

INVERTER



AIRSTAGETM

Variable Refrigerant Flow System
Multi Air Conditioning System for Buildings

**The Intelligent Choice
in Comfort**

J **SERIES**

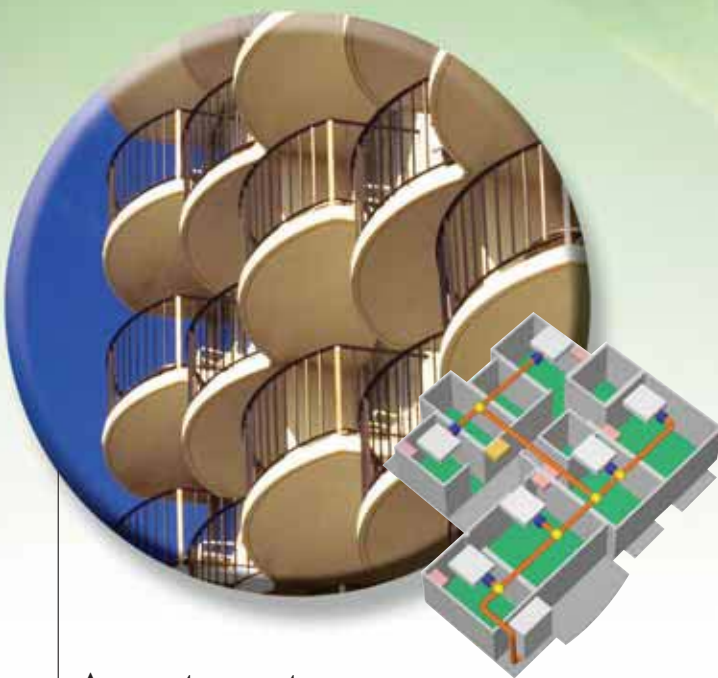


FUJITSU GENERAL LIMITED

High-performance air conditioning system

The compact VRF System provides economical and comfortable air conditioning for wide range of applications from living space to business space.

Compact VRF System for use in apartments, homes, shops, offices



Apartments

The common areas and individual room spaces in apartment blocks have differing air conditioning needs. What is required is an air conditioning system that provides comfortable conditions and is economical and surroundings conscious.

Homes

Homes need individual air conditioning control for specific rooms that can also be easily switched to standby mode if the occupants have to go out at short notice.



A range which allows an unlimited combination of indoor and outdoor units accord

Outdoor units

R410A

R410A

Heat Pump



AO54U

Cooling Only



AO54F

P4, P5

Indoor units



AU7 / AU9 / AU12 /
AU14 / AU18

P14

Cassette



Slim Type
AU20 / AU25 / AU30



AU36 / AU45 / AU54

P15

Compact Duct



AR7 / AR9



AR12 / AR14 /
AR18 / AR22

P16

Duct

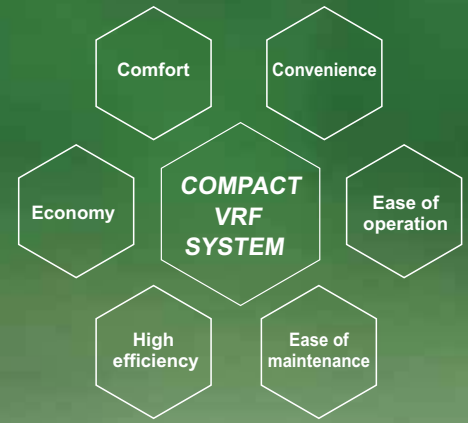


AR25 / AR30 /
AR36 / AR45

P17

A compact VRF System that responds to the needs of each building

Backed by advanced air conditioning technology, this compact VRF System was developed to meet six key requirements: high efficiency, economy, comfort, convenience, ease of operation, and easy maintenance. This VRF System delivers a comfortable and economical environment.



and a broad range of other applications

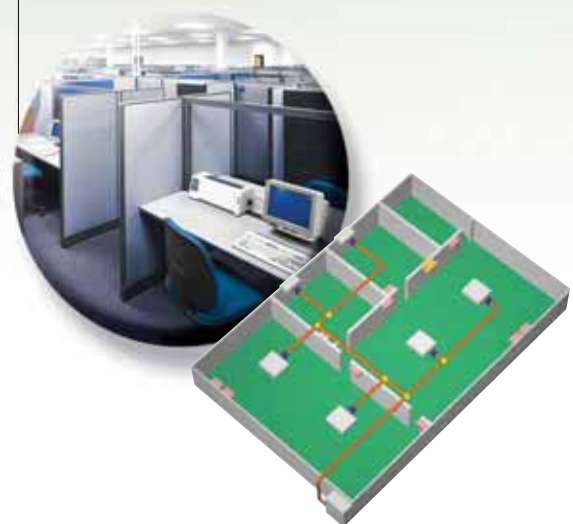


Shops









As shop premises are regularly upgraded and the operating conditions for each can vary so much, large-scale air conditioning management is very difficult. Consequently, a VRF air conditioning system matched to each shop is an ideal solution.

Offices

The spaces within office premises can all have different air conditioning requirements. Energy saving and economic operation are major issues and what is needed is an air conditioning system which can be accurately matched to each space and centrally controlled.



ing to the building and application

		Remote controller (Option)			Accessories	
Compact Wall Mounted  AS7 / AS9 / AS12 / AS14 P18	Wall Mounted  AS18 / AS24 / AS30 P19	Group Remote Controller  *1 UTB-YDB / UTB-GDB P9	Wired Remote Controller  UTB-YUB / UTB-GUB / UTB-TUB P10	Simple Remote Controller   UTB-YPB / UTB-GPB / UTB-TPB UTB-YRA / UTB-GRA / UTB-TRA P10	Wireless Remote Controller  P11	IR Receiver Unit  (Duct type only) P24

*1. Network converter (UTR-YGCA) is required, when installing group remote controller.

High-performance outdoor unit delivering com



Heat Pump Cooling Only
 AO*54UJCMR AO*54FJCMR

※AO* : AO (FUJITSU), AOG (GENERAL)



Powerful operation with low electricity consumption

- Excellent COPs are attainable as shown in the table below.

Cooling COP	3.20 [※]
Heating COP	3.40 [※]

* "COP" is the coefficient of performance (= capacity (kW) ÷ input power (kW)).

※ COP values are based on our own testing method.

- Uses a high-performance DC inverter scroll compressor with variable capacity according to the load during cooling and heating.

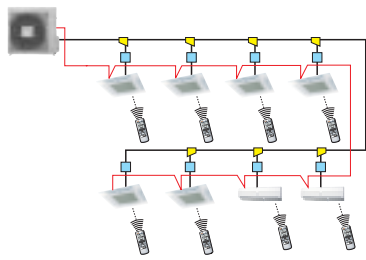


High-capacity connection possible

- One outdoor unit can connect to up to 8 indoor units.
- Connectable capacity is 150% of the outdoor unit rating and can cope with a range of operating modes.

Max 8 indoor units connectable

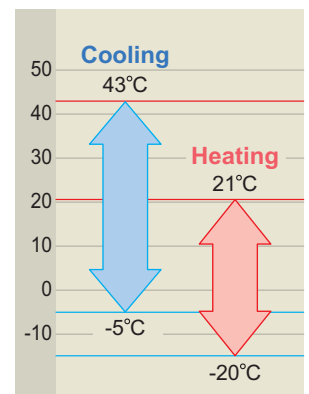
Indoor unit connectable capacity 150%



When all indoor units are operating at maximum capacity, individual indoor units operate at slightly lower capacity when connecting more than 100%.

Operating outside air temperature range

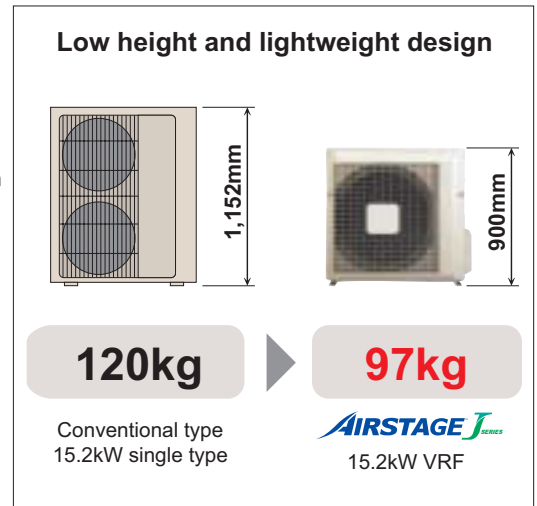
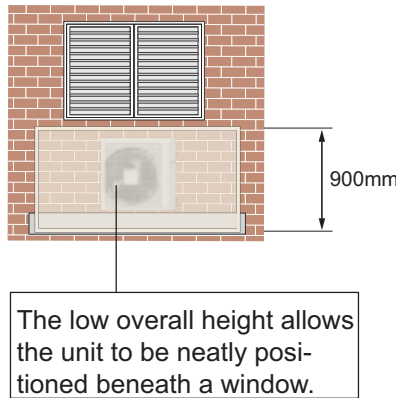
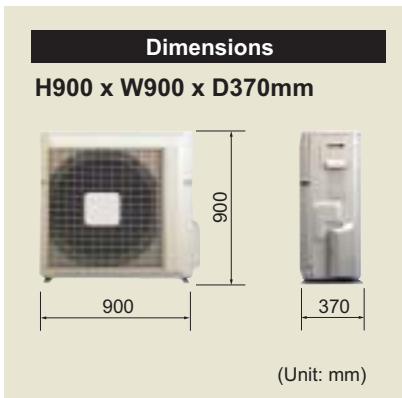
- Outdoor unit operates over an ambient temperature range of -5°C to 43°C for cooling and -20°C to 21°C for heating.



fort and economy

Lightweight and compact design

- Small, compact casing can be easily concealed.

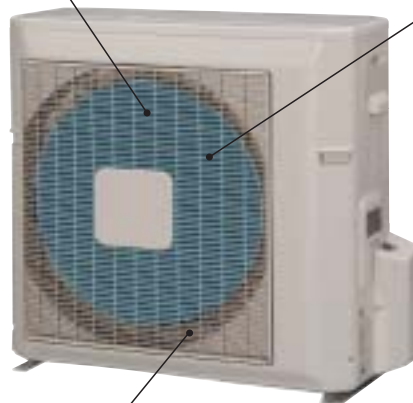


Noise reduction

- Newly designed larger fan and double casing bell mouth construction reduce noise emissions.

Large fan

Low-speed design suppresses noise by using a larger fan.



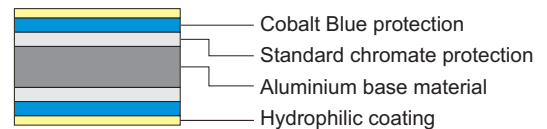
Double casing bell mouth

Double casing bell mouth helps to reduce noise.

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.

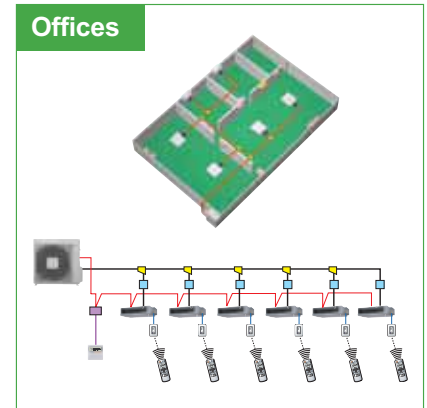
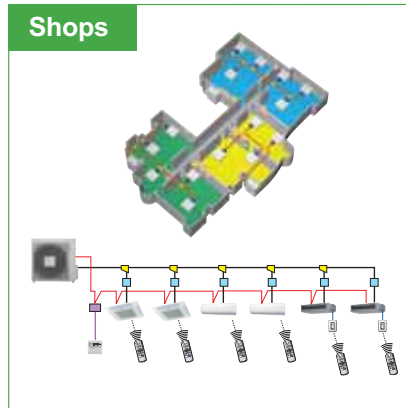
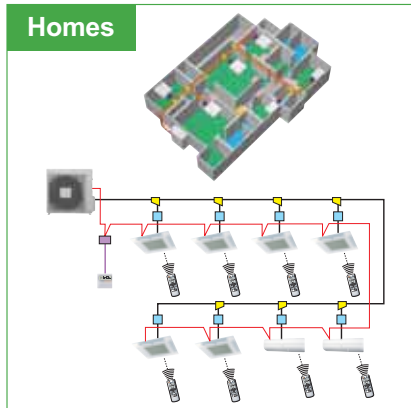
Blue fin heat exchanger



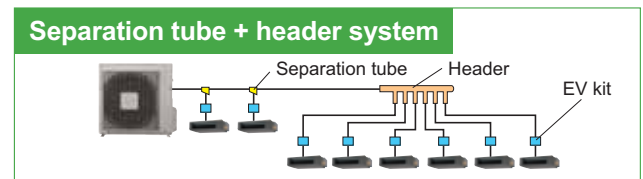
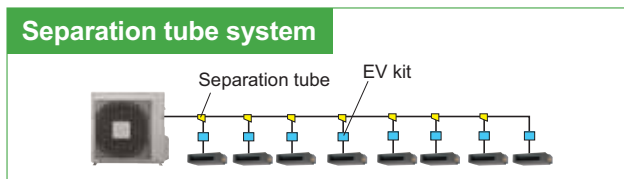
Compact VRF System allows design flexib

Flexible design Superior design flexibility allows individual air conditioning of multiple rooms.

System that allows individual air conditioning of multiple rooms

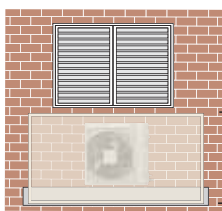


Piping connection examples



Easier outdoor unit installation

- Discreet installation



Height	900
Width	900
Depth	370

Unit: mm

The compact dimensions allow the outdoor unit to be installed below a window.

Large capacity connectable

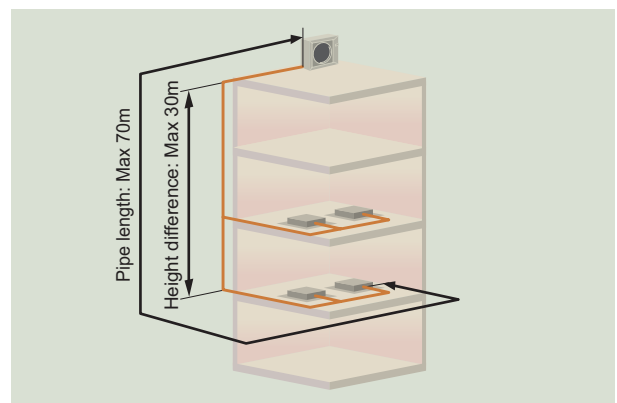
- Up to 8 indoor units can be connected to 1 outdoor unit. Furthermore, the indoor unit connection capacity can be up to 150% of the outdoor unit rating. This increases design flexibility.

Max 8
Indoor units
connectable

150%
Connectable
capacity

Long piping length

- The maximum piping length is 70m, and can cope with a wide range of applications from homes to offices.



All indoor units are supplied with a remote controller

- All indoor units come with a wireless remote controller.

Note: IR receiver unit is available for duct type indoor unit.

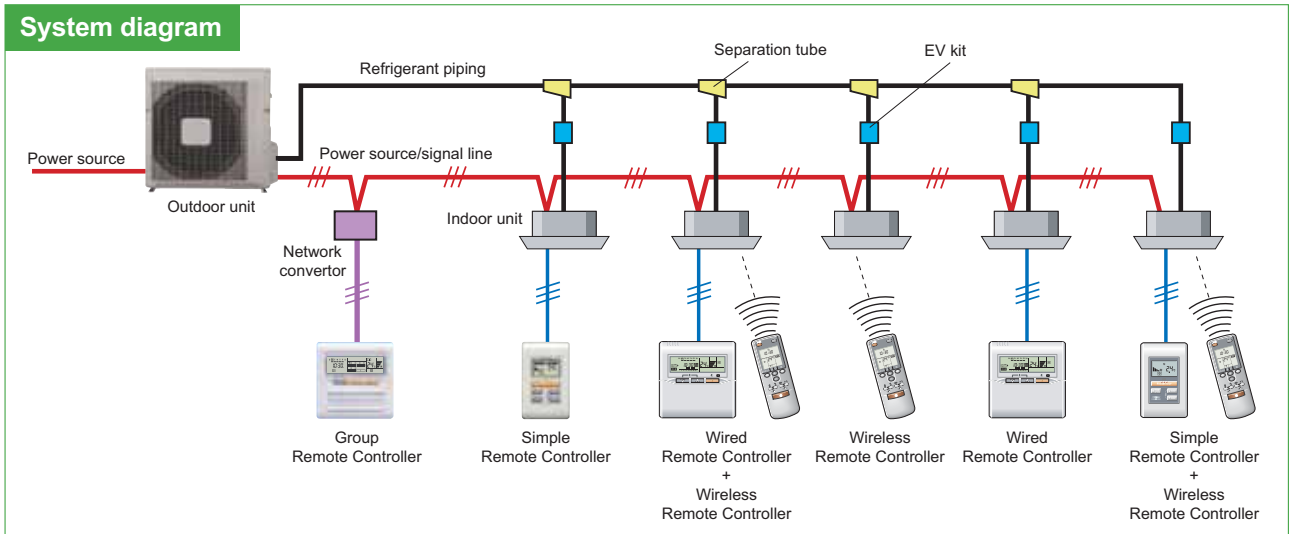
ility and efficient operation

Easy installation Quick and easy to install.

Easy to understand piping and wiring installation

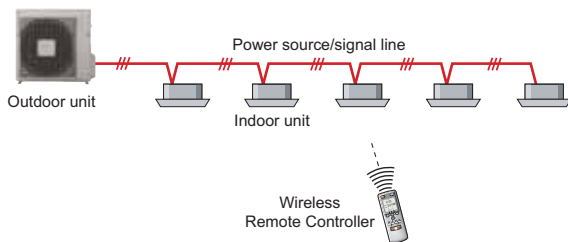
- The wiring work is simple in the connection wiring system one by one.
- The dedicated communication line is unnecessary.
- The electrical work is simple because of single-phase power supply.

System diagram



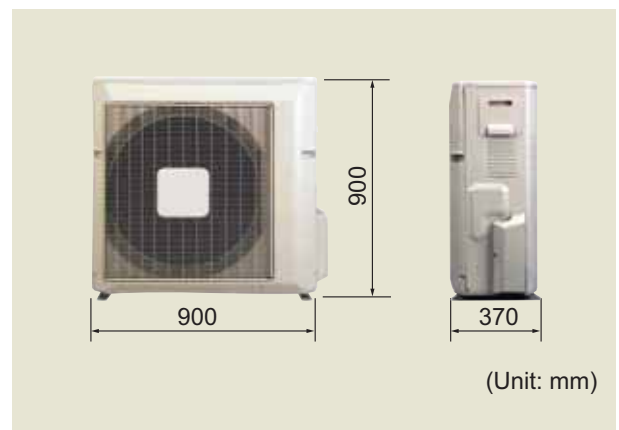
System addressing

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



Easier installation of the outdoor unit

- Compact size and lightweight



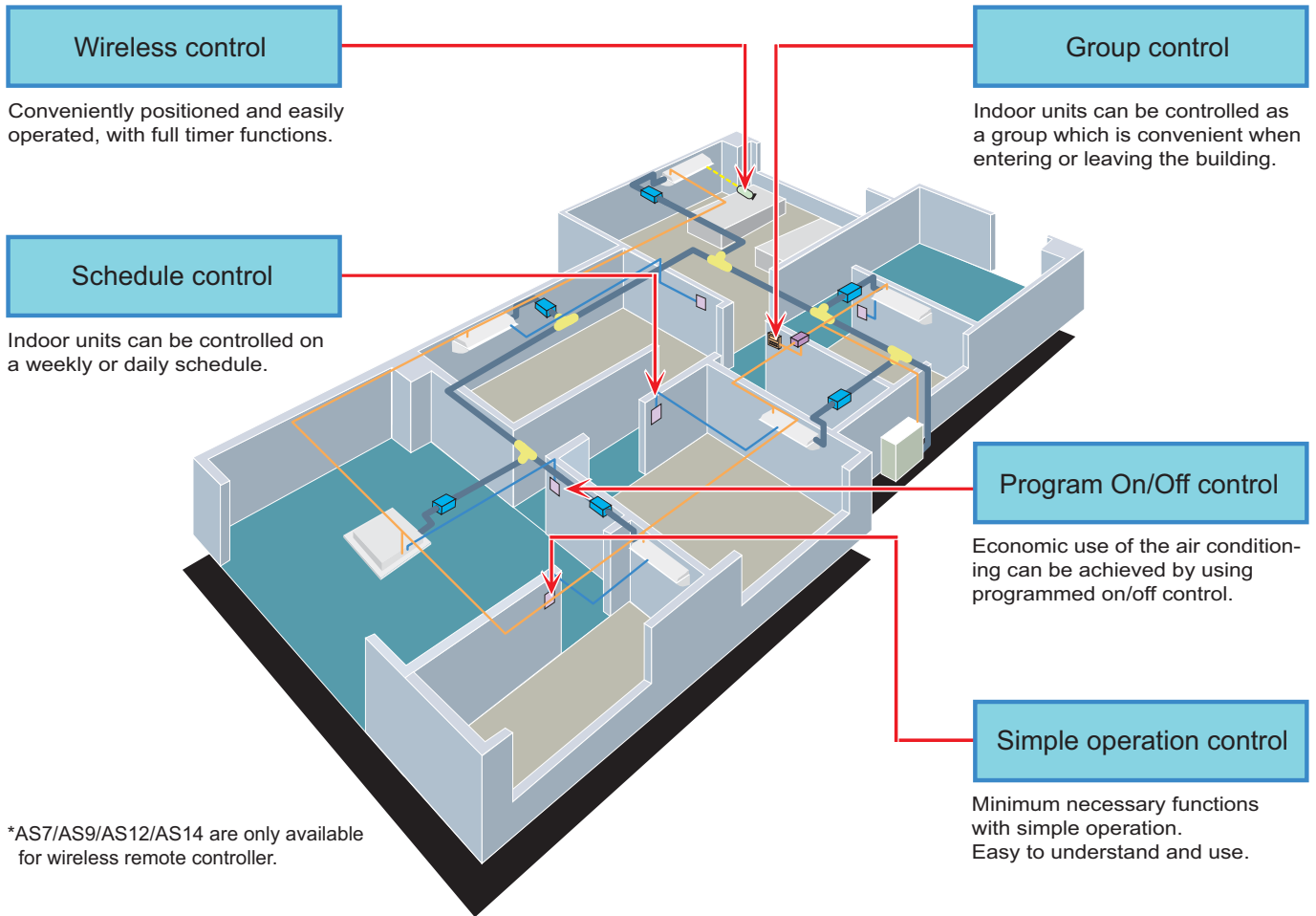
Weight

97kg

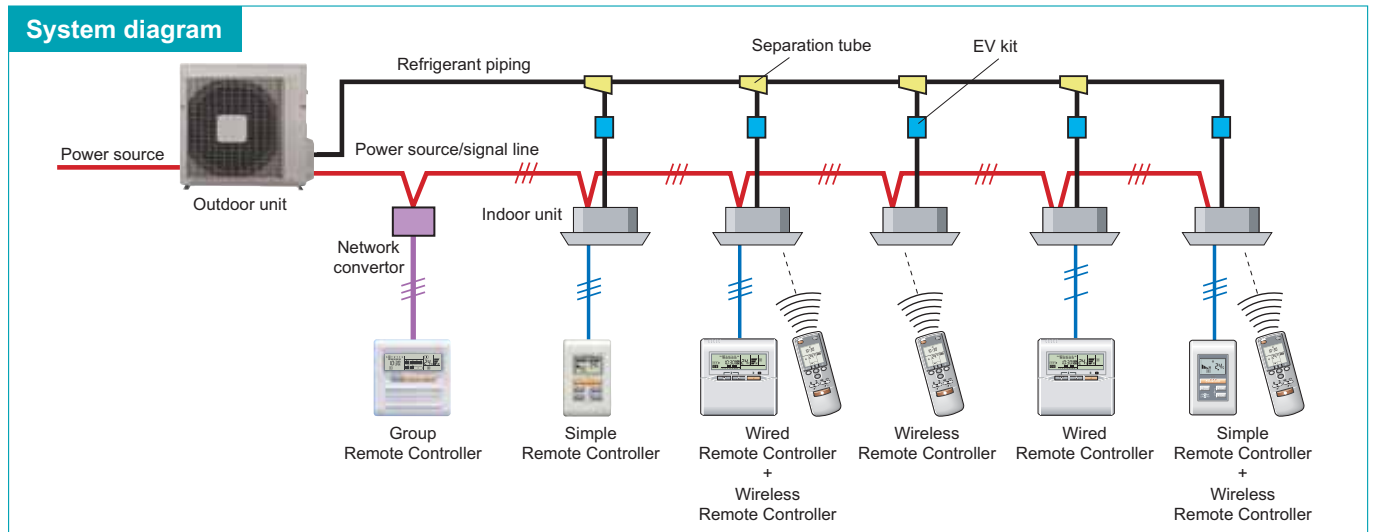
The outdoor units is light and compact and easy to handle during installation.

Control system that always provides a pleasant air conditioned environment

Five types of controllers are available to meet the varied needs of the building and the user. Tighter control over the air conditioned environment can be achieved by combining group remote controller which can operate all the indoor units at the same time, a wired remote controller with a weekly or daily schedule, a wireless remote controller and a simple remote controller.



System diagram



Group remote controller which can operate all the indoor units

Group Remote Controller

UTB-YDB / UTB-GDB [Option]

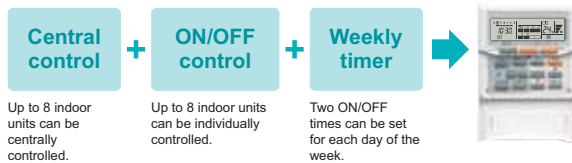
Group control of indoor units with simple operation

- Up to 8 indoor units can be controlled with a single controller.
- Network Converter (UTR-YGCA) is required to connect Group Remote Controllers to an VRF system.



High performance and compact size

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

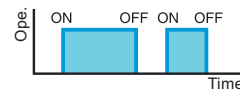


Built-in weekly timers

The weekly timer is provided as a standard function.

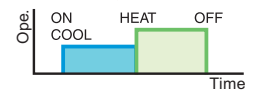
1. The timer can be set up for up to 4 times per day. (On / Off, master control, set temperature)
2. Allows separate settings for each day of the week.

ON/OFF switching



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

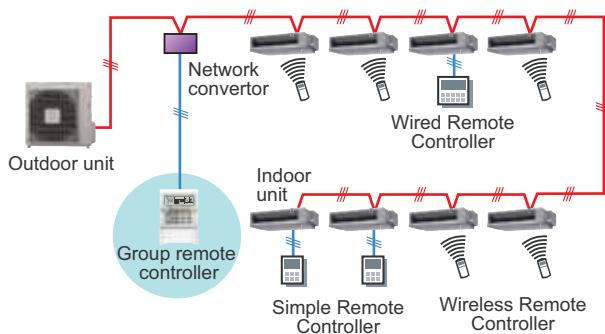
Cooling / Heating switching



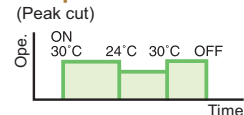
Switching between the cooling mode and heating mode can be set by time.

System configuration

Group/individual control of up to 8 units is possible with a single controller.

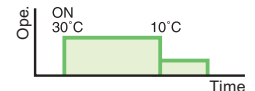


Temperature switching



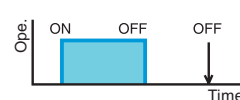
Since peak power cut is performed in a planned way, setting which changes the room temperature linked with time is possible.

(Anti-freeze)



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

Stop setting



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

Specifications

Model	Group Remote Controller		Network Converter
	UTB-YDB/UTB-GDB		UTR-YGCA [Option]
Power Supply	DC 12V		220-240V 50-60Hz
Dimension (mm)	Height	120	86
	Width	120	313
	Depth	17	216
Weight (g)	200		1,900

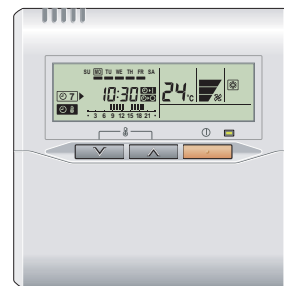
A controller can be chosen according to user

Wired Remote Controller

UTB-YUB / UTB-GUB / UTB-TUB [Option]

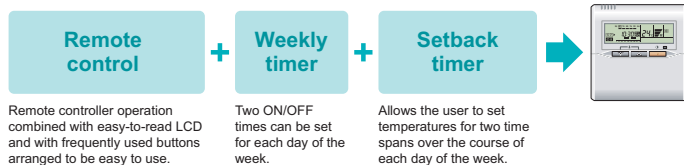
Weekly timer and timer function are easily operated.

Dimensions (H x W x D) 120 x 120 x 17



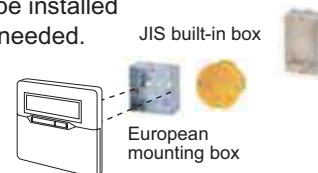
Powerful features and compact size

Wired remote controller, Weekly timer and Setback timer functions are combined in one compact unit.



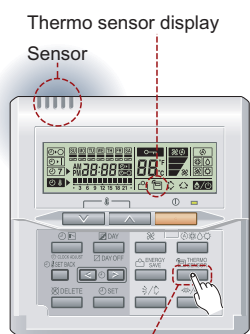
Simple installation

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

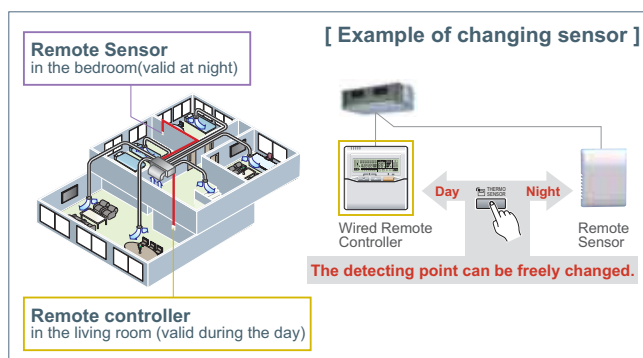


Accurate and Comfortable

Indoor temperature can be detected accurately because a thermo sensor has been added in the body of the wired remote controller. The detecting point in the room can be freely changed with the new type wired remote controller (thermo sensor added) and remote sensor (Option).



Control button for changing the thermo sensor



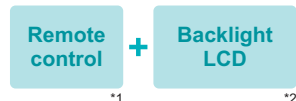
Simple Remote Controller

UTB-YPB / UTB-GPB / UTB-TPB [Option]

UTB-YRA / UTB-GRA / UTB-TRA [Option]

Simple remote controller concentrating on basic operations.

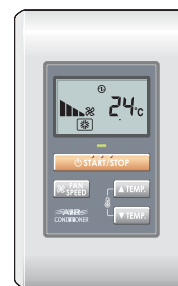
Dimensions (H x W x D mm) 120 x 75 x 14



*1: Remote control with the minimum required operation buttons.
*2: A simple LCD with the background lighted.



UTB-YPB / UTB-GPB / UTB-TPB



UTB-YRA / UTB-GRA / UTB-TRA

Without master control

Simple operation

- A large Start/Stop button is provided in the centre of the remote controller unit for easy operation.
- The backlight is lit during button operations, and for 10 seconds longer in the operation mode and 5 seconds longer in the stop mode.



Functions

Model	UTB-YPB UTB-GPB UTB-TPB	UTB-YRA UTB-GRA UTB-TRA
Operation		
On/Off	●	●
Fan control	●	●
Master control	●	—
Temp. setting	●	●

needs

Wireless Remote Controller [Accessory]

Four kinds of timers. Easy operation.

- Wireless remote controller is an accessory of all indoor units.
- An IR Receiver Unit necessary for operation by accessory wireless remote controller is connected to Duct type indoor unit.

Dimensions (H x W x D mm) 158 x 56 x 20

Remote control	+	ON timer	+	OFF timer	+	Program timer	+	Sleep timer
Remote controller operation combined with easy-to-read LCD and with frequently used buttons arranged to be easy to use.		At the set time, air conditioner operation starts.		At the set time, air conditioner operation stops.		*1		*2



Built-in daily timer

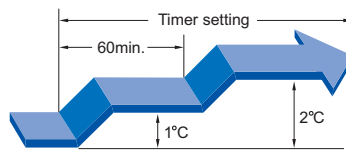
Select from 4 different timer programs : On / Off / Program / Sleep

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

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

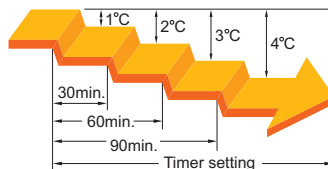
Cooling operation / dry operation

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.

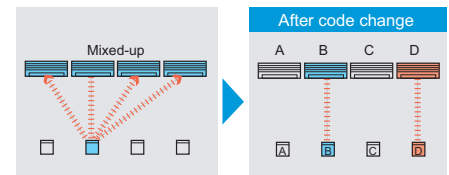


Heating operation

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.



Simple operation



- Code selector switch prevents units from being wrongly switched. (Up to 4 codes can be set.)

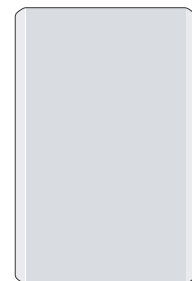


External Switch Controller

UTR-YESA [Option]

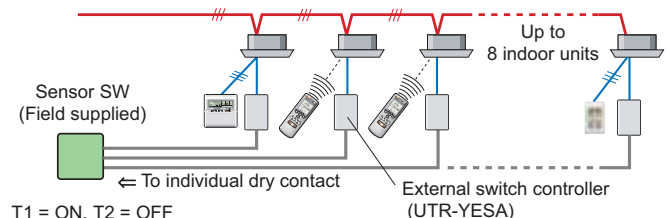
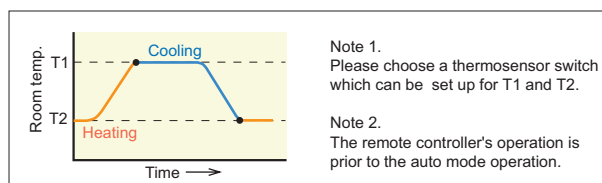
- On/Off, Temperature, Fan control, and Master control can be switched in combination equipped with the Card-key switch or sensor switch.
 - Switching of the air conditioner can be controlled by connecting other sensor switches.
- *Card-key and other sensor switches are available as field supplied parts.

Dimensions (H x W x D mm) 120 x 75 x 30



















Installation example

- Auto mode operation, which switches the cooling and the heating auto-matically, is enabled by using the sensor switch and external switch controller. In that case, all indoor units run in the same operation mode.



Select to match the capacity and type of the room

Indoor unit line up 8 types 28 models, ranging from 2.15kW to 14.10kW.

Capacity range (kW)▶	2.15	2.8	3.6	4.0	5.3	5.7
▼ Type Model code▶	7	9	12	14	18	20
Compact Cassette P14	 AU7UFAAR	 AU9UFAAR	 AU12UFAAR	 AU14UFAAR	 AU18UFAAR	
Slim Type Cassette P15						Slim Type  AU*20UFARR
Compact Duct P16	 ARXA07LALR	 ARXA09LALR	 ARXA12LALR	 ARXA14LALR	 ARXA18LALR	
Duct P17						
Compact Wall Mounted P18	 AS*7UFADR	 AS*9UFADR	 AS*12UFADR	 AS*14UFADR		
Wall Mounted P19					 AS*18UFAJR	

•AU*: AUY(FUJITSU), AUG(GENERAL) •AS*: ASY(FUJITSU), ASG(GENERAL)

Accessories

6.0	6.9	7.05	8.8	10.5	12.7	14.1	Wireless Remote Controller	IR Receiver Unit
22	24	25	30	36	45	54		
								
		 Slim Type AU*25UFARR	 Slim Type AU*30UFARR	 AU*36UFASR	 AU*45UFASR	 AU*54UFASR		
 ARXA22LALR								
		 AR25UFAAR	 AR30UFAAR	 AR36UFAAR	 AR45UFAAR			
								
	 AS*24UFAJR		 AS*30UFAJR					

Slim and compact cassette, designed for lim

Compact Cassette

AU7UFAAR AU9UFAAR AU12UFAAR
AU14UFAAR AU18UFAAR

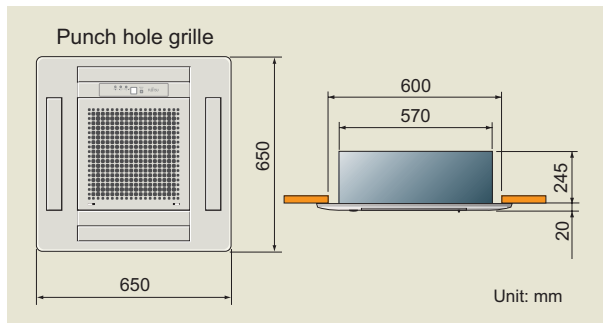


Wireless Remote Controller

Features

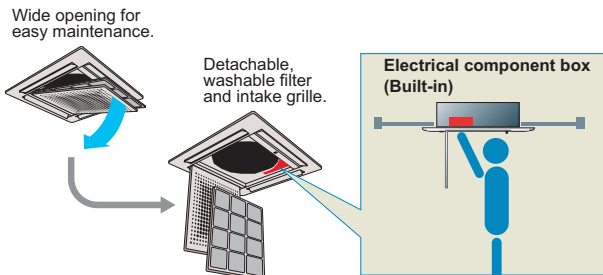
Compact size

Compact grille fits European ceiling panel (600mm x 600 mm).

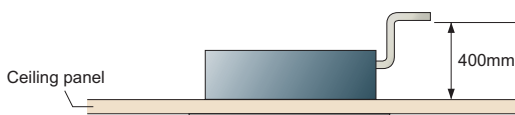


Easy maintenance

Placing all the electrical components inside the unit ensures easy maintenance.

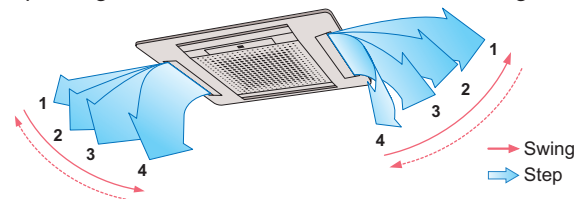


Condensate pump lifts to 400mm



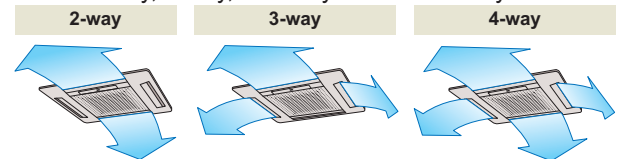
Comfortable air flow

4-step swing: Auto air flow direction and auto swing



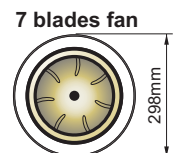
2-4 way air flow system:

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



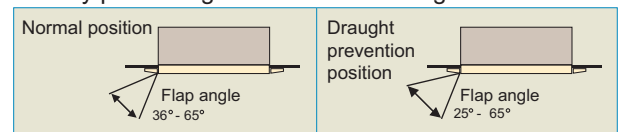
Extremely quiet

Large air flow at reduced noise output achieved by incorporating a large diameter variable pitch turbo fan.



Draught prevention

The angle of the flap can be changed during installation, thereby preventing uncomfortable draughts.



Optional parts

Grille kit UTG-UDYD-W, UTG-UDGD-W

ited ceiling space

Cassette Slim Type

AU*20UFARR AU*25UFARR AU*30UFARR

Cassette

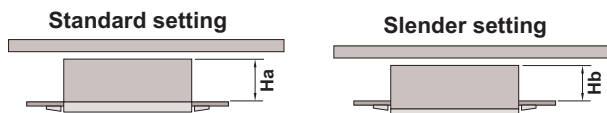
AU*36UFASR AU*45UFASR
AU*54UFASR



Features

Flexible installation

Compact body ensures space saving installation. A slender fit option is available where ceiling void space is limited.



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

Easy maintenance

Long-life filter
High efficiency, long-life filter extends the cleaning cycle.

Simple maintenance
The control box is easy accessible for maintenance work.

Detachable, washable filter and intake grille.

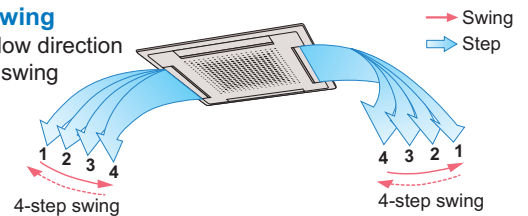
Condensate pump lifts to 800mm



Comfortable air flow

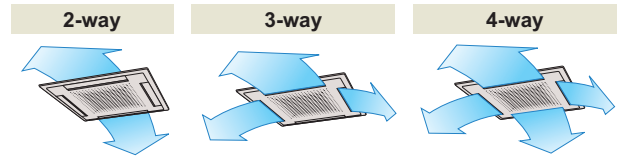
4-step swing

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.

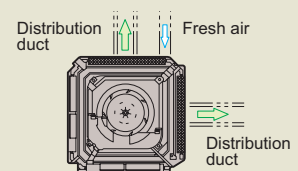


Wide air flow

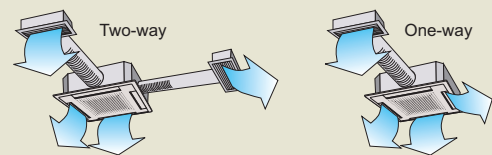
Unit louvre distributes the outlet air flow further in the horizontal direction.

Duct connection hole opening

Fresh air can be introduced through this opening.



Conditioned air can be distributed by means of a distribution duct.



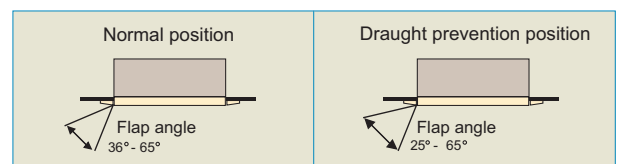
Improved noise level and air distribution

Noise output has been dramatically lowered.

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

Draught prevention

The angle of the flap can be changed during installation, thereby preventing uncomfortable draughts.



Ultra-slim duct air conditioner for use with

*Wireless remote controller and IR receiver unit is supplied with all duct type indoor units.

Compact Duct

ARXA07LALR ARXA09LALR ARXA12LALR
ARXA14LALR ARXA18LALR ARXA22LALR



Features

Compact and space-saving design

Ultra-slim unit simplifies installation.



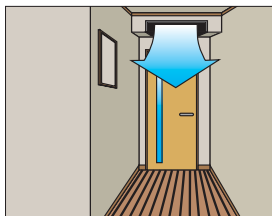
Low noise level

These compact duct type units are extremely quiet.

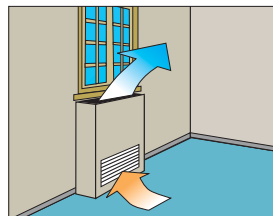
Model		7	9	12	14	18	22
Static pressure (standard/max)	Pa	0 / 40					
Air flow volume (high/low)	m ³ /h	420/360		620/470		890/780	
Noise level (Low speed)	dB(A)	31		27		38	

Easy installation (Universal type)

Slim and compact dimensions allow for ceiling installation or floor standing.



Perfectly housed in ceiling space.



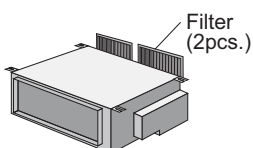
Perfectly housed in the space below a window.

Installation example

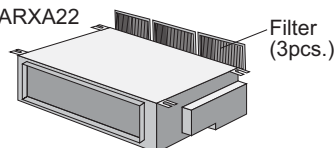


Filter (Accessory)

ARXA07 / ARXA09



ARXA12 / ARXA14 / ARXA18 / ARXA22



Others

- Air intake from rear or bottom side
- Two direction drain piping

Optional parts

Remote sensor unit UTD-RS100

very low ceilings

Duct

AR25UFAAR AR30UFAAR
AR36UFAAR AR45UFAAR

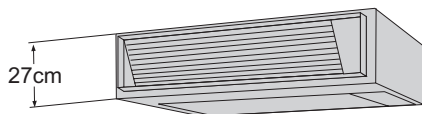


*Wireless remote controller and IR receiver unit is supplied with all duct type indoor units.

Features

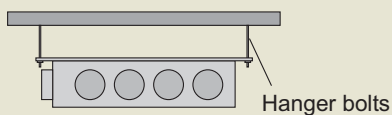
Savings in space and reduction in noise

These duct type indoor units save space and provide excellent acoustic characteristics.

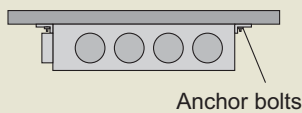


Easy installation

Suspended Installation



Direct Installation

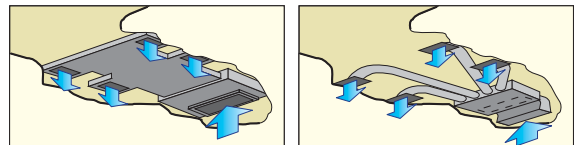


Installation example

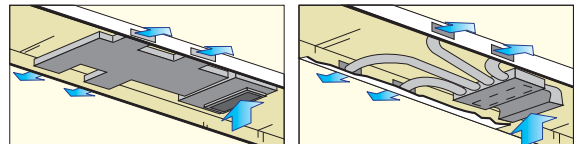


Installation styles

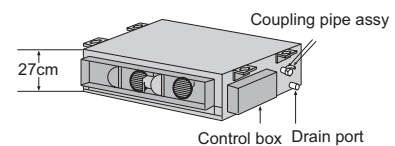
Embedded Ceiling



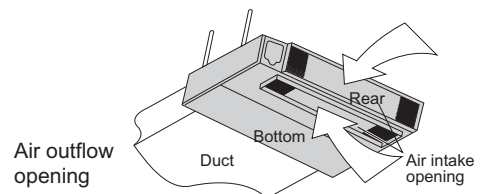
Hanging from Ceiling



Piping can be run in almost any direction



Fresh air can be taken in from 2 directions



Optional parts

Flange (square)	UTD-SF045T
Flange (round)	UTD-RF204
Long-life filter	UTD-LF270
Remote sensor unit	UTD-RS100

Attractive wall-mounted unit that delivers a

Compact Wall Mounted

AS*7UFADR AS*9UFADR AS*12UFADR AS*14UFADR



Wireless Remote Controller

Features

*AS7/AS9/AS12/AS14 are only available for wireless remote controller.

Symmetrical design

Symmetrical, clean design that suits all interiors.

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.

Height	257
Width	808
Depth	187

Unit: mm



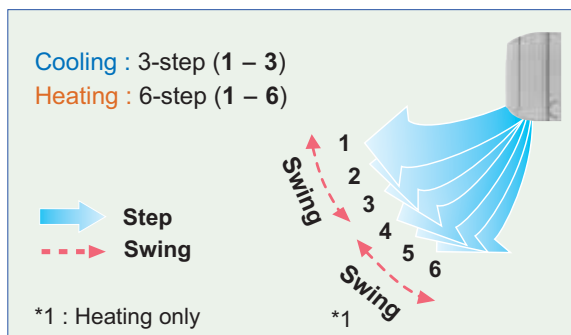
Low noise

Fan speed	dB (A)
HIGH	30
LOW	26

*AS7 model data

Auto swing louvre

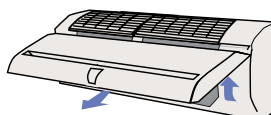
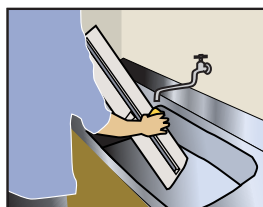
The Auto Swing Louvre function ensures that the air direction corresponds to the mode selected.



Washable open panel

Cleaning the washable panel removes mould and dust.

A regular wipe with a dry cloth keeps the casing clean.



Since the panel is removed and easily washed, it is always clean. Filter cleaning is also simple.

comfortable, easily adjustable air flow

Wall Mounted

AS*18UFAJR AS*24UFAJR AS*30UFAJR



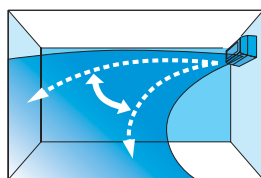
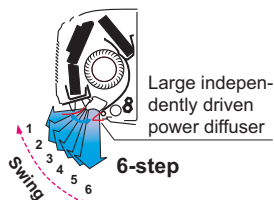
Features

Pleasant multi-air flow

Effective air flow within a room is achieved by the unique operation of the power diffuser. The angle of the louvre can be adjusted in six steps to give draught-free air flow.

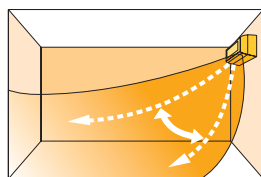
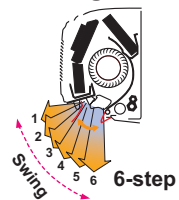
Wide air flow realized by unique operation of the power diffuser

Cooling

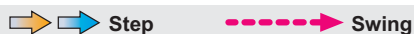


Horizontal concentration and other air direction control

Heating



Warm air reaches every



Other functions

Other features include the functions of the existing wall mounted type.

- 2-way draining route
- Double auto swing

Optional parts

Air clean filter (UTR-FA08)

Symmetrical design



Wide airflow with super vane



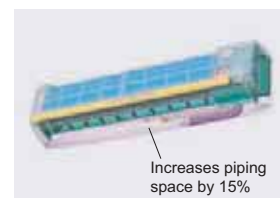
Easy-to-read center display



Vertical and horizontal symmetrical design matched to the interior decor

Easy installation

Larger space at base of housing means an extra 15% of piping space.



Specifications

AO* : AO (FUJITSU), AOG (GENERAL)

Outdoor unit				AO54U		AO54F	
Model code				AO*54UJCMR		AO*54FJCMR	
Model name				AO*54UJCMR		AO*54FJCMR	
Power source				Single-phase, 220-240V, 50Hz			
Capacity	Cooling	kW	15.2		—		
	Heating		16.6		—		
Input power	Cooling	kW	4.75		—		
	Heating		4.88		—		
Maximum current		A	30A, 25A, 20A, 15A (The ranges can be selected by setting DIP switch)				
COP	Cooling	3.2		—			
	Heating	3.4		—			
Heat exchanger fin				Blue fin			
Air circulation			m ³ / h	5,250			
Fan type x Number				Propeller x 1			
Fan motor output			W	150			
Noise level (sound pressure)	Normal operation mode		dB(A)	56			
	Silent operation mode			51			
Compressor	Type		Scroll				
	Driving method		DC inverter				
	Motor output		W	3,000			
Refrigerant				R410A			
Refrigerant oil				Synthetic oil (POE oil)			
Casing color				Beige			
Dimensions (H x W x D)	Net	mm	900 x 900 x 370				
	Gross		1,021 x 1,026 x 436				
Weight	Net	kg	97				
	Gross		112				
Safety devices				Fan motor thermal protector, High pressure switch, Low pressure switch, Fuse			
Operation range	Cooling	°C	-5 to 43		—		
	Heating		-20 to 21		—		
Pipe	Diameter	Liquid / Gas	mm	Ø 9.52 / Ø 19.05			
	Max length / Max height difference		m	70 / 30			
	Pipe connection method				Flare		
Connectable indoor units				Maximum 8			
Connectable indoor unit capacity				50% to 150%			



AO54U



AO54F

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature 27°CDB/19°CWB, and outdoor temperature 35°CDB/(24°CWB).

Heating: Indoor temperature of 20°CDB/(15°CWB), and outdoor temperature 7°CDB/6°CWB.

Voltage: 230 [V]

AU* : AU (FUJITSU), AUG (GENERAL)

Indoor unit			Compact Cassette					Cassette					
Model code			AU7	AU9	AU12	AU14	AU18	AU20	AU25	AU30	AU36	AU45	AU54
Model name			AU7 UFAAR	AU9 UFAAR	AU12 UFAAR	AU14 UFAAR	AU18 UFAAR	AU*20 UFARR	AU*25 UFARR	AU*30 UFARR	AU*36 UFASR	AU*45 UFASR	AU*54 UFASR
Power source			220-240V, 50Hz										
Cooling capacity	kW		2.15	2.80	3.60	4.00	5.00	5.70	7.05	8.80	10.5	12.7	14.1
	BTU / h		7,400	9,600	12,300	13,700	17,100	19,500	24,100	30,000	35,800	43,400	48,100
Heating capacity	kW		2.45	3.10	4.10	4.50	5.45	5.80	7.85	9.10	10.7	13.7	15.8
	BTU / h		8,400	10,600	14,000	15,400	18,600	19,800	26,800	31,100	36,500	46,800	53,900
Input power	W		28		52		50	117	129	142	175	190	219
Current	A		0.13		0.23		0.22	0.76	0.80	0.84	0.92	0.94	0.95
Maximum current	A		0.15		0.27		0.26	0.91	0.96	1.00	1.10	1.12	1.14
Heat exchanger			Plate fin coil										
Air circulation	High	m ³ / h	530		580		640	1,030	1,170	1,270	1,500	1,650	1,780
	Med		480		520		540	850	970	1,070	1,300	1,450	1,550
	Low		410		460		470	680	770	880	1,100	1,200	1,300
Fan type x number			Turbo x 1										
Fan motor output		W	9		10		15	42			90		
Noise level (sound pressure)	High	dB(A)	38		41		44	42		45	48	49	52
	Med		35		37		38		40	42	44	47	49
	Low		31		34		35	37	39	41	43	45	45
Air filter			PP honeycomb net (Anti-mold)										
FUJITSU grille color			White (UTG-UDYD-W : Option)					White					
GENERAL grille color			White (UTG-UDGD-W : Option)					White					
Dimensions (H x W x D)	Net	mm	230 x 570 x 570				246 x 830 x 830			296 x 830 x 830			
	Gross		280 x 710 x 750				385 x 1,045 x 1,015			435 x 1,045 x 1,015			
Weight	Net	kg	18				34			40			
	Gross		23				45			53			
Pipe	Diameter	Liquid	Ø 6.35					Ø 9.52			Ø 19.05		
		Gas	Ø 9.52		Ø 12.70		Ø 15.88			Ø 19.05			
Connection method			Flare										
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)			PS / Outer diameter 37mm / Inner diameter 32mm				ABS / Outer diameter 37mm / Inner diameter 32mm						



AU7 / AU9 / AU12
AU14 / AU18



AU20 / AU25 / AU30 **[Slim Type]**
AU36 / AU45 / AU54

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature 27°CDB/19°CWB, and outdoor temperature 35°CDB/(24°CWB).

Heating: Indoor temperature of 20°CDB/(15°CWB), and outdoor temperature 7°CDB/6°CWB.

Voltage: 230 [V]

Indoor unit			Compact Duct					Duct				
Model code			AR7	AR9	AR12	AR14	AR18	AR22	AR25	AR30	AR36	AR45
Model name			ARXA07 LALR	ARXA09 LALR	ARXA12 LALR	ARXA14 LALR	ARXA18 LALR	ARXA22 LALR	ARY25 UFAAR	ARY30 UFAAR	ARY36 UFAAR	ARY45 UFAAR
Power source			220-240V, 50Hz									
Cooling capacity	kW		2.15	2.80	3.50	4.00	5.30	6.00	7.05	8.80	10.5	12.7
	BTU / h		7,300	9,600	11,900	13,700	18,100	21,100	24,100	30,000	36,000	43,500
Heating capacity	kW		2.45	3.10	4.10	4.80	5.60	6.30	7.85	9.10	10.7	13.7
	BTU / h		8,400	10,600	14,000	16,400	19,100	21,500	26,800	31,000	36,500	47,000
Input power			W		32		49		77		155	
Current			A		0.20		0.24		0.36		0.68	
Maximum current			A		0.24		0.29		0.40		0.84	
Heat exchanger			Plate fin coil									
Air circulation	High	m³ / h	420		620		890		1,200		2,200	
	Med		390		550		840		1,100		2,000	
	Low		360		470		780		1,000		1,800	
Recommend static pressure			Pa		0 to 40				30 to 160		30 to 180	
Fan type x number			Sirocco x 1				Sirocco x 2					
Fan motor output			W		10		14		36		77	
Noise level (sound pressure)	High	dB (A)	34		33		42		44		49	
	Med		32		29		41		42		47	
	Low		31		27		38		40		45	
Air filter			PP monofilament net (Antibacterial / Deodorization)					Filter : UTD-LF270 (Option) PP honeycomb net, Fungicide Type				
Dimensions (H x W x D)	Net	mm	217 x 663 x 595			217 x 953 x 595			270 x 1,210 x 700			
	Gross		324 x 785 x 686			324 x 1,075 x 686			300 x 1,300 x 790			
Weight	Net	kg	18		25		43		45			
	Gross		22		29		53		55			
Pipe size	Diameter	Liquid	Ø6.35				Ø9.52					
		Gas	Ø9.52		Ø12.70		Ø15.88		Ø19.05			
Connection method			Flare									
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)			ABS/Outer diameter 26mm / Inner diameter 21.5mm					Steel/Outer diameter 38.1mm / Inner diameter 35.7mm				



AR7 / AR9



AR12 / AR14
AR18 / AR22



AR25 / AR30
AR36 / AR45

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature 27°CDB/19°CWB, and outdoor temperature 35°CDB/(24°CWB).

Heating: Indoor temperature of 20°CDB/(15°CWB), and outdoor temperature 7°CDB/6°CWB.

Standard static pressure: 0Pa (AR7 to AR22), 100Pa (AR25 to AR45).

Voltage: 230 [V]

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

Indoor unit			Compact Wall Mounted				Wall Mounted				
Model code			AS7	AS9	AS12	AS14	AS18	AS24	AS30		
Model name			AS*7 UFADR	AS*9 UFADR	AS*12 UFADR	AS*14 UFADR	AS*18 UFAJR	AS*24 UFAJR	AS*30 UFAJR		
Power source			220-240V, 50Hz								
Cooling capacity	kW		2.15	2.80	3.50	3.80	5.40	6.90	8.00		
	BTU / h		7,400	9,600	11,900	13,000	18,400	23,600	27,300		
Heating capacity	kW		2.45	3.10	4.10	4.50	5.60	7.80	8.80		
	BTU / h		8,400	10,600	14,000	15,400	19,100	26,600	30,000		
Input power			W		26		33		40		
Current			A		0.15		0.17		0.21		
Maximum current			A		0.18		0.21		0.24		
Heat exchanger			Plate fin coil								
Air circulation	High	m³ / h	410		500		540		840		
	Med		370		450		510		700		
	Low		350		410		480		600		
Fan type x number			Cross flow x 1								
Fan motor output			W		13				38		
Noise level (sound pressure)	High	dB (A)	30		36		39		42		
	Med		27		33		37		39		
	Low		26		30		34		35		
Air filter			PP honeycomb (Antibacterial and Mold proofing)				PP monofilament net (Deodorization, Anti-mold)				
Casing color			White								
Dimensions (H x W x D)	Net	mm	257 x 808 x 187				320 x 1,120 x 220				
	Gross		270 x 850 x 310				348 x 1,240 x 427				
Weight	Net	kg	8				16				
	Gross		10				22				
Pipe	Diameter	Liquid	Ø6.35						Ø9.52		
		Gas	Ø9.52		Ø12.70		Ø15.88				
Connection method			Flare								
Drain pipe material / Outer dia. (mm) / Inner dia. (mm)			With 620mm drain hose, PVC / Outer diameter 16.2-17mm / Inner diameter 12mm				With 670mm drain hose, PVC / Outer diameter 24mm / Inner diameter 17mm				



AS7 / AS9 / AS12
AS14



AS18 / AS24 / AS30

Note: Specifications are based on the following conditions.

Cooling: Indoor temperature 27°CDB/19°CWB, and outdoor temperature 35°CDB/(24°CWB).

Heating: Indoor temperature of 20°CDB/(15°CWB), and outdoor temperature 7°CDB/6°CWB.

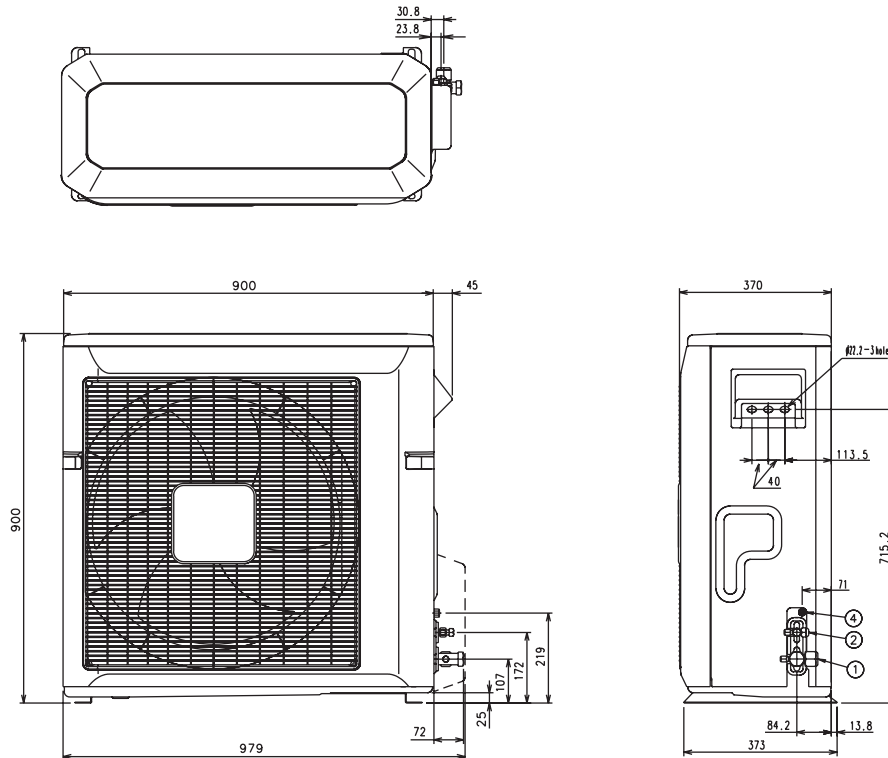
Voltage: 230 [V]

Dimensions

Outdoor unit

(Unit : mm)

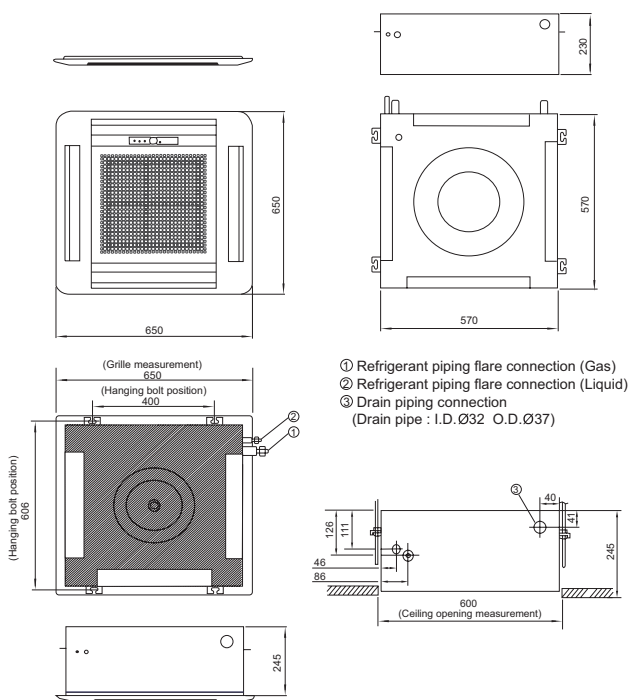
Models: AO54U / AO54F



Indoor unit Compact Cassette

(Unit : mm)

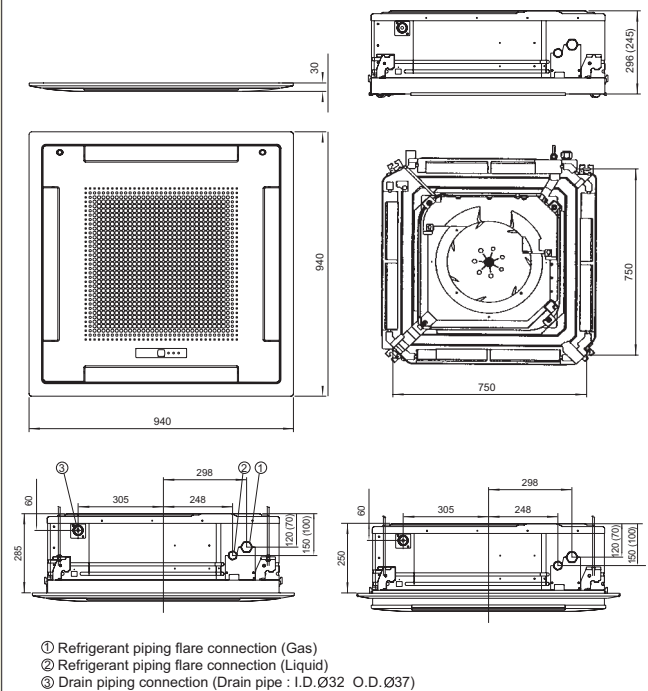
Models: AU7 / AU9 / AU12 / AU14 / AU18



Indoor unit Cassette

(Unit : mm)

Models: AU20 / AU25 / AU30 (Slim type)
AU36 / AU45 / AU54

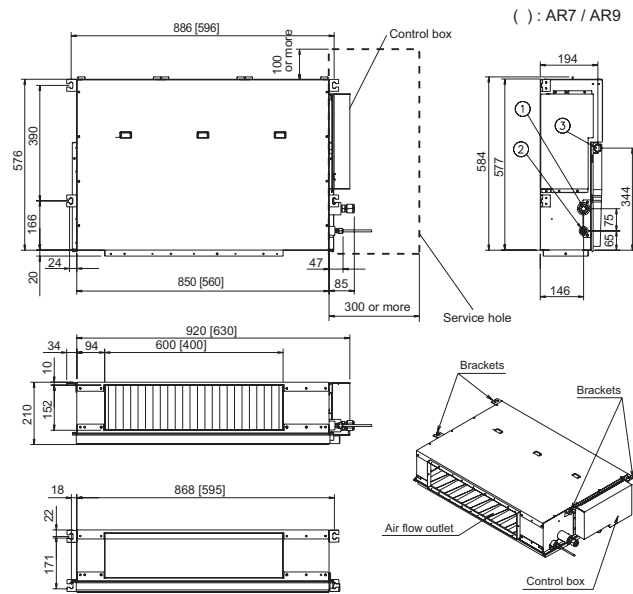


() : AU20 / AU25 / AU30

Indoor unit Compact Duct (Unit : mm)

Models: AR7 / AR9 / AR12 / AR14 / AR18 / AR22

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

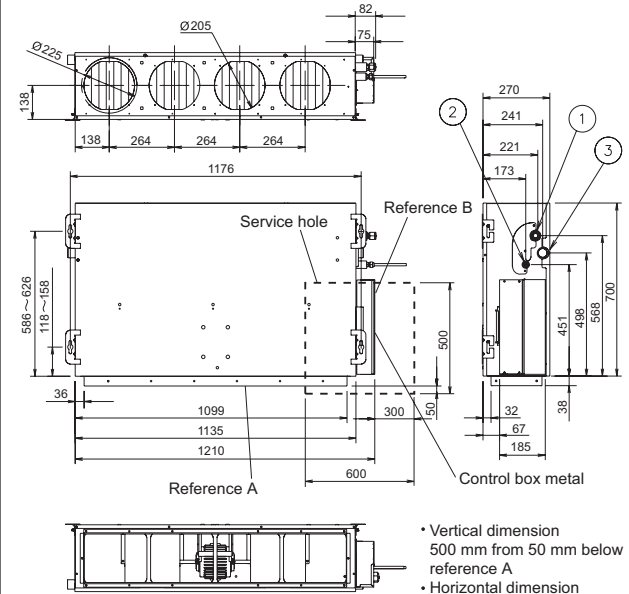


- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection (Drain pipe : I.D. Ø21.5 O.D. Ø26.0)

Indoor unit Duct (Unit : mm)

Models: AR25 / AR30 / AR36 / AR45

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

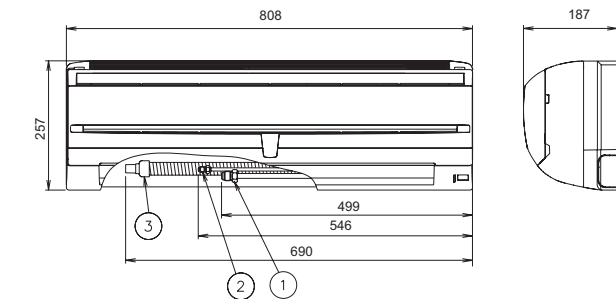


- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection (Drain pipe : I.D. Ø35.7 O.D. Ø38.1)

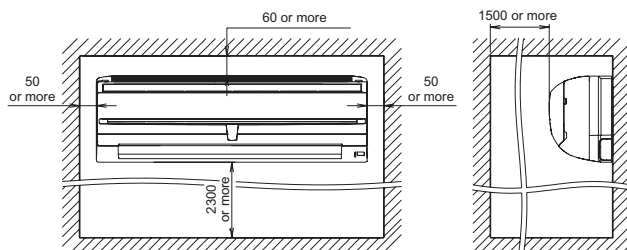
• Vertical dimension
500 mm from 50 mm below
reference A
• Horizontal dimension
600 mm from 300 mm from
the left from reference B

Indoor unit Compact Wall Mounted (Unit : mm)

Models: AS7 / AS9 / AS12 / AS14

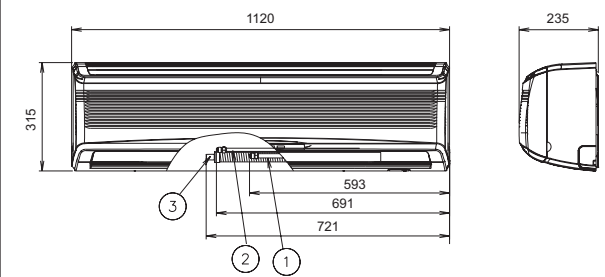


- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection
(Drain hose : I.D. Ø12 O.D. Ø16.2-17 L 620)

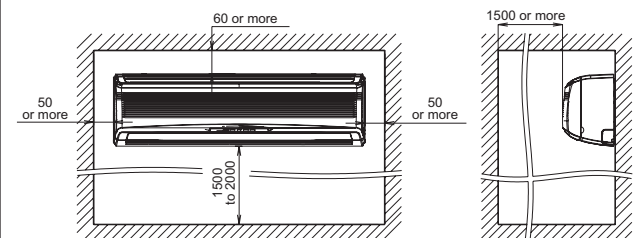


Indoor unit Wall Mounted (Unit : mm)

Models: AS18 / AS24 / AS30



- ① Refrigerant piping flare connection (Gas)
- ② Refrigerant piping flare connection (Liquid)
- ③ Drain piping connection
(Drain hose : I.D. Ø17 O.D. Ø24 L 670)



Accessories

Wireless Remote Controller

- Supplied with each indoor unit



IR Receiver Unit

- IR receiver unit is connected for each duct type indoor unit.



Optional Parts

Group Remote Controller

UTB-YDB / UTB-GDB

- Up to 8 indoor units can be controlled by a single controller.
- When air conditioner ON/OFF and temperature setting are preset automatically by using a weekly timer, operation can be started and stopped automatically.



Network Converter

UTR-YGCA

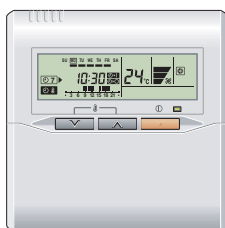
- Network converter is required to connect Group Remote Controller to an VRF system.



Wired Remote Controller

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

- Wired remote controller capable of controlling each indoor unit individually.
- Can be used together with wireless remote controller.



Simple Remote Controller

**UTB-YPB / UTB-GPB
UTB-TPB**

- Concentrates on basic operations such as On/Off, Fan Control, Master Control and Temperature Setting.



Simple Remote Controller

**UTB-YRA / UTB-GRA
UTB-TRA**

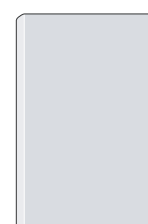
- Concentrates on basic operations such as On/Off, Fan Control and Temperature Setting.



External Switch Controller

UTR-YESA

- Switching of the air conditioner can be controlled by connecting other sensor switches.



Optional Parts

EV kit

UTR-EV2AXL
UTR-EV3XL

- EV kit is available for installation as necessary.

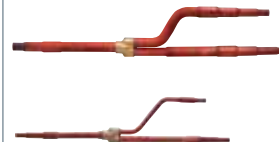
Model code < 30 : UTR-EV2AXL
Model code ≥ 30 : UTR-EV3XL



Separation tube

UTR-BP54U

- Separation tubes are available for installation as necessary.



Grille kit

UTG-UDYD-W
UTG-UDGD-W

- Grille for compact cassette type indoor unit.



Header

UTR-HD546U

- Headers are available for installation as necessary.



Remote sensor unit

UTD-RS100

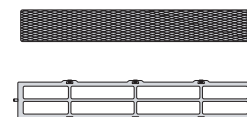
- Thermo sensor for sensing the temperature of an arbitrary place in the room



Air clean filter

UTR-FA08

- For wall mounted type
- Air clean filter assembly for initial setting.



Flange (Square)

UTD-SF045T

- For duct type
205 x 1,063, L=40 (mm)



Air clean filter

UTR-FB03

- Replacement filter for UTR-FA08



Flange (Round)

UTD-RF204

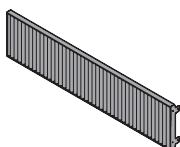
- For duct type
Ø195 (Ø205), L=85 (mm)



Long-life filter

UTD-LF270

- For duct type



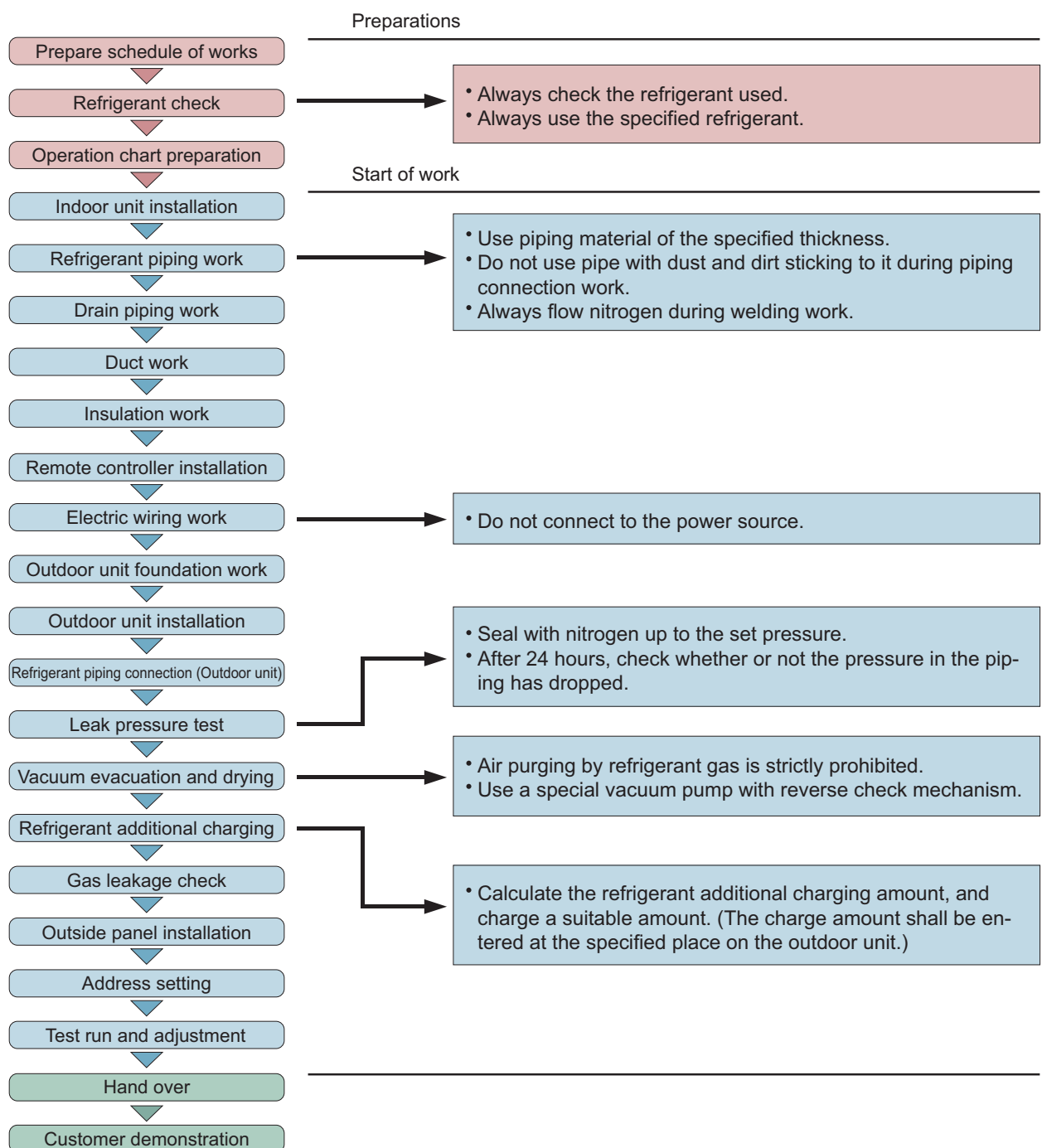
R410A Work Notes

R410A

The working pressure of R410A is approximately 1.6 times higher than that of R22.
As the oil type is also different, be sure not to mix them.

Refrigerant	R410A	R407C	R22
Oil	POE oil	POE oil	Mineral oil
Pressure ratio	Approx. 1.6	Approx. 1.1	1

Work flow



Piping material

- Use the correct refrigerant piping and materials for R410A.
- For the pipe wall thickness, see the table below.

Copper pipe outside diameter(Ø)	Ø6.35	Ø9.52	Ø12.70	Ø15.88	Ø19.05
Material	Copper JIS H3300 C1220T-O or equivalent ¹⁾				
Copper pipe ²⁾ wall thickness (mm)	0.8	0.8	0.8	1.0	1.2

Note: Always observe and follow the necessary local regulations when installing refrigerant piping.

1) Allowable tensile stress ≥ 33 (N/mm²); 2) Design pressure 4.2MPa.

Tools

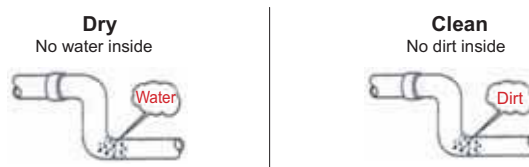
- R410A work requires a number of special tools (* symbol).
- Since tools used in R22 work cannot be used, provide the tools separately.

Tool name	Process and application	
Pipe cutter	Pipe cutting	Refrigerant piping work
* Flaring tool	Pipe flaring work	
* Torque wrench (1/2, 5/8)	Flare nut connection	
Expander	Expansion at pipe connection	
Pipe bender	Pipe bending work	
Nitrogen gas	Pipe interior oxidation prevention	Air tightness test
Welder	Pipe brazing	
* Gauge manifold	Vacuum evacuation and refrigerant charging operation check	Air tightness test ~ Refrigerant additional charging
* Charging hose		
* Vacuum pump(with adaptor)		Vacuum drying
Electronic scale for refrigerant charging		Refrigerant additional charging
Gas leak tester	Gas leakage test	

Work precautions

Refrigerant check Before work, check the refrigerant used and prepare materials matched to the refrigerant.

Refrigerant piping work Observe the basics (dry, clean) of refrigerant piping and carry out work so that problems will not occur. Moreover, when performing welding work, seal in nitrogen gas and perform work so that an oxide film is not produced.



Leak pressure test Conduct a pressure test sufficiently and make sure there is no refrigerant leakage.

Vacuum drying If the vacuum pump does not have a reverse flow check mechanism, use the pump together with a reverse flow check adapter.

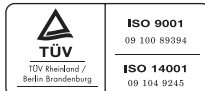
Additional refrigerant Charge only the amount of R410A refrigerant calculated in the additional refrigerant charge calculation. This refrigerant should only be charged in a liquid form.



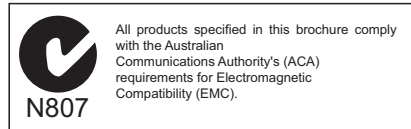
ISO 9001
Certified number: 09 100 79269



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Certified number: 104692
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ISO 9001
Certified number: 09 100 89394
Fujitsu General (Thailand) Co., Ltd.



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