



1. GENERAL INFORMATION

CONTENTS

1. GENERAL INFORMATION

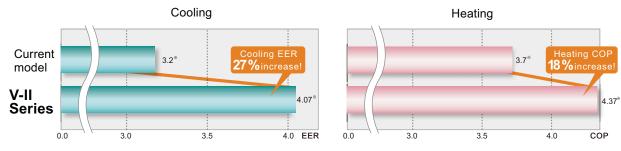
1-1. FEATURES OF SYSTEM	01-01
1-1-1. HIGH EFFICIENCY OPERATION	01-01
1-1-2. HIGH DESIGN FREEDOM	01-03
1-1-3. HIGH RELIABILITY	01-05
1-1-4. EASY INSTALLATION	01-07
1-1-5. MORE COMFORT & CONVENIENCE	01-09
1-1-6. EASY SERVICE & MAINTENANCE	01-11
1-2. MODEL LINE UP	01-13
1-2-1. OUTDOOR UNIT	01-13
1-2-2. INDOOR UNIT	01-15
1-2-3. CONTROLLER	01-17
1-2-4. ADAPTOR / CONVERTOR / MAINTENANCE	01-18
1-2-5. OUTDOOR UNIT BRANCH KIT	01-19
1-2-6. SEPARATION TUBE	01-19
1-2-7. HEADER	01-20
1-2-8. EV KIT	01-21
1-2-9. CASSETTE GRILLE	01-21
1-2-10.OTHERS (optional parts)	01-22
1-3 PEVISION CODE	01-24

1-1. FEATURES OF SYSTEM

1-1-1. HIGH EFFICIENCY OPERATION

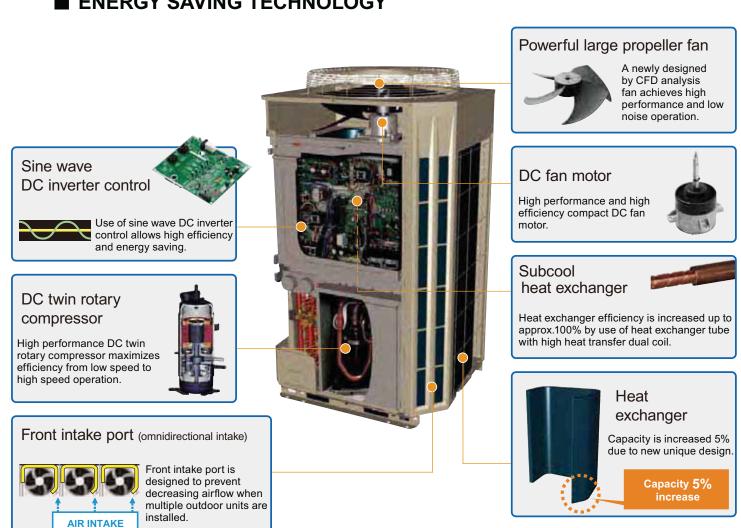
■ SIGNIFICANTLY IMPROVED EER/COP

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

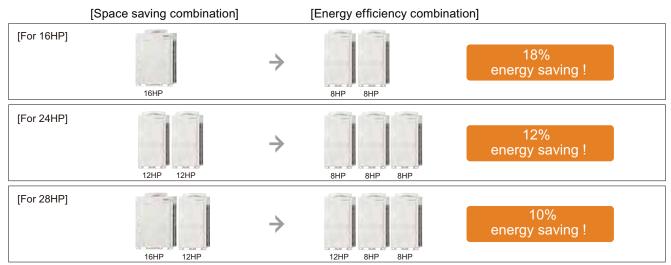


- *The data refers to a 8HP outdoor unit.
- *"EER" and "COP" is the coefficient of performance [= capacity (kW) input power (kW)].
- *EER and COP values are base on our own testing method.

■ ENERGY SAVING TECHNOLOGY



ENERGY EFFICIENCY COMBINATION

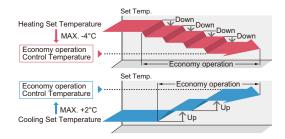


(Comparison of average COP)

■ ECONOMY OPERATION

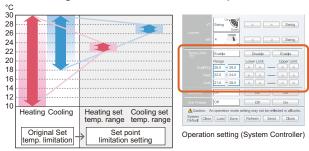
Economy operation can be set by remote controller.

The temperature setting is offset automatically over a certain period of time.



■ ROOM TEMPERATURE SET **POINT LIMITATION**

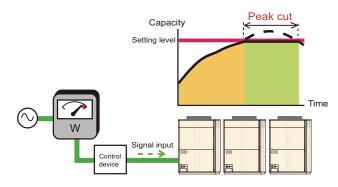
The minimum and maximum temperature range can be set giving further energy saving while considering the comfort of the occupants.



■ PEAK CUT OPERATION

Operation capacity can be set in 4 steps for rated capability.

The power consumption at peak is cut down and the maximum load is suppressed.



■ AUTO-OFF TIMER

Each remote controller is equipped with an OFF timer function that automatically stops operation when a fixed time has elapsed from the start of operation. This prevents wasteful operation. (NB Except simple remote controller)

1-1-2. HIGH DESIGN FREEDOM

■ OVERALL PIPING LENGTH 1,000m

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

> Height difference between outdoor and indoor units

For the outdoor unit stated

50m max. below : 40m max. Actual pipe length 150m max.

> Pipe length from first separation tube to the farthest indoor unit

between indoor and indoor units 60m max.

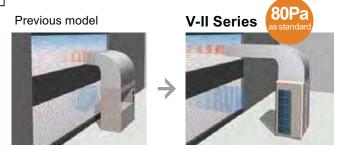
Height difference

15m max.

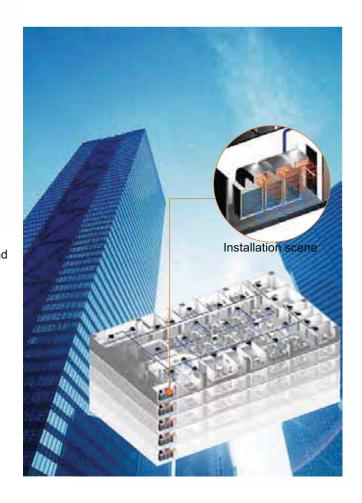
■ HIGH STATIC PRESSURE OF 80Pa

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

Powerful discharge with an external static pressure of 80Pa.

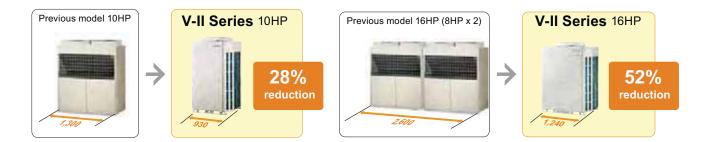


Large diameter fan and DC motor has been utilized allowing an external static pressure of 80Pa. This is approximately 2.6 times greater than the previous model.

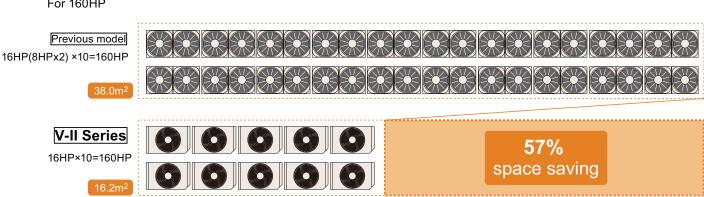


■ SPACE SAVING AND COMPACT SIZE

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



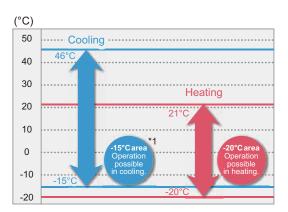
For 160HP



■ WIDE OPERATING RANGE

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

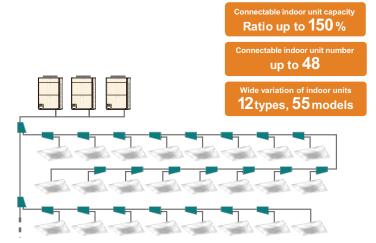
Cooling: -15°C~46°C Heating: -20°C~21°C



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

■ VARIOUS COMBINATIONS

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

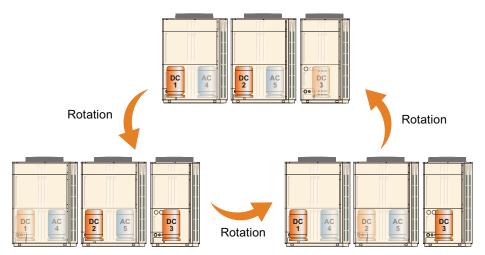


Note: when indoor unit connected capacity is greater than 100%, individual indoor units will operate at a slightly lower capacity when maximum capacity is required.

1-1-3. HIGH RELIABILITY

■ OUTDOOR UNIT OPERATION ROTATION

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

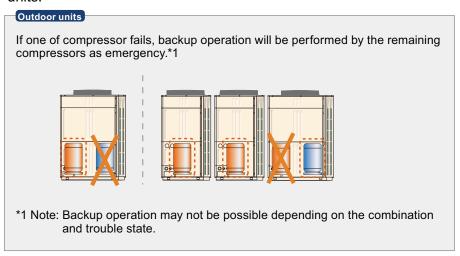


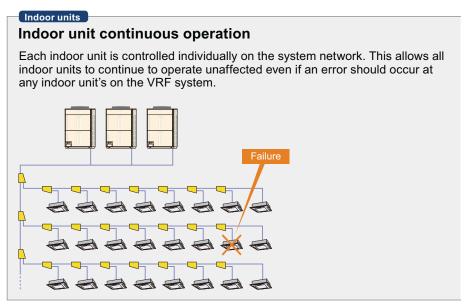
Note: The inverter compressors start in priority.

Operating rotation is alternated by the start / stop timing of the compressors

■ BACKUP OPERATION

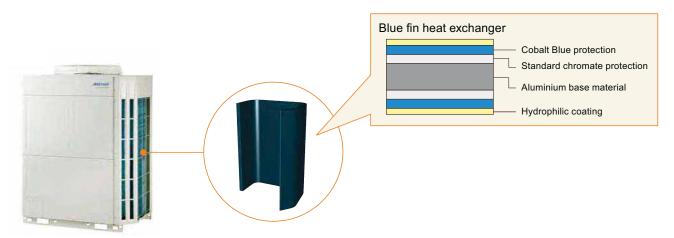
If one of two compressors malfunctions, it will not affect the operation of the remaining outdoor units.





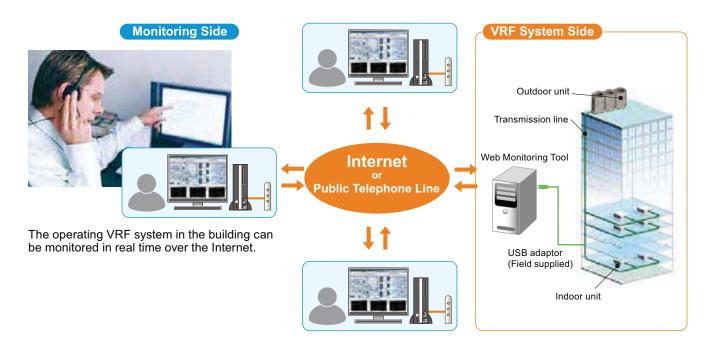
ADOPTION OF BLUE FIN HEAT EXCHANGER

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

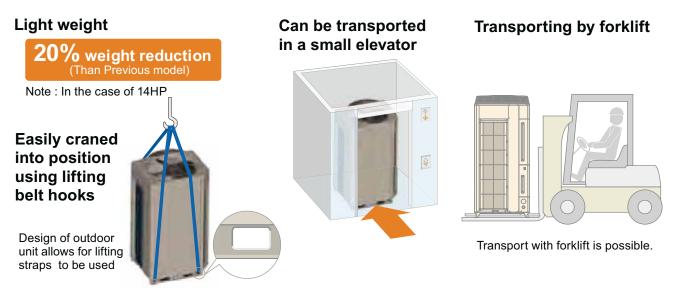


■ REMOTE MONITORING

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

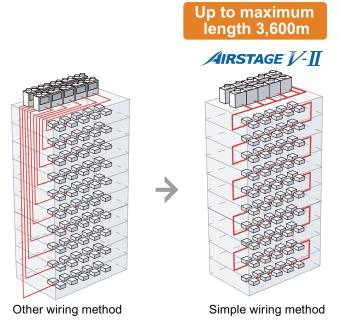


■ EASILY TRANSPORTED



■ SIMPLE SIGNAL LINE CONNECTION

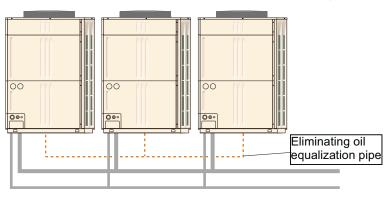
Installation is made easier as the communications wiring can be connected continuously to any component.



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

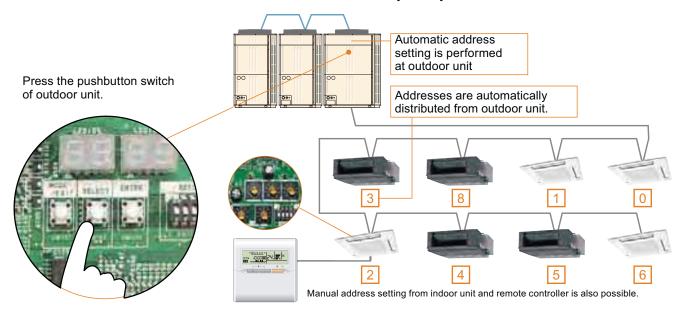
■ Easy piping connection

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



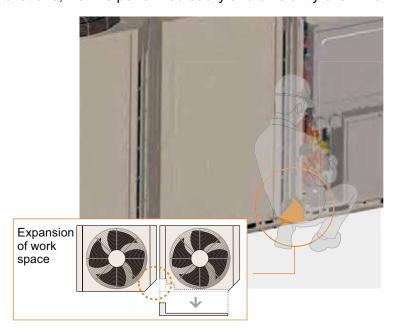
■ AUTOMATIC ADDRESS SETTING

The address of each indoor unit can be automatically set by button swich of outdoor unit.



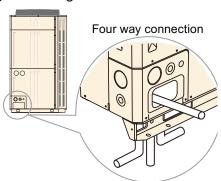
■ EASY ACCESS

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



■ FOUR WAY PIPING CONNECTION

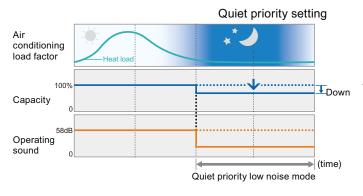
Piping and wiring are available to the front, left and right, and bottom.

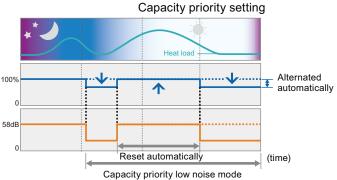


1-1-5. MORE COMFORT & CONVENIENCE

■ LOW NOISE MODE

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





■ LOW NOISE DESIGN

Compressor noise has been significantly reduced by shielding the compressor compartment.



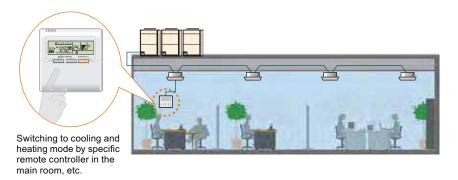
■ INDOOR UNIT

Low noise indoor unit lineup



■ SELECTABLE AUTO CHANGEOVER FUNCTION

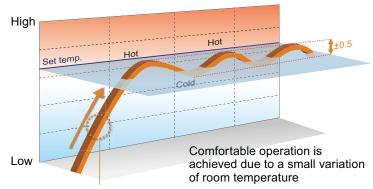
Auto changeover setting allows for the product to easily switch between Cooling and heating modes regardless of the operation mode of other indoor units. This can be done via specific indoor unit with wired remote controller. This ensures comfortable operation all year round.



■ PRECISION REFRIGERANT FLOW CONTROL

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

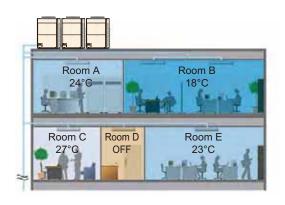
Thermal change of the room *Simulation in heating operation.



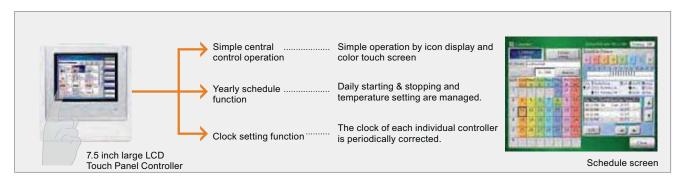
Reach the set temperature quickly

■ INDIVIDUAL AIR CONDITIONING CONTROL

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

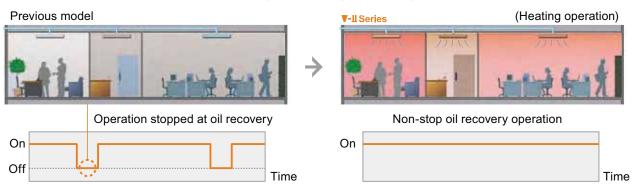


■ SIMPLE CENTRAL MANAGEMENT FUNCTION



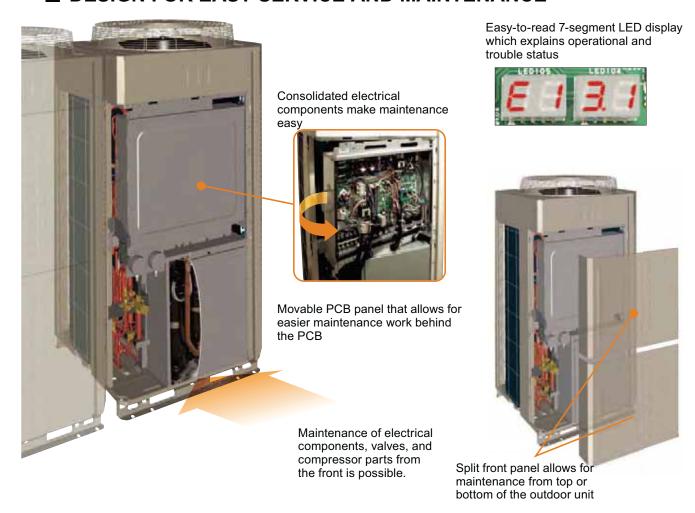
■ NON-STOP OIL RECOVERY OPERATION

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

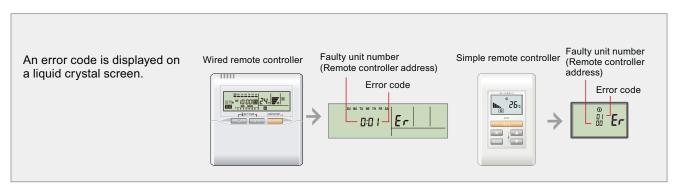


1-1-6. EASY SERVICE & MAINTENANCE

■ DESIGN FOR EASY SERVICE AND MAINTENANCE

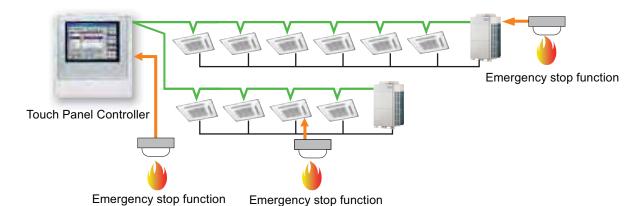


■ ERROR STATUS CAN BE CHECKED EASILY VIA THE INDOOR UNIT WIRED CONTROLLER



■ EMERGENCY STOP

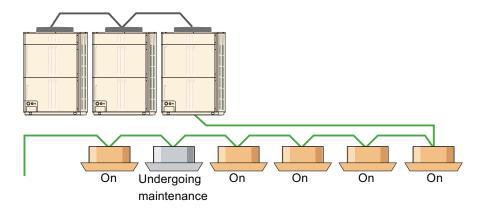
Emergency alarm can be received by indoor, outdoor units or Touch Panel Controller when they received it, all units will be stopped.



Note: In case of received Emergency alarm by Indoor/outdoor unit: All units connected within same refrigerant system will be stopped. Touch Panel Controller: all unit connected within VRF network system with Touch Panel Controller will be stopped.

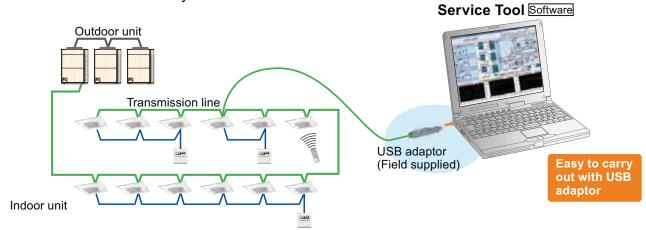
NON-STOP OPERATION

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



■ TROUBLE DIAGNOSIS BY SERVICE TOOL

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



1-2. MODEL LINE UP

1-2-1. OUTDOOR UNIT

- Extensive line up from 8HP to 48HP in 2HP increments.
- Space saving combination and Energy efficiency combination available, which can be selected to suit any air conditioning needs.

■ LINE UP (SINGLE)

HP	Capacity (kW)	Model name	Chassis
8	22.4	AJ*A72LALH	可加
10	28.0	AJ*A90LALH	
12	33.5	AJ*108LALH	The Late
14	40.0	AJ*126LALH	
16	45.0	AJ*144LALH	

■ SPACE SAVING COMBINATION

• Combinations other than the followings are prohibited.

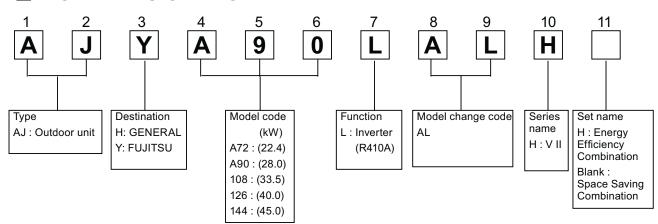
HP	Capacity (kW)	Set model name	Unit1 (Model name)	Unit2 (Model name)	Unit3 (Model name)	Maximum connectable indoor unit
8	22.4	AJ*A72LALH	AJ*A72LALH	-	-	15
10	28.0	AJ*A90LALH	AJ*A90LALH	-	1	16
12	33.5	AJ*108LALH	AJ*108LALH	-	-	17
14	40.0	AJ*126LALH	AJ*126LALH	-	-	21
16	45.0	AJ*144LALH	AJ*144LALH	-	-	24
18	50.4	AJ*162LALH	AJ*A90LALH	AJ*A72LALH	-	32
20	55.9	AJ*180LALH	AJ*108LALH	AJ*A72LALH	-	32
22	61.5	AJ*198LALH	AJ*108LALH	AJ*A90LALH	-	32
24	67.0	AJ*216LALH	AJ*108LALH	AJ*108LALH	-	35
26	73.5	AJ*234LALH	AJ*126LALH	AJ*108LALH	-	39
28	78.5	AJ*252LALH	AJ*144LALH	AJ*108LALH	-	42
30	85.0	AJ*270LALH	AJ*144LALH	AJ*126LALH	-	45
32	90.0	AJ*288LALH	AJ*144LALH	AJ*144LALH	-	48
34	95.0	AJ*306LALH	AJ*108LALH	AJ*108LALH	AJ*A90LALH	48
36	100.5	AJ*324LALH	AJ*108LALH	AJ*108LALH	AJ*108LALH	48
38	107.0	AJ*342LALH	AJ*126LALH	AJ*108LALH	AJ*108LALH	48
40	112.0	AJ*360LALH	AJ*144LALH	AJ*108LALH	AJ*108LALH	48
42	118.5	AJ*378LALH	AJ*144LALH	AJ*126LALH	AJ*108LALH	48
44	123.5	AJ*396LALH	AJ*144LALH	AJ*144LALH	AJ*108LALH	48
46	130.0	AJ*414LALH	AJ*144LALH	AJ*144LALH	AJ*126LALH	48
48	135.0	AJ*432LALH	AJ*144LALH	AJ*144LALH	AJ*144LALH	48

■ ENERGY EFFICIENCY COMBINATION

• Combinations other than the followings are prohibited.

HP	Capacity (kW)	Set model name	Unit1 (Model name)	Unit2 (Model name)	Unit3 (Model name)	Maximum connectable indoor unit
16	44.8	AJ*144LALHH	AJ*A72LALH	AJ*A72LALH	-	30
22	62.4	AJ*198LALHH	AJ*126LALH	AJ*A72LALH	-	33
24	67.2	AJ*216LALHH	AJ*A72LALH	AJ ≭ A72LALH	AJ ≭ A72LALH	36
26	72.8	AJ*234LALHH	AJ*A90LALH	AJ*A72LALH	AJ ≭ A72LALH	39
28	78.3	AJ*252LALHH	AJ*108LALH	AJ*A72LALH	AJ*A72LALH	42
30	84.8	AJ*270LALHH	AJ*126LALH	AJ*A72LALH	AJ ≭ A72LALH	45
32	89.4	AJ ∗ 288LALHH	AJ*108LALH	AJ*108LALH	AJ*A72LALH	48
34	95.9	AJ*306LALHH	AJ*126LALH	AJ*108LALH	AJ*A72LALH	48
36	102.4	AJ*324LALHH	AJ*126LALH	AJ*126LALH	AJ*A72LALH	48
40	113.5	AJ*360LALHH	AJ*126LALH	AJ*126LALH	AJ*108LALH	48
42	120.0	AJ*378LALHH	AJ*126LALH	AJ*126LALH	AJ*126LALH	48
44	125.0	AJ ∗ 396LALHH	AJ*144LALH	AJ*126LALH	AJ*126LALH	48

■ MODEL DESIGNATION



1-2-2. INDOOR UNIT ■ LINE UP (1/2)

Various combinations of types and capacity 12 types 55 models, ranging from 2.2kW to 25.0kW.

Car	oacity	Compact	.	Compact	.	Low Static	
kW	Model code	Cassette	Cassette	Duct	Slim Duct	Pressure Duct	Duct
2.2	07	•		•	•		
2.8	09	•		•	•		
3.6	12	•		•	•		
4.5	14	•		•	•		
5.6	18	•	•	•	•		
7.1	24	•	•		•	•	•
9.0	30		•			•	•
11.2	36		•			•	•
12.5	45		•			•	•
14.0	54		•				
18.0	60						
22.4	72						
25.0	90						

Compact Cassette	Cassette	Compact Duct
AUXB07LALH	AUXD18LALH	ARXB07LALH
AUXB09LALH	AUXD24LALH	ARXB09LALH
AUXB12LALH	AUXA30LALH	
AUXB14LALH	AUXA36LALH	ARXB12LALH
AUXB18LALH	AUXA45LALH	ARXB14LALH
AUXB24LALH	AUXA54LALH	ARXB18LALH

SI	Slim Duct		Low Static Pressure Duct		Duct	
ARXD07LATH						
ARXD09LATH	The second second	ARXB24LATH		ARXA24LATH		
ARXD12LATH		ARXB30LATH		ARXA30LATH		
ARXD14LATH		ARXB36LATH	THE RESIDENCE OF	ARXA36LATH	The second of the second of	
	-	ARXB45LATH		ARXA45LATH		
ARXD18LATH						
ARXD24LATH						
	1					

■ LINE UP (2/2)

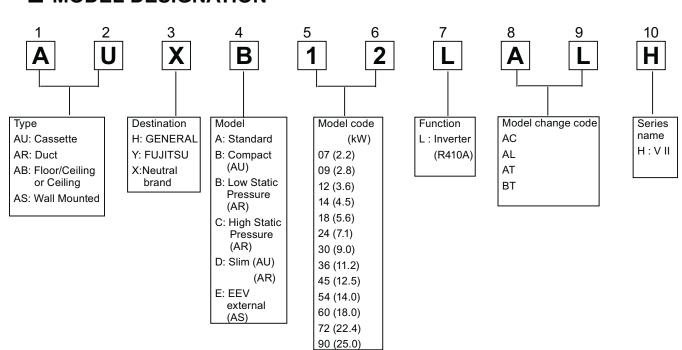
Various combinations of types and capacity 12 types 55 models, ranging from 2.2kW to 25.0kW.

Cap	oacity	High Static	FI	0 '''	Compact	Compact	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
kW	Model code	Pressure Duct	Floor / Ceiling	Ceiling	Wall Mounted (EEV internal)	(EEV external)	Wall Mounted
2.2	07				•	•	
2.8	09				•	•	
3.6	12		•		•	•	
4.5	14		•		•	•	
5.6	18		•				•
7.1	24		•				•
9.0	30			•			•
11.2	36	•		•			
12.5	45	•		•			
14.0	54			•			
18.0	60	•					
22.4	72	•					
25.0	90	•					

High Static	Pressure Duct	Floor / Ceiling	Ceiling
ARXC36LATH			
ARXC45LATH		AB ∗ A12LBTH	AB*A30LBTH
ARXC60LATH		AB*A14LBTH	AB*A36LBTH
		AB*A18LBTH	AB*A45LBTH
ARXC72LATH	100 mm	AB*A24LBTH	AB*A54LBTH
ARXC90LATH			

Compact Wall Mounted (EEV internal)	Compact Wall Mounted (EEV external)	Wall Mounted
AS*A07LACH AS*A09LACH AS*A12LACH AS*A14LACH	AS*E07LACH AS*E09LACH AS*E12LACH AS*E14LACH	AS*A18LACH AS*A24LACH AS*A30LACH

■ MODEL DESIGNATION



1-2-3. CONTROLLER

■ LINE UP

Туре	Model
System Controller	UTY-APGX
Touch Panel Controller	UTY-DTG*
Central Remote Controller	UTY-DCG*
Group Remote Controller	UTY-CGG*
Wired Remote Controller	UTY-RNK*
Simple Remote Controller (With operation mode)	UTY-RSK*
Simple Remote Controller (Without operation mode)	UTY-RHK*
Wireless Remote Controller	UTY-LNH*

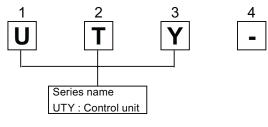
■ CENTRAL CONTROL

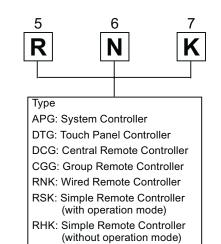
System Controller	Touch Panel Controller	Central Remote Controller	Group Remote Controller
			UTY-CGG*
UTY-APGX	UTY-DTG*	UTY-DCG*	Network Convertor (UTY-VGGXZ1) is necessary to connect Group Remote Controller to VRF network system.

■ INDIVIDUAL CONTROL

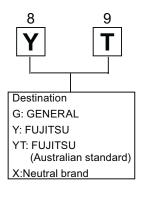
Wired Remote Controller	Simple Rem	ote Controller	Wireless Remote Controller
00000 ********************************	(With operation mode)	(Without operation mode)	
UTY-RNK*	UTY-RSK*	UTY-RHK*	UTY-LNH*

■ MODEL DESIGNATION





LNH: Wireless Remote Controller



1-2-4. ADAPTOR / CONVERTOR / MAINTENANCE

Network Convertor

Model: UTY-VGGXZ1



Split type systems can be controlled from a central controller via the convertor.

Group remote controller can be controlled up to 96 indoor units via the convertor.

Network Convertor for LonWorks®

Model: UTY-VLGX



For connection between VRF network system and a LonWorks® open network for management of small to medium-sized BMS.

BACnet® Gateway

Model: UTY-ABGX



The central control of maximum 1600 indoor units can be realized by connecting the VRF network system to the BACnet®, a global standard of the open network.

Signal Amplifier

Model: UTY-VSGX



If the total length of transmission line exceeds 500m, or the number of units exceeds 64, Signal Amplifier will be necessary to use.

External Switch Controller

Model: UTY-TEKX



Air conditioner switching can be controlled by connecting other external sensor switches.

Service Tool

Model: UTY-ASGX



Extensive monitoring and analysis functions for installation and maintenance. Operation status and error history can be grasped promptly and adequately.

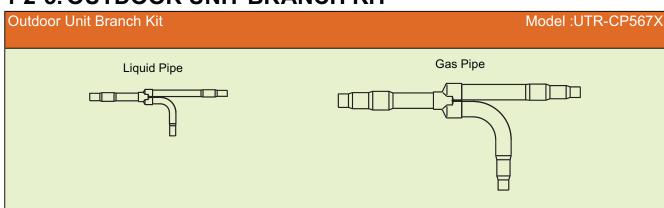
Web Monitoring Tool

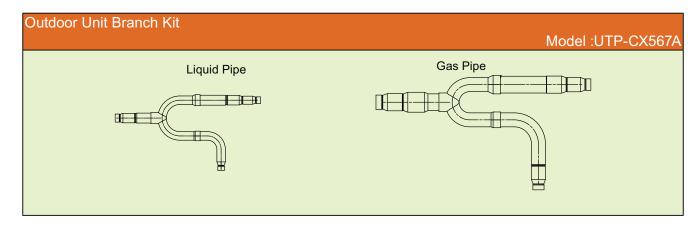
Model: UTY-AMGX



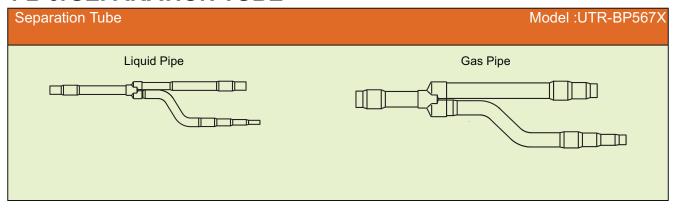
Trouble free operation at all times by web monitoring system. The operation status of the VRF network system within the building can be monitored in real time over the Internet.

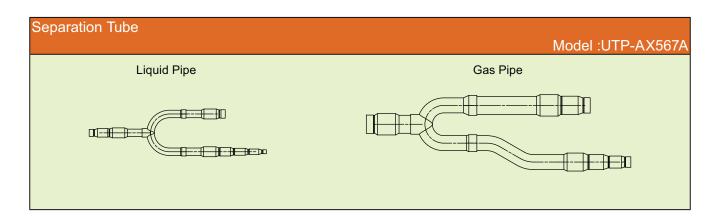
1-2-5. OUTDOOR UNIT BRANCH KIT

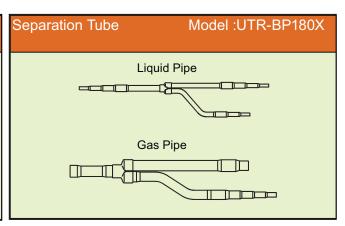


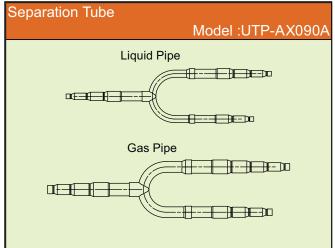


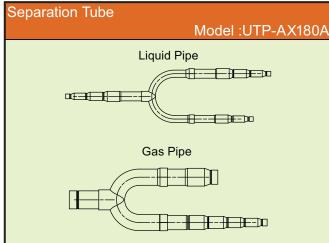
1-2-6. SEPARATION TUBE







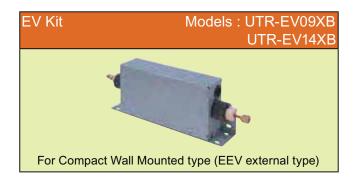




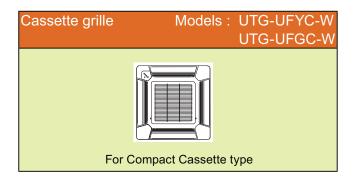
1-2-7. HEADER

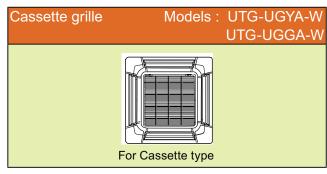
Header						
Model: UTR-H0906L	Model: UTR-H1806L	Model: UTR-H0908L	Model: UTR-H1808L			
Liquid Pipe	Liquid Pipe	Liquid Pipe	Liquid Pipe			
Gas Pipe	Gas Pipe	Gas Pipe	Gas Pipe			

1-2-8. EV KIT

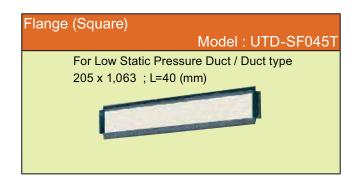


1-2-9. CASSETTE GRILLE

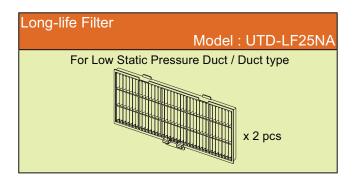


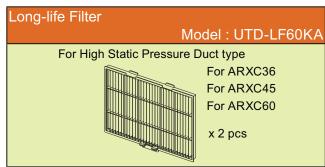


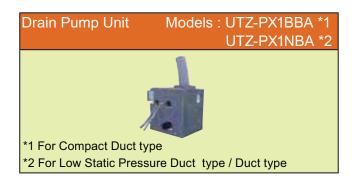
1-2-10. OTHERS (optional parts)

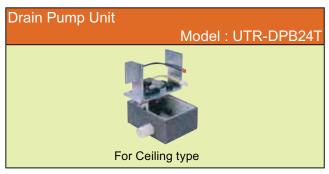


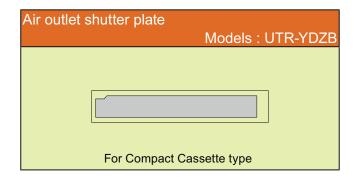


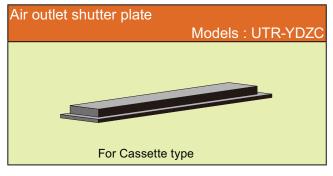




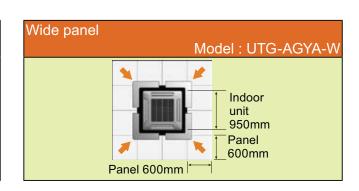


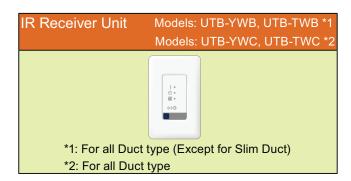




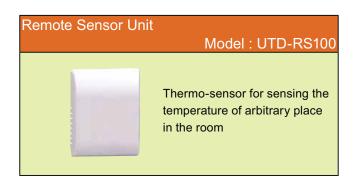


Panel spacer



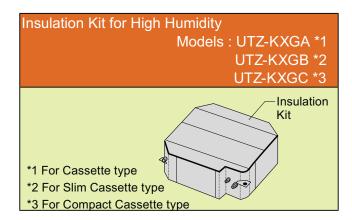














1-3. REVISION CODE

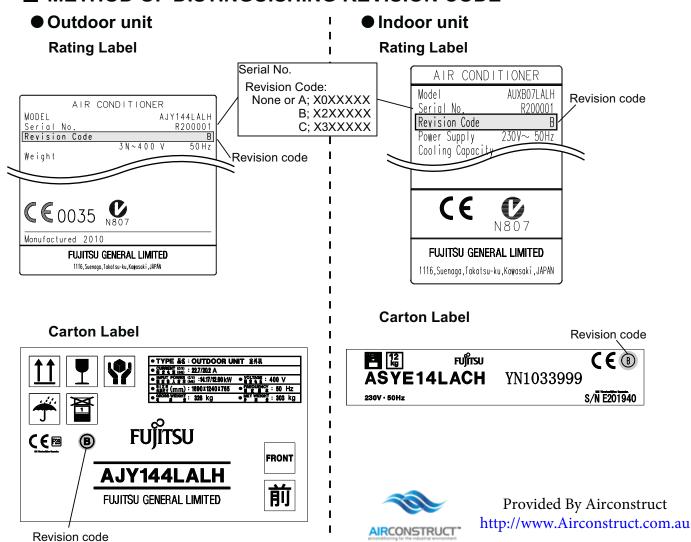
■ ABOUT REVISION CODE

The following functions are different according to Revision code.

	Revision code		Domanica	
		None or A	B/C	Remarks
	Energy-saving level Level 5 (Limited at 100%)	×	0	
or uni	Back up operation	×	0	
Outdoor unit	Electricity meter installation	×	0	Electricity meter can be set up in Terminal CN135.
	Energy saving software UTY-PEGX	×	0	
ıjt	Forced stop function	×*1	0	
oopul	Energy saving software UTY-PEGX	×	0	
	Setting of Auto louver grille kit (option)	×*2	0	For Slim duct type only

^{*1:} ARXD07, 09, 12, 14, 18, 24LATH (Slim Duct), AB*A12, 14, 18, 24LBTH (Floor/Ceiling), AB*A30, 36, 45, 54LBTH (Ceiling), AS*A18, 24, 30LACH (Wall Mounted) are available regardless of revision code.

■ METHOD OF DISTINGUISHING REVISION CODE



^{*2:} Auto louver grille kit doesn't operate correctly when setting it to indoor unit other than Revision code B.