter	Gas (Flare)	11/1111	ø12.7	ø9.52	ø12.7	ø12.7	ø15.88	ø15.88	ø15.88		

\*\*AW\*: AWY(FUJITSU), AWG(GENERAL)

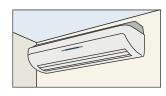
Note: Specifications are based on the following conditions.

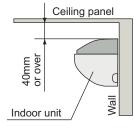
Cooling: Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB. Heating: Indoor temperature of 20°CDB / (15°CWB), and outdoor temperature of 7°CDB / 6°CWB.

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

#### Interior emphasized simple form

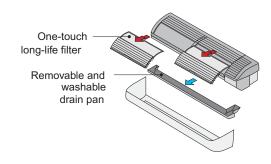
Optimum design for rooms in which you want to enjoy the interior design. This is our unique design which allows installation at a high position (on the wall near the ceiling).





#### ■ Easy maintenance

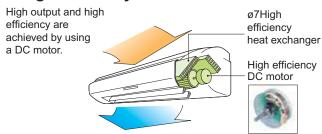
Drain pan can be easily removed for thorough washing without removing the unit from the wall.



#### Long-life filter

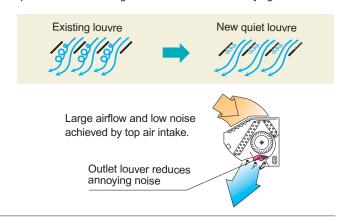
- ·Long-life filter can be removed with one touch.
- ·Long-life filter extends the cleaning cycle by a factor of three.

#### High efficiency



#### Low noise

Suppressing the turbulence by providing vertical grooves on the quiet louver and the right/left louvre reduces annoying noise.



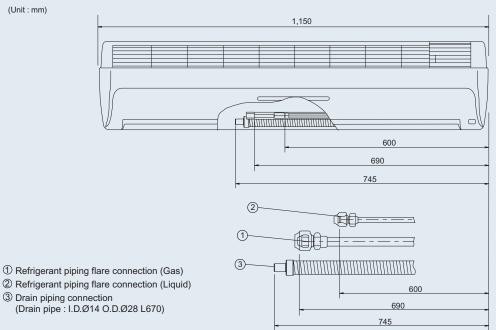
#### Others

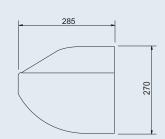
- · Double auto swing (Right and left, up and down)
- · 2-way draining route

#### **Dimensions**

Models: AW\*A07 / AW\*A09 / AW\*A12 / AW\*A14 AW\*A18 / AW\*A24 / AW\*A30

(Unit:mm)





#### **Optional Parts**

#### **Connection Tube**

#### **Separation Tube**

Model: UTR-BP090X / UTR-BP090L



#### **Separation Tube**

Model: UTR-BP180X / UTR-BP180L



#### **Separation Tube**

Model: UTR-BP567X / UTR-BP567L





#### **Outdoor Unit Branch kit**

Model: UTR-CP567X / UTR-CP567L
Liquid Pipe Gas Pipe



#### Header

Model: UTR-H0906L UTR-H1806L



#### Header

Model: UTR-H0908L UTR-H1808L



#### Outdoor unit Branch kit

Outdoor unit	Model	Q'ty
2 outdoor units	LITE OFFICE (LITE OFFICE	1
3 outdoor units	UTR-CP567X / UTR-CP567L	2

#### Indoor side Branch kit

Separation Tube

Total model code of indoor unit	Separation Tube
90 or less	UTR-BP090X / UTR-BP090L
91 to 180	UTR-BP180X / UTR-BP180L
181 or more	UTR-BP567X / UTR-BP567L

#### Header

Total model code of indoor unit	Header	
	6 Branches	8 Branches
90 or less	UTR-H0906L	UTR-H0908L
91 to 180	UTR-H1806L	UTR-H1808L

EV kit

Application Model	Model	
AS*E07LATF AS*E09LATF	UTR-EV09XA	
AS*E12LATF AS*E14LATF	UTR-EV14XA	

#### **Others**

#### Flange (Square)

Model: UTD-SF045T



For Low Static Pressure Duct type / Duct type

#### Flange (Round)

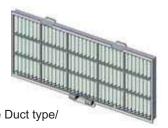
Model: UTD-RF204



For Low Static Pressure Duct type / Duct type

#### Long-life filter

Model: UTD-LF25NA



For Low Static Pressure Duct type/ Duct type

#### Long-life filter

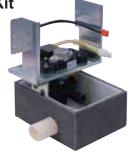
Model : UTD-LF60KA



For High Static Pressure Duct type

#### **Drain Water Riser Kit**

Model: UTR-DPB24T



**Remote Sensor Unit** 

Model: UTD-RS100



For Ceiling type

#### **Grille Kit**

Model : UTG-UDYD-W UTG-UDGD-W



EV Kit

Model code < 09 : UTR-EV09XA Model code ≥ 12 : UTR-EV14XA



For Compact Wall Mounted (Comfort model) type

For Compact Cassette type











ISO 9001 ISO 14001 d number:09 100 89394 Certified number:09 104 9245 Fujitsu General (Thailand) Co., Ltd. ISO 9001 Certified number:09 100 89394



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

"AIRSTAGE™" is a worldwide trademark of FUJITSU GENERAL LIMITED.

\*Microsoft® and Windows® are registered trademarks of Microsoft Corporation in the United States.
\*Adobe® and Acrobat Reader® are registered trademarks of Adobe Systems Incorporated in the United States.

\*Intel®, Pentium®and Celeron®are registered trademark of Intel Corporation or its subsidiaries in the United States.

\*AMD Athlon™and AMD Duron™are registered trademark of Advanced Micro Devices, Inc.

\*Echelon®, LONWORKS®, and the Echelon logo are trademarks of Echelon Corporation registered in the United States and other countries.

\*BACnet®is a registered trademark of the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE).

Product specifications are subject to change without notice.

Distributed by :

Copyright® 2006-2007 Fujitsu General Limited. All rights reserved.

#### FUJITSU GENERAL LIMITED