## **∂**GENER∩L





for Saudi Arabia

FUJITSU GENERAL LIMITED

# CREATION OF COMFORT

The AIRSTAGE<sup>™</sup> series provides high energy savings, comfort, and reliability to the end user. The design, installation, and servicing were developed based on the concepts of high flexibility and simplicity. We offer an abundant VRF system lineup to match regional and customer needs by providing the best combination from low to high capacities and from giving priority to conserving installation space to giving priority to high efficiency.

## For **LARGE** BUILDING



Heat Pump Modular type for heating or cooling operation



8 HP - 48 HP 32 Models • Space saving combination: 8 HP to 48 HP/21 models • Energy efficiency combination: 20 HP to 42 HP/11 models

P30~

## For **SMALL** BUILDING



Heat Pump type for heating or cooling operation



4 HP - 6 HP 6 Models • Single phase: 4 HP to 6 HP/3 models • 3 phase: 4 HP to 6 HP/3 models

P42~

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## **OUR SOLUTION FOR ALL PROPERTIES**

Fujitsu General provides the best solutions suitable for properties.







# **2017 NEW PRODUCTS**

#### Small VRF AIRSTAGE<sup>™</sup> J-III TROPICAL series



NEW

**TROPICAL** series

- 36 to 54KBTU class,1-phase & 3-phase 6 models
- Compact Design
- High energy efficiency with All Inverter Technology
- Flexible Design with Total Piping Design of 180m



#### Individual Control

#### Wired Remote Controller (Touch Panel)

- Easy-to-use and highly-functional controllers
- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.



#### **Centralized** Control

#### **Touch Panel Controller**

- Up to 400 indoor units can be controlled
- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Easy maintenance & installation



#### Convertor / Adaptor

#### Various Convertors

• 4 models of hardware and software are put on the market all together.



#### Simple Remote Controller

- Up to 16 indoor units can be controlled
- Simple design to match the stylish interior.
- Large LCD screen & simple operation buttons



#### System Controller Software System Controller Lite Software

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled.\*
- Simple BMS, 3rd party supported by Modbus communication can be controlled.
- \*: System controller lite = Up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units can be controlled



#### Service & Maintenance Tool

#### Service Tool & Web Monitoring Tool Software

- Extensive monitoring and analysis functions for installation and maintenance
- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Automatic operation check for refrigeration cycle.



## **APARTMENT, VILLA**

Fujitsu General offers the small VRF system to match from large living rooms to bedrooms for apartment and villa.

#### Space saving installation

Space saving Mini duct type with 198 mm height and 450mm depth. This can be installed in narrow ceiling space easily.



Mini Duct



**APARTMENT** 



Large space air conditioning in the dining and living room







Large space air conditioning in a family room











Large Wall Mounted

#### Easy operation and various energy saving control





#### Small space air conditioning

Various ranges of low capacity indoor units to suit small space such as a guest room

## LARGE BUILDING

Fujitsu General provides modular type VRF systems that seek high efficiency, comfort, design freedom, easy installation and reliability for skyscraper buildings.

## Individual air conditioning system for large buildings

VRF series lineup to meet various needs such as energy saving-orientated models and models compatible with a high outdoor air temperature of 52°C





8 HP - 48 HP 32 Models • Space saving combination: 8 HP to 48 HP / 21 models • Energy efficiency combination: 20 HP to 42 HP / 11 models

## Centralized control of both air conditioning and lighting

It is possible to perform centralized control to stop the operation of lighting and ventilation equipment in addition to air conditioner. This is useful in energy saving management over the whole building.

N E W System

System Controller Lite





VRF indoor

units



Lightning Ventilation Energy Recov Ventilation



## Ventilation(AHU) linked with VRF system

Fujitsu General's DX-Kit enable other manufacture's air handling units (AHU) to be incorporated into a Fujitsu VRF system. Possible to control comfortable air conditioning and ventilation.

![](_page_5_Figure_20.jpeg)

![](_page_5_Picture_21.jpeg)

![](_page_5_Picture_22.jpeg)

![](_page_5_Figure_23.jpeg)

## AIRSTAGE<sup>™</sup> VRF SYSTEMS CAN BE DESIGNED TO CREATE AN AIR CONDITIONING SOLUTION TO SUIT MOST BUILDINGS REQUIREMENTS.

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

# AIRSTAGE<sup>™</sup> CORE TECHNOLOGY

HIGH ENERGY EFFICIENCY HIGH RELIABILITY DESIGN FLEXIBILITY MORE COMFORT EASY INSTALLATION EASY SERVICE & MAINTENANCE

![](_page_6_Picture_5.jpeg)

![](_page_6_Picture_6.jpeg)

## HIGH ENERGY EFFICIENCY

## Highly Energy Efficiency

Significantly efficiency is improved by using DC twin rotary compressor, inverter technology, and large heat exchanger.

![](_page_7_Picture_4.jpeg)

![](_page_7_Figure_5.jpeg)

## Operation Performance is Efficiently Controlled.

#### Room temperature set point limitation

The minimum and maximum temperature ranges can be limited, which provide further energy saving while maintaining the comfort of the occupants.

#### Auto-off timer

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

Furthermore a new wired remote controller can set up the interval of time in case operation stops.

![](_page_7_Figure_12.jpeg)

#### Energy saving management

A variety energy saving operations can be set and managed depending on the season, weather, and time period. Excellent energy saving operation is performed by using System Controller.

![](_page_7_Figure_15.jpeg)

(Screen image is Energy manager software(Option))

#### Capacity save operation

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

![](_page_7_Figure_19.jpeg)

![](_page_7_Figure_21.jpeg)

![](_page_7_Figure_22.jpeg)

![](_page_7_Picture_24.jpeg)

![](_page_7_Figure_25.jpeg)

**OGENERAL** 15

**HIGH RELIABILITY** 

![](_page_8_Picture_1.jpeg)

## Heavy anti-corrosion treatment design

![](_page_8_Picture_3.jpeg)

![](_page_8_Figure_4.jpeg)

#### Take special notice of the following in order to enhance the anti-corrosion effect.

• Keep the unit free of direct sea breeze as much as possible by installing a windshield plate or placing the unit on the leeward side of the building.

Arrange the unit so that any salt attached to the enclosure can be washed away by rain.
Any water left on the bottom of the outdoor unit can increase corrosion. To prevent interference with the water drain, be careful of the tilting angle of the unit.

• Wash the enclosure regularly with water to remove any salt attached.

Repair any damages on the unit (i.e. scratches) caused during installation or maintenance.
Check the condition of the unit regularly. (If necessary, retreat the unit for anti-corrosion or make parts replacements.)

• Make sure the drainage is secured at the foundation.

#### Life-extending operation

Outdoor unit rotational operation The compressor starting order is rotated so that the running time is shared.

![](_page_8_Picture_14.jpeg)

#### **Backup operation**

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

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

![](_page_8_Picture_18.jpeg)

## Innovative compressor control logic has been introduced in

order to balance the refrigerant mass flow rate of each outdoor unit by controlling the inverter speed.

#### Liquid flow back protection

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

#### **Oil Recovery operation**

Periodic oil recovery operation is done automatically in order to feed back oil from the indoor unit to compressor.

![](_page_8_Figure_26.jpeg)

![](_page_8_Figure_27.jpeg)

![](_page_8_Figure_28.jpeg)

![](_page_9_Picture_1.jpeg)

## **DESIGN FLEXIBILITY**

Overall piping length 1,000m (For V-III tropical)

Total pipe length ,000m max.

![](_page_9_Figure_5.jpeg)

#### High static pressure

The outdoor unit can have a condenser hood easily connected with a static pressure of 82Pa. This allows outdoor units to be installed within plant rooms in high rise buildings.

Powerful discharge air prevents a short-circuit.

![](_page_9_Figure_9.jpeg)

Previous model

![](_page_9_Picture_11.jpeg)

#### High capacity connection

#### AIRSTAGE V-III TROPICAL series

![](_page_9_Picture_15.jpeg)

![](_page_9_Picture_16.jpeg)

High ambient operation design 🧃

![](_page_9_Picture_18.jpeg)

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

#### **AIRSTAGE** V-III TROPICAL series

![](_page_9_Figure_21.jpeg)

![](_page_9_Picture_25.jpeg)

![](_page_9_Picture_26.jpeg)

Large diameter fan and DC motor has been utilized allowing an external static pressure of 82Pa. This is approximately 2.6 times greater than the previous model.

#### **AIRSTAGE J- TROPICAL** series

![](_page_9_Picture_29.jpeg)

4HP-6HP / 6models

![](_page_9_Picture_31.jpeg)

#### **AIRSTAGE J- TROPICAL** series

![](_page_9_Figure_34.jpeg)

\*. Note : When a multiple outdoor unit connection is used, operating range is from -5°C to 52°C in cooling.

## **MORE COMFORT**

![](_page_10_Picture_2.jpeg)

## Powerful cooling capacity design

![](_page_10_Picture_4.jpeg)

High cooling power has been realized by adopting large heat exchanger, high capacity DC inverter compressor, sub-cooler equipment, etc.

![](_page_10_Figure_6.jpeg)

## Touch Panel Wired Remote Controller

The new wired remote controller has an easy to use LCD touch panel. This new controller has a back light function and can easily control the air conditioner which provides a better energy saving operation of the air conditioner.

![](_page_10_Figure_9.jpeg)

#### Precision refrigerant flow control

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

#### Quiet operation

#### Low noise mode

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

Non-stop oil recovery operation

stopping the cooling or heating operation.

\*: AIRSTAGE VR-II series is not available

A comfortable room condition is maintained during oil recovery

mode because the product continues to operate without

![](_page_10_Picture_18.jpeg)

![](_page_10_Figure_21.jpeg)

#### Quiet priority setting

![](_page_10_Figure_23.jpeg)

#### Capacity priority setting

![](_page_10_Figure_25.jpeg)

Capacity priority low noise mode

![](_page_10_Figure_27.jpeg)

**EASY INSTALLATION** 

![](_page_11_Picture_1.jpeg)

## Easily transported

**Easily craned using lifting belt hooks** Design of outdoor unit allows for lifting straps to be used

![](_page_11_Picture_4.jpeg)

**Transporting by forklift** Transport with forklift is possible.

![](_page_11_Picture_6.jpeg)

Can be transported in a small elevator

![](_page_11_Picture_8.jpeg)

## Easy access

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

## Flexible piping connection

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

![](_page_11_Picture_13.jpeg)

![](_page_11_Picture_14.jpeg)

![](_page_11_Picture_15.jpeg)

![](_page_11_Picture_16.jpeg)

Flexible installation by 4 way pipe direction

#### Simple wiring work

Installation of the wiring systems is made easier as the communication wiring can be installed continuously between the indoor, outdoor and RB units.

## Easy evacuation - using vacuum mode function

The vacuum mode function enables all expansion valves of indoor units to be fully opened, making it easy to evacuate all the air inside pipe lines and indoor units.

![](_page_11_Picture_22.jpeg)

The address of the indoor unit and signal amplifier can be set through the automatic function setting on the outdoor unit PCB.

![](_page_11_Figure_24.jpeg)

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

#### Easy commissioning by Service Tool

Service tools can be used to check the refrigerant temperature, pressure, and the operating status of the electronic expansion valve, making it easy to determine whether the units are connected properly.

![](_page_11_Picture_28.jpeg)

![](_page_11_Picture_29.jpeg)

![](_page_11_Figure_30.jpeg)

![](_page_11_Figure_31.jpeg)

## **EASY SERVICE &** MAINTENANCE

![](_page_12_Picture_2.jpeg)

## Design for Easy Maintenance

7 segment LED is used to make it easy to check the details about the function setting status, refrigerant temperature, pressure, compressor operation time, and other factors for each model to make it easy to perform self-diagnostics.

![](_page_12_Picture_5.jpeg)

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

#### 7-segment LED

![](_page_12_Picture_8.jpeg)

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

**Movable PCB panel** Easier for maintenance work behind the PCB

![](_page_12_Picture_11.jpeg)

Error status can be cheked easily by outdoor unit display

## Error and 10 quantity Error code Abnormal indoor 88 83 unit address

#### Error diagnosis by Service Tool

#### **Connection to Service Tool**

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

![](_page_12_Figure_18.jpeg)

#### **Remote monitoring**

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

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

#### Monitoring Side

![](_page_12_Picture_23.jpeg)

![](_page_12_Figure_25.jpeg)

![](_page_12_Figure_26.jpeg)

![](_page_12_Figure_27.jpeg)

#### Error status can be checked easily via the indoor unit wired controller

![](_page_12_Figure_29.jpeg)

![](_page_12_Figure_30.jpeg)

![](_page_12_Figure_32.jpeg)

![](_page_13_Picture_0.jpeg)

0

6

## The AIRSTAGE 2 Series has a total of 38 models to meet the environmental and building size requirements.

The AIRSTAGE series outdoor units were developed with structural designs and advanced inverter technology to provide higher efficiency. High durability technology has also been incorporated to ensure long-term use.

## AIRSTAGE<sup>™</sup> LINE-UP HEAT PUMP TYPE AIRSTAGE V-III TROPICAL Series

HEAT PUMP TYPE AIRSTAGE J-III TROPICAL Series

# **AIRSTAGE**<sup>TM</sup> SERIES

![](_page_13_Picture_7.jpeg)

RSTAGE

## $\textbf{AIRSTAGE}^{\text{\tiny M}} \textbf{ LINE-UP}$

Fujitsu General provides multi air conditioning systems for buildings AIRSTAGE Series matched to the size and application of the property.

#### Outdoor units range

НР		4	5	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
BTU/h	36,000	45,000	54,000	72,000	90,000	108,000	126,000	144,000	162,000	180,000	198,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000	
Ton		3.0	3.8	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0
Airstage V-III	Space saving				AJH072LN*BH	Ajho9oln*Bh	AJH108LN*BH	AjH126LN*BH	AjH144LN*BH	AjH162LN*BH	Ajh180LN*8H	AjH198LN★BH	AjH216LN*BH	AjH234LN*BH	AJH252LN*BHA	AjH270LN*BH	AJH288LN*BH	AjH306LN*BHA	AJH324LN*BHA	AjH342LN*BHA	AJH360LN*BH	AjH378LN*BH	AjH396LN*BH	AJH414LN*BH	AjH432LN*BH
Heat Pump	High Efficiency										AjH180LN*BHH		AjH216LN*BHH	AjH234LN*BHH	AjH252LN*BHH	AjH270LN*BHH	AjH288LN*BHH	AJH306LN*BHH	AjH324LN*BHH	AjH342LN*BHH	AjH360LN*BHH	AjH378LN*BHH			
NEW AIRSTAGE J-JII TROPICAL series Heat Pump	High Efficiency (Single phase)	Ajh040LBTAHN	Ajho45LBTAHN	Ajho54LBTAHN																					
	High Efficiency (3 phase)	Ajh040LETAHN	Ajho45LETAHN	Ajho54Letahn																					

![](_page_14_Picture_5.jpeg)

V-III Tropical : AJH\_\_LN \* : AJH\_\_LNL, AJH\_\_LNT

## **HEAT PUMP TYPE** AIRSTAGE J/- III TROPPEAD

#### **TROPICAL** series

Fujitsu General tropical VRF is designed for tropical weather. Extensive lineup from 8HP to 48HP in 2HP increment Connectable indoor unit capacity ratio up to 130%

#### System Outline

#### High ambient operation design Possible to operate cooling up to 52°C outdoor temperature

#### **Powerful cooling** capacity design

Keeping high cooling power at even high ambient temperature

#### Anti-corrosion treatment design

All metalic and PCB components are protected against corrosion

![](_page_15_Figure_9.jpeg)

![](_page_15_Figure_10.jpeg)

#### System configuration example • This system is used for medium-sized and large buildings.

- Connecting each outdoor unit makes it possible to create a high-capacity system.
- Connection of multiple indoor units using separation tubes and headers.

![](_page_15_Figure_14.jpeg)

#### Features

#### **Energy efficiency**

#### Space saving combination

Top class high COP is realized for all combinations by our unique heat exchanger structure, high efficient DC twin compressor, and other our own technologies.

![](_page_15_Figure_19.jpeg)

#### **Energy efficiency combination**

![](_page_15_Picture_21.jpeg)

#### Energy saving technology that boosted operation efficiency

![](_page_15_Picture_23.jpeg)

Powerful large propeller fan By using CFD\*1 technology, a newly designed fan achieves high performance and low noise operation. \*1. CFD = Computational Fluid Dynamics

#### All Inverter

![](_page_15_Picture_26.jpeg)

Efficiency is substantially improved by high efficient motor with sophisticated driver control. In addition, low noise is realized by DC fan motor.

![](_page_15_Picture_28.jpeg)

#### Sine-wave DC inverter control High efficiency is realized by adoption of reduced switching loss IPM.

![](_page_15_Picture_30.jpeg)

High efficient & Large capacity DC inverter compressor Large capacity high efficient DC twin rotary compressor

![](_page_15_Picture_33.jpeg)

High Heat Exchange efficiency is achieved by using an internal projection shape double pipe construction.

![](_page_15_Picture_35.jpeg)

Heat exchange efficiency is significantly improved by the introduction of a new 4-face heat exchanger that increases effective surface area.

Front intake port (corner cut air inhaling structure)

#### Advanced energy saving control

#### Multiple outdoor operation control

This control method operates all compressors at part load and distributes refrigerant to all heat exchangers to improve the overall system efficiency.

![](_page_15_Picture_41.jpeg)

High efficient operation

Inefficient operation

![](_page_15_Figure_45.jpeg)

![](_page_15_Figure_46.jpeg)

![](_page_15_Figure_47.jpeg)

![](_page_15_Picture_49.jpeg)

#### Heat exchanger refrigerant control

The efficiency of the top and bottom heat exchanger in the outdoor unit has been improved by adopting an optimum refrigerant path control.

![](_page_15_Figure_52.jpeg)

**Outdoor units lineup** 

• Combinations other than the followings are not recommended.

#### Space saving combination

Image: Altropy of the sector	72,000 Btu/h (8HP)	90,000 Btu/h (10HP)	108,000 Btu/h (12HP)	126,000 Btu/h (14HP)	144,000 Btu/h (16HP)
АНН072LIN*BH UNIT: АНН02UN*BH         АН109UN*BH UNIT: АНН00UN*BH         АН108LN*BH UNIT: АНН00UN*BH         АН126LN*BH UNIT: АНН000 Btwh (24HP)         АЗ4000 Btwh (26HP)           162,000 Btwh (18HP)         180,000 Btwh (20HP)         198,000 Btwh (22HP)         216,000 Btwh (24HP)         234,000 Btwh (26HP)           AH1162LN*BH UNIT: АН180LN*BH         AH1180LN*BH UNIT: АН126072LN*BH         AH1216LN*BH UNIT: АН126090(N*BH         AH236LN*BH           252,000 Btwh (28HP)         270,000 Btwh (30HP)         288,000 Btwh (32HP)         306,000 Btwh (34HP)         344,000 Btwh (36HP)           AH252LN*BHA UNIT: АН126172EUN*BH         AH270LN*BH UNIT: АН126072IN*BH         AH236LN*BH UNIT: АН126072IN*BH         344,000 Btwh (36HP)           342,000 Btwh (38HP)         360,000 Btwh (40HP)         378,000 Btwh (42HP)         396,000 Btwh (44HP)         414,000 Btwh (46HP)           342,000 Btwh (38HP)         360,000 Btwh (40HP)         378,000 Btwh (42HP)         396,000 Btwh (44HP)         414,000 Btwh (46HP)           342,000 Btwh (48HP)         AH360LN*BH UNIT: AH144/1260090DIN*BH         AH378LN*BH UNIT: AH144/144D2G009DIN*BH         AH396LN*BH UNIT: AH144/144D2G009DIN*BH         AH396LN*BH UNIT: AH144/144D2G009DIN*BH         AH396LN*BH UNIT: AH144/144D2G009DIN*BH           422,000 Btwh (40HP)         AH360LN*BH UNIT: AH144/144D2G009DIN*BH         AH396LN*BH UNIT: AH144/144D2G009DIN*BH         AH396LN*BH UNIT: AH144/144D2G00BH         AH396LN*BH UNIT: AH144/144D12ELN*B					
162,000 Btu/h (18HP)       180,000 Btu/h (20HP)       190,000 Btu/h (22HP)       216,000 Btu/h (24HP)       234,000 Btu/h (26HP)         A)H 152,LN * BH       A)H 180,LN * BH       A)H 190,LN * BH       A)H 216,LN * BH       A)H 234,LN * BH         UNIT : A)H090/072,LN * BH       UNIT : A)H090/072,LN * BH       UNIT : A)H126/126/199,LN * BH       A)H234,LN * BH       A)H234,LN * BH         252,000 Btu/h (28HP)       270,000 Btu/h (30HP)       288,000 Btu/h (32HP)       306,000 Btu/h (34HP)       324,000 Btu/h (36HP)         A)H252,LN * BHA       A)H270,LN * BH       A)H270,LN * BH       A)H306,LN * BH       A)H306,LN * BH       A)H306,LN * BH         UNIT : A)H126/126,LN * BHA       A)H270,LN * BH       A)H270,LN * BH       A)H306,LN * BHA       A)H306,LN * BHA       A)H324,LN * BHA         JAH224,LN * BHA       A)H370,LN * BH       JUNIT : A)H144/126/J20,LN * BH       JUNIT : A)H144/126/J20,DN * BH       A)H306,LN * BHA       A)H324,LN * BHA         JAH224,DN * BHA       JAH326,LN * BH       JUNIT : A)H144/126/J20,DN * BH       JUNIT : A)H144/126/J20,DN * BH       JUNIT : A)H144/126/J20,DN * BH       JUNIT : A)H144/144/J20,DN * BH       JUNIT : A)H144/J144/J20,DN * BH       JUNIT : A)H144/J144/J	AJH072LN*BH UNIT : AJH072LN*BH	AJH090LN★BH UNIT: AJH090LN★BH	AJH108LN★BH UNIT: AJH108LN★BH	AJH126LN★BH UNIT : AJH126LN★BH	AJH144LN★BH UNIT : AJH144LN★BH
AjHi 62LN * BH UNIT : AjH090072LN * BH         AjH130LN * BH UNIT : AjH090072LN * BH         AjH130LN * BH UNIT : AjH136072N*BH         AjH216LN * BH UNIT : AjH136090N*BH         AjH236N72N*BH           252,000 Btu/t (28HP)         270,000 Btu/t (30HP)         288,000 Btu/t (32HP)         306,000 Btu/t (34HP)         324,000 Btu/t (36HP)           AjH252LN * BHA UNIT : AjH142/126/126LN * BH         AjH270LN * BH UNIT : AjH142/126/126         AjH270LN * BH UNIT : AjH142/126/126         AjH306LN * BH UNIT : AjH142/126/090090LN * BH         AjH306LN * BH UNIT : AjH142/126/090090LN * BH           342,000 Btu/t (38HP)         360,000 Btu/t (40HP)         378,000 Btu/t (42HP)         396,000 Btu/t (44HP)         414,000 Btu/t (46HP)           AjH324LN * BHA UNIT : AjH142/126/090IN * BH         AjH370LN * BH UNIT : AjH144/126/090IN * BH         378,000 Btu/t (42HP)         396,000 Btu/t (44HP)         414,000 Btu/t (46HP)           AjH326LN * BHA UNIT : AjH144/126/090IN * BH         AjH376LN * BH UNIT : AjH144/126/090IN * BH         AjH376LN * BH UNIT : AjH144/126/126/126LN * BH         AjH376LN * BH           432,000 Btu/t (48HP)         AjH360LN * BH UNIT : AjH144/126/126/126LN * BH         AjH376LN * BH         AjH376LN * BH         AjH376LN * BH           432,000 Btu/t (48HP)         AjH360LN * BH         AjH376LN * BH         AjH376LN * BH         AjH376LN * BH         AjH376LN * BH           432,000 Btu/t (48HP)         AjH360LN * BH         AjH376LN * BH         AjH376LN * BH	162,000 Btu/h (18HP)	180,000 Btu/h (20HP)	198,000 Btu/h (22HP)	216,000 Btu/h (24HP)	234,000 Btu/h (26HP)
AjH162LN*BH UNIT: AjH090072LN*BHAjH180LN*BH UNIT: AjH1260072LN*BHAjH236LN*BH UNIT: AjH1260090LN*BHAjH234LN*BH UNIT: AjH1260090LN*BH252,000 Btu/h (28HP)270,000 Btu/h (30HP)288,000 Btu/h (32HP)306,000 Btu/h (34HP)324,000 Btu/h (36HP)AjH252LN*BHA UNIT: AjH126/126LN*BH UNIT: AjH126/126LN*BH UNIT: AjH126/126LN*BH UNIT: AjH126/126LN*BH UNIT: AjH126/126LN*BH UNIT: AjH144/126LN*BHAjH288LN*BH AjH288LN*BH UNIT: AjH126/0900NN*BHAjH324LN*BHA UNIT: AjH144/1260900NN*BH342,000 Btu/h (38HP)360,000 Btu/h (40HP)378,000 Btu/h (42HP)396,000 Btu/h (44HP)414,000 Btu/h (38HP)306,000 Btu/h (40HP)378,000 Btu/h (42HP)360,000 Btu/h (40HP)AjH324LN*BHA UNIT: AjH144/126(1990LN*BH UNIT: AjH144/126(1990LN*BHAjH37BLN*BH UNIT: AjH144/126(1990LN*BHAjH37BLN*BH UNIT: AjH144/126(1990LN*BH432,000 Btu/h (48HP)AjH360LN*BH UNIT: AjH144/126(1990LN*BHAjH37BLN*BH UNIT: AjH144/126(1990LN*BHAjH37BLN*BH UNIT: AjH144/126(1990LN*BH <td></td> <td></td> <td></td> <td></td> <td></td>					
252,000 Btu/h (28HP)       270,000 Btu/h (30HP)       288,000 Btu/h (32HP)       306,000 Btu/h (34HP)       324,000 Btu/h (36HP)         AJH252LN*BHA UNIT: AJH126/126LN*BH       AJH270LN*BH UNIT: AJH14/126LN*BH       AJH288LN*BH UNIT: AJH14/126LN*BH       AJH306LN*BHA UNIT: AJH14/0200901N*BH       AJH324LN*BHA UNIT: AJH14/0200901N*BH       AJH306LN*BHA UNIT: AJH14/0200901N*BH       AJH306LN*BHA UNIT: AJH14/0200901N*BH       414,000 Btu/h (46HP)         342,000 Btu/h (38HP)       360,000 Btu/h (40HP)       378,000 Btu/h (42HP)       396,000 Btu/h (44HP)       414,000 Btu/h (46HP)         AJH342LN*BHA UNIT: AJH144/12600001N*BH       AJH360LN*BH UNIT: AJH144/12600001N*BH       JH378LN*BH UNIT: AJH144/12601260090LN*BH       AJH414LN*BH UNIT: AJH144/12601261N*BH         432,000 Btu/h (48HP)       AJH360LN*BH UNIT: AJH144/12600001N*BH       AJH378LN*BH UNIT: AJH144/12601261N*BH       AJH414LN*BH UNIT: AJH144/12601261N*BH         AJH432LN*BH UNIT: AJH144/12600001N*BH       JH4144/12600001N*BH       JH4144/12600001N*BH       JH444/12601A*BH         AJH432LN*BH UNIT: AJH144/12600001N*BH       AJH360LN*BH       JH4144/12600001N*BH       JH4400000000000000000000000000000000000	AJH162LN★BH UNIT : AJH090/072LN★BH	AJH180LN★BH UNIT : AJH090/090LN★BH	AJH198LN★BH UNIT : AJH126/072LN★BH	AJH216LN★BH UNIT : AJH126/090LN★BH	AJH234LN★BH UNIT : AJH144/090LN★BH
AJH252LN*BHA UNIT: AJH126126LN*BH       AJH270LN*BH UNIT: AJH144/126LN*BH       AJH288LN*BH UNIT: AJH144/14LN*BH       AJH306LN*BHA UNIT: AJH126090090LN*BH       AJH324LN*BHA UNIT: AJH144/126090090LN*BH         342,000 Btu/h (38HP)       360,000 Btu/h (40HP)       378,000 Btu/h (42HP)       396,000 Btu/h (44HP)       414,000 Btu/h (46HP)         AJH342LN*BHA UNIT: AJH144/126(090LN*BH       AJH360LN*BH UNIT: AJH144/126(090LN*BH       AJH37BLN*BH UNIT: AJH144/126(190LN*BH       AJH396LN*BH UNIT: AJH144/126(190LN*BH       AJH414LN*BH UNIT: AJH144/126(190LN*BH         432,000 Btu/h (48HP)       AJH360LN*BH UNIT: AJH144/126(190LN*BH       AJH37BLN*BH UNIT: AJH144/126(190LN*BH       AJH37BLN*BH UNIT: AJH144/126(190LN*BH       AJH414LN*BH UNIT: AJH144/126(190LN*BH         432,000 Btu/h (48HP)       AJH360LN*BH UNIT: AJH144/126(190LN*BH       AJH37BLN*BH UNIT: AJH144/126(190LN*BH       AJH396LN*BH UNIT: AJH144/126(190LN*BH         432,000 Btu/h (48HP)       AJH360LN*BH UNIT: AJH144/126(190LN*BH       AJH37BLN*BH UNIT: AJH144/126(190LN*BH       AJH396LN*BH UNIT: AJH144/126(190LN*BH         AJH432LN*BH UNIT: AJH144/126(190LN*BH       AJH360LN*BH       AJH414LN*BH       AJH414LN*BH	252,000 Btu/h (28HP)	270,000 Btu/h (30HP)	288,000 Btu/h (32HP)	306,000 Btu/h (34HP)	324,000 Btu/h (36HP)
AjH252LN*BHA UNIT: AjH126/126LN*BHAjH270LN*BH UNIT: AjH144/126LN*BHAjH288LN*BH UNIT: AjH126/090/090LN*BHAjH324LN*BHA UNIT: AjH144/090/090LN*BH342,000 Btw/h (38HP)360,000 Btw/h (40HP)378,000 Btw/h (42HP)396,000 Btw/h (44HP)414,000 Btw/h (46HP)AjH342LN*BHA UNIT: AjH1342/1026/090LN*BHAjH360LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/126/090LN*BH432,000 Btw/h (48HP)AjH396LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/126LN*BH UNIT: AjH144/144/090ULN*BHAjH432LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH UNIT: AjH144/126/090LN*BHAjH396LN*BH 					
342,000 Btu/h (38HP)       360,000 Btu/h (40HP)       378,000 Btu/h (42HP)       396,000 Btu/h (44HP)       414,000 Btu/h (46HP)         AjH342LN*BHA UNIT: AjH126/126/090LN*BH       AjH360LN*BH UNIT: AjH144/126/090LN*BH       AjH378LN*BH UNIT: AjH144/126/126LN*BH       AjH396LN*BH UNIT: AjH144/126/126LN*BH       AjH414LN*BH UNIT: AjH144/126/126LN*BH         432,000 Btu/h (48HP)       AjH432LN*BH UNIT: AjH144/126/090LN*BH       AjH432LN*BH       AjH432LN*BH       AjH44/126/126LN*BH	AJH252LN★BHA UNIT : AJH126/126LN★BH	AJH270LN★BH UNIT : AJH144/126LN★BH	AJH288LN★BH UNIT : AJH144/144LN★BH	AJH306LN*BHA UNIT : AJH126/090/090LN*BH	AJH324LN*BHA UNIT : AJH144/090/090LN*BH
AJH342LN*BHA UNIT: AJH126/126/090LN*BHAJH360LN*BH UNIT: AJH144/126/090LN*BHAJH378LN*BH UNIT: AJH144/126/126LN*BH UNIT: AJH144/126/126LN*BHAJH396LN*BH UNIT: AJH144/126/126LN*BH432,000 Btu/h (48HP)AJH432LN*BH UNIT: AJH144/144/144/144/144/144/144/190LN*BHAJH432LN*BH UNIT: AJH144/144/144/144/144/144/144/144/144/144	342,000 Btu/h (38HP)	360,000 Btu/h (40HP)	378,000 Btu/h (42HP)	396,000 Btu/h (44HP)	414,000 Btu/h (46HP)
AJH342LN*BHA       AJH360LN*BH       AJH360LN*BH       AJH378LN*BH       AJH396LN*BH       AJH414LN*BH         432,000 Btu/h (48HP)       Image: Altitude of the state	111				
432,000 Btu/h (48HP)	AJH342LN*BHA UNIT: AJH126/126/090LN*BH	AJH360LN*BH UNIT : AJH144/126/090LN*BH	AJH378LN * BH UNIT : AJH144/144/090LN * BH	AJH396LN*BH UNIT : AJH144/126/126LN*BH	AJH414LN*BH UNIT : AJH144/144/126LN*BH
AJH432LN★BH	432,000 Btu/h (48HP)				
	AJH432LN*BH UNIT : AJH144/144/144LN*BH				

#### **Energy efficiency combination**

![](_page_16_Figure_5.jpeg)

#### Dimensions

8,10HP: AJH072LN\*BH / AJH090LN\*BH

![](_page_16_Figure_8.jpeg)

12,14,16HP : AJH108LN\*BH / AJH126LN\*BH / AJH144LN\*BH

![](_page_16_Picture_10.jpeg)

![](_page_16_Figure_11.jpeg)

![](_page_16_Figure_12.jpeg)

32 **OGENERAL** 

![](_page_16_Picture_15.jpeg)

(Unit : mm)

![](_page_16_Figure_18.jpeg)

AJH\_\_\_LN\*: AJH\_\_\_LNL, AJH\_\_\_LNT

(Unit : mm)

![](_page_16_Figure_24.jpeg)

#### Space Saving Combination

-		Н	D	8	10	12	1/	16	18	20	22	26	26	28	30	32	3/.	36	38	60	62	66	46	4.8
Rating Capacity range		01		72,000	00.000	100.000	126,000	1// 000	162,000	100.000	100.000	24	20	20	270.000	200.000	200,000	22/ 000	2/2.000	200.000	370.000	200,000	40	(22,000
		Tee		72,000	90,000	108,000	126,000	144,000	162,000	180,000	198,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000	396,000	414,000	432,000
		10	n	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5	33.0	34.5	36.0
Model nam	e			AJH072LN*BH	AJH090LN*BH	AJH108LN*BH	AJH126LN*BH	AJH144LN*BH	AJH162LN*BH	AJH180LN*BH	AJH198LN*BH	AJH216LN*BH	AJH234LN*BH	AJH252LN*BHA	AJH270LN*BH	AJH288LN*BH	AJH306LN*BHA	AJH324LN*BHA	AJH342LN*BHA	AJH360LN*BH	AJH378LN*BH	AJH396LN*BH	AJH414LN*BH	AJH432LN*BH
Unit 1 Unit 2 Unit 3				AJH072LN∗BH	AJH090LN*BH	AJH108LN*BH	AJH126LN*BH	AJH144LN*BH	AJH162LN∗BH	AJH090LN*BH AJH090LN*BH	AJH126LN*BH AJH072LN*BH	AJH126LN*BH AJH090LN*BH	AJH144LN≭BH AJH090LN≭BH	AJH126LN*BH AJH126LN*BH	AJH144LN*BH AJH126LN*BH	AJH144LN*BH AJH144LN*BH	AJH126LN ★ BH AJH090LN ★ BH	AJH144LN*BH AJH090LN*BH	AJH126LN*BH AJH126LN*BH	AJH144LN*BH AJH126LN*BH	AJH144LN*BH AJH144LN*BH	AJH144LN*BH AJH126LN*BH	AJH144LN*BH AJH144LN*BH AJH126LN*BH	AJH144LN*BH AJH144LN*BH
Maximum (	Connoctable Inde	orllnit		12	16	10	22	26	20	22	26	60	(2	47	50	52						AJHIZOLN + DH		AJIT144LN + DIT
Indoor unit co	nnertable canarity	Cooling	kW	11 2-29 1	16-36.6	16.8-63.5	20-52	20	25	28-72.8	31 2-81 1	36.88.6	36 5-96 9	47	62 5-110 5	/5-117	/8-12/ 8	50 5-131 3	56-160.6	56 5-1/6 9	59-153.6	62 5-162 5	65-169	67 5-175 5
-	intectable capacity	cooning	RIV	11.2 23.1	14 30.4	10.0 45.5	20 52	22.5 50.5	25 05	2072.0	51.2 01.1	54 00.4	5.FC 6.06	40 104	42.5 110.5	45 117	40 124.0	0.0101.0	54 140.4	50.5 140.5	55 155.4	02.5 102.5	05 105	07.5 175.5
Power sour	ce	<b>c b</b>				1	3	-phase, ~380-415V, 60F	lz				3-phase, ~380-415V, 60Hz											
		Cooling	kW	22.4	28.0	33.5	40.0	45.0	50.4	56.0	62.4	68.0	73.0	80.0	85.0	90.0	96.0	101.0	108.0	113.0	118.0	125.0	130.0	135.0
	Capacity	Heating		25.0	31.5	37.5	45.0	50.0	56.5	63.0	70.0	76.5	81.5	90.0	95.0	100.0	108.0	113.0	121.5	126.5	131.5	140.0	145.0	150.0
		Looting	Btu/h	76400	95500	114300	136500	153500	1/1900	191000	212900	232000	249000	2/3000	290000	307000	32/500	344500	368500	385500	402500	426500	443500	460500
		Cooling		85300	10/500	128000	10.06	12.01	192800	215000	238800	261000	2/8100	307000	324100	341200	368500	385600	414500	431600	448700	4//600	494/00	30.03
T1	Input power	Heating	kW	5.20	7.20	8.65	11.17	13.63	12.40	14.50	16.10	10.24	20.29	21.92	25.97	20.02	25.52	27.57	29.20	37.05	36.51	34.93	38.43	59.05
condition		Cooling		9.2	12.0	15.0	17.7	20.7	12.42	14.50	10.54	10.42	20.00	22.34	24.00	27.20	25.07	20.15	25.55	52.05	54.51	55.57	50.45	40.05
	Current	Heating	A	9.2	12.2	14.6	18.2	21.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	EER	Cooling		4.31	3.85	3.74	3.65	3.46	4.04	3.85	3.86	3.73	3.60	3.65	3.55	3.46	3.76	3.66	3.70	3.62	3.54	3.58	3.52	3.46
-	COP	Heating	W/W	4.84	4.35	4.34	4.03	3.67	4.55	4.34	4.28	4.15	3.90	4.03	3.83	3.67	4.21	4.02	4.11	3.95	3.81	3.89	3.77	3.67
	EER	Cooling	Ptu/b/M	14.7	13.1	12.8	12.5	11.8	13.8	13.1	13.2	12.7	12.3	12.5	12.1	11.8	12.8	12.5	12.6	12.3	12.1	12.2	12.0	11.8
	COP	Heating	DLU/11/W	16.5	14.8	14.8	13.7	12.5	15.5	14.8	14.6	14.2	13.3	13.7	13.1	12.5	14.4	13.7	14.0	13.5	13.0	13.3	12.9	12.5
	Capacity	Cooling	kW	20.2	25.2	28.5	32	35.1	45.4	50.4	52.2	57.2	60.3	64.0	67.1	70.2	82.4	85.5	89.2	92.3	95.4	99.1	102.2	105.3
	cupacity		Btu/h	68900	86000	97200	109200	119800	154900	172000	178100	195200	205800	218400	229000	239600	281200	291800	304400	315000	325600	338200	348800	359400
T3	Input power		kW	6.73	9.20	9.34	10.70	11.82	15.93	18.39	17.44	19.90	21.02	21.40	22.52	23.64	29.10	30.21	30.60	31.72	32.83	33.22	34.34	35.45
condition	Current		A	10.8	14.5	14.7	16.9	18.6	-	-	-	-	· · ·	-	-	-	-	-	-	-	-	-	-	-
	EER	Cooling	W/W	3.00	2.74	3.05	2.99	2.97	2.85	2.74	2.99	2.87	2.87	2.99	2.98	2.97	2.83	2.83	2.91	2.91	2.91	2.98	2.98	2.97
		,	Btu/h/W	10.23	9.35	10.40	10.20	10.14	9.72	9.35	10.21	9.81	9.79	10.20	10.17	10.14	9.66	9.66	9.95	9.93	9.92	10.18	10.16	10.14
Power facto	r T	115-1	%	90	92	92	92	92	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-
Airriow rate	1 14	High	m²/n	11100	11100	13000	13000	13700	11100×2	11100×2	13000+11100	13000+11100	13/00+11100	13000×2	13700+13000	13700×2	13000+11100×2	13700+11100×2	13000×2+11100	13700+13000+11100	13700×2+11100	13700×2+11100	13700×2+11100	13700×3
Sound press	sure level /	Hosting	dB (A)	56	58	57	60	62	60	61	61	62	63	63	64	65	64	65	64	65	66	60	60	6/
Extornal sta	tic prossure (Max	a nearing	(n) Pa	58	39	80	02	04	02	82	00	04	00	00	00	87	05	00	00	07	00	00	00	89
	motor output	9	kW	7.5	7.5	11	11	11	7.5x2	7.5x2	11.0+7.5	11.0+7.5	11 0+7 5	11.0x2	11.0x2	11.0x2	11 0+7 5x2	11.0±7.5x2	11 0x2+7 5	11 0x2+7 5	11 0x2+7 5	02 11.0x2+7.5	11 0x2+7 5	11.0x3
Heat exchar	naer fin		KIT	Blue fin	Rlue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin	Blue fin
		Height		1690	1690	1690	1690	1690	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×2	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3
Dimensions		Width	mm	930	930	1240	1240	1240	930×2	930×2	1240+930	1240+930	1240+930	1240×2	1240×2	1240×2	1240+930×2	1240+930×2	1240×2+930	1240×2+930	1240×2+930	1240×2+930	1240×2+930	1240×3
		Depth		765	765	765	765	765	765×2	765×2	765×2	765×2	765×2	765×2	765×2	765×2	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3
Weight			kg	255	255	279	279	279	255×2	255×2	279+255	279+255	279+255	279×2	279×2	279×2	279+255×2	279+255×2	279×2+255	279×2+255	279×2+255	279×2+255	279×2+255	279×3
Dofrigorant		Туре		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Reingerant		Charge	kg	11.7	11.7	11.8	11.8	11.8	11.7×2	11.7×2	11.8+11.7	11.8+11.7	11.8+11.7	11.8×2	11.8×2	11.8×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8+11.7×2	11.8×3
Connection	nine diameter	Liquid	mm	12.70	12.70	12.70	12.70	12.70	15.88	15.88	15.88	15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05	19.05
connection	pipe ulametel	Gas		22.22	22.22	28.58	28.58	28.58	28.58	28.58	34.92	34.92	34.92	34.92	34.92	34.92	34.92	41.27	41.27	41.27	41.27	41.27	41.27	41.27
Operation range		Cooling	°CDB	-15 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52				
		Heating		-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21	-20 to 21				

#### **Energy Efficiency Combination**

		Н	Р	20	24	26	28	30	32	34	36	38	40	42
Rating Capa	icity range	Btu	ı/h	180,000	216,000	234,000	252,000	270,000	288,000	306,000	324,000	342,000	360,000	378,000
		To	n	15.0	18.0	19.5	21.0	22.5	24.0	25.5	27.0	28.5	30.0	31.5
Model name	e			AJH180LN*BHH	AJH216LN*BHH	AJH234LN*BHH	AJH252LN*BHH	AJH270LN*BHH	AJH288LN*BHH	AJH306LN*BHH	AJH324LN*BHH	AJH342LN*BHH	AJH360LN*BHH	AJH378LN*BHH
Unit 1 Unit 2 Unit 3		AJH108LN*BH AJH072LN*BH	AJH072LN*BH AJH072LN*BH AJH072LN*BH	AJH090LN*BH AJH072LN*BH AJH072LN*BH	AJH108LN*BH AJH072LN*BH AJH072LN*BH	AJH126LN*BH AJH072LN*BH AJH072LN*BH	AJH108LN*BH AJH108LN*BH AJH072LN*BH	AJH126LN*BH AJH108LN*BH AJH072LN*BH	AJH108LN*BH AJH108LN*BH AJH108LN*BH	AJH126LN*BH AJH108LN*BH AJH108LN*BH	AJH126LN*BH AJH126LN*BH AJH108LN*BH	AJH126LN*BH AJH126LN*BH AJH126LN*BH		
Maximum (	onnectable Indo	or Unit		33	39	43	46	50	52	55	55	55	55	55
Indoor unit cor	nnectable capacity	Cooling	kW	28-72.6	33.6-87.3	36.4-94.6	39.2-101.7	42.4-110.2	44.7-116.2	48-124.6	50.3-130.6	53.5-139.1	56.8-147.5	60-156
Power source						1	3.	-phase. ~380-415V.60	H7		-		3-nhase ~38	0-415V 60Hz
1041130010		Cooling		55.9	67.2	72.8	78.3	86.8	89.6	95.9	100.5	107.0	113.5	120.0
		Heating	kW	62.5	75.0	81.5	87.5	95.0	100.0	107.5	112.5	120.0	127.5	135.0
	Capacity	Cooling		190700	229200	248300	267100	289300	305000	327200	342900	365100	387300	409500
		Heating	Btu/h	213300	255900	278100	298600	324100	341300	366800	384000	409500	435000	460500
		Cooling		14.16	15.60	17.68	19.36	21.36	23.12	25.12	26.88	28.88	30.88	32.88
T1	Input power	Heating	kW	13.82	15.51	17.59	18.99	21.51	22.47	24.99	25.95	28.47	30.99	33.51
condition	C	Cooling		-	-	-	-	-	-	-	-	-	-	-
	Current	Heating	A	-	-	-	-	-	-	-	-	-	-	-
	EER	Cooling	MAN	3.95	4.31	4.12	4.04	3.97	3.87	3.82	3.74	3.70	3.68	3.65
	COP	Heating	VV/VV	4.52	4.84	4.63	4.61	4.42	4.45	4.30	4.34	4.21	4.11	4.03
	EER	Cooling	Dbu/b/M	13.5	14.7	14.0	13.8	13.5	13.2	13.0	12.8	12.6	12.5	12.5
	COP	Heating	DCU/II/W	15.4	16.5	15.8	15.7	15.1	15.2	14.7	14.8	14.4	14.0	13.7
	Canacity		kW	48.7	60.6	65.6	68.9	72.4	77.2	80.7	85.5	89.0	92.5	96.0
	capacity	Cooling	Btu/h	166100	206700	223800	235000	247000	263300	275300	291600	303600	315600	327600
T3	Input power	cooning	kW	16.08	20.20	22.66	22.81	24.17	25.42	26.78	28.03	29.39	30.75	32.11
condition	Current		A	-	-	-	-	-	-	-	-	-	-	-
	FFR	Cooling	W/W	3.03	3.00	2.89	3.02	3.00	3.04	3.01	3.05	3.03	3.01	2.99
	LEN	cooning	Btu/h/W	10.33	10.23	9.87	10.30	10.22	10.36	10.28	10.40	10.33	10.26	10.20
Power factor			%	-	-	-	-	-	-	-	-	-	-	-
Airflow rate		High	m³/h	13000+11100	11100×3	11100×3	13000+11100×2	13000+11100×2	13000×2+11100	13000×2+11100	13000×3	13000×3	13000×3	13000×3
Sound press	ure level /	Cooling	dB	60	61	62	61	63	61	63	64	64	64	65
Power level		Heating	(A)	62	63	63	64	65	64	65	66	66	66	67
External sta	tic pressure (Max	)	Pa	82	82	82	82	82	82	82	82	82	82	82
Compressor	motor output		kW	11.0+7.5	7.5×3	7.5×3	11.0+7.5×2	11.0+7.5×2	11.0×2+7.5	11.0×2+7.5	11.0×3	11.0×3	11.0×3	11.0×3
Heat exchan	iger fin			Blue fin	Blue fin	Blue fin								
	L	Height		1690×2	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3	1690×3
Dimensions	F	Width	mm	1240+930	930×3	930×3	1240+930×2	1240+930×2	1240×2+930	1240×2+930	1240×3	1240×3	1240×3	1240×3
		Depth	1.	765×2	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3	765×3
Weight			kg	279+255	255×3	255×3	279+255×2	279+255×2	279×2+255	279×2+255	279×3	279×3	279×3	279×3
Refrigerant	ŀ	lype	1.	R410A	R410A	R410A								
		Charge	kg	11.8+11.7	11.7×3	11.7×3	11.8+11.7×2	11.8+11.7×2	11.8×2+11.7	11.8×2+11.7	11.8×3	11.8×3	11.8×3	11.8×3
Connection	pipe diameter	Liquia	mm		15.88	15.88	15.88	19.05	19.05	19.05	19.05	19.05	19.05	19.05
		Cooling		E to 52	54.92	54.92	54.92	54.92	34.92 5 ho 5 2	54.92	41.27	41.27 Etc. E2	41.27	41.27
Operation ra	inge	Heating	°CDB	-5 t0 52	-5 00 52	-5 t0 52	-5 00 52	-5 W 52	-5 to 52	-5 t0 52				
-		пеаціну		-20 to 21	-20 to 21	-20 to 21								

Note: Specifications are based on the following conditions. Cooling(T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB Cooling(T3): Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°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 and indoor unit: 0m.

AJH\_\_LN★: AJH\_\_LNL, AJH\_\_LNT

![](_page_17_Picture_8.jpeg)

AJH\_\_\_LN\*:AJH\_\_\_LNL, AJH\_\_\_LNT

# HEAT PUMP TYPE

#### **TROPICAL** series

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

#### System Outline

#### **High Energy Efficiency**

Heat pump inverter control is used to achieve an efficient cooling and heating operation in any indoor unit combination.

#### Flexible systems for small- and medium-size buildings air conditioning

Space saving design and long piping design allow for flexible installation on the roofs or balconies of small- and medium-size buildings. Multiple indoor units of various capacities and types can be connected.

#### System configuration example

• This system is used for small and medium-sized buildings.

- 1 refrigerant system is used for each outdoor unit.
- Connection of multiple indoor units using separation tubes and headers.

![](_page_18_Figure_12.jpeg)

#### Features

#### **Energy efficiency**

Top class high COP is achieved for all models by large heat exchanger, high efficient DC twin compressor, and our own technologies.

![](_page_18_Figure_16.jpeg)

#### Advanced high efficiency technology

![](_page_18_Picture_18.jpeg)

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

![](_page_18_Picture_20.jpeg)

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

![](_page_18_Picture_22.jpeg)

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

![](_page_18_Figure_24.jpeg)

#### All Inverter

![](_page_18_Picture_28.jpeg)

#### **INVERTER control PCB** Efficiency is improved by mounting of new active filter module.

![](_page_18_Picture_30.jpeg)

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

![](_page_18_Picture_32.jpeg)

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

#### Made in JAPAN

#### Long piping capability

Our advanced refrigerant control technology allows us to achieve a total refrigerant piping length of 180m. This opens up new possibilities in system design.

![](_page_19_Figure_3.jpeg)

![](_page_19_Figure_4.jpeg)

#### 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.

![](_page_19_Figure_8.jpeg)

#### **Easier Installation**

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

• Display connected indoor unit numbers

• Duplicately set address number of indoor unit can be displayed

#### Specifications

		HP	4	5	6	4	5	6
Rating Capacity range		Btu/h	36,000	45,000	54,000	36,000	45,000	54,000
		Ton	3.0	3.8	4.5	3.0	3.8	4.5
Model name			AJH040LBTAHN	AJH045LBTAHN	AJH054LBTAHN	AJH040LETAHN	AJH045LETAHN	AJH054LETAHN
Maximum Connectable	Maximum Connectable Indoor Unit			1-8	1-9	1-7	1-8	1-9
Power source			Sin	gle-phase, ~220-240V, 6	0Hz		3-phase, ~380-415V, 60H	z
	Cooling(T1/T3	LW	12.1/10.3	14.0/11.1	15.5/11.5	12.1/10.3	14.0/11.1	15.5/11.5
Capacity	Heating	KVV	13.6	16.0	18.0	13.6	16.0	18.0
Capacity	Cooling(T1/T3)	Rtu/b	41,000/35,000	47,500/37,800	52,500/39,000	41,000/35,000	47,500/37,800	52,500/39,000
	Heating	Dtu/II	46,000	54,500	61,000	46,000	54,500	61,000
loout oowor	Cooling(T1/T3		2.90/3.47	3.57/3.77	4.18/3.92	2.79/3.30	3.46/3.57	3.99/3.71
iliput power	Heating	kW	2.80	3.55	4.26	2.71	3.40	4.08
Curropt	Cooling(T1/T3		12.7/15.2	15.7/16.6	18.4/17.2	5.2/6.2	6.6/6.6	7.7/6.9
Current	Heating	A	12.3	15.6	18.7	5.0	6.5	7.8
EED	Cooling/T1/T2	W/W	4.17/2.97	3.92/2.95	3.71/2.94	4.33/3.13	4.05/3.11	3.88/3.10
EEK	(11/13)	Btu/h/W	14.15/10.10	13.30/10.05	12.60/9.95	14.70/10.60	13.75/10.60	13.15/10.50
(0)	Heating	W/W	4.86	4.51	4.23	5.01	4.70	4.41
COP	neating	Btu/h/W	16.45	15.35	14.30	17.00	16.00	14.95
Airflow rate	High	m3/h(l/s)	6,200(1,722)	6,400(1,778)	6,900(1,916)	6,200(1,722)	6,400(1,778)	6,900(1,916)
Sound proceura loval	Cooling	dB(A)	50	51	53	50	51	53
souriu pressure rever	Heating	00(A)	52	53	55	52	53	55
	Height		1,334	1,334	1,334	1,334	4         5         0           6,000         45,000         54,000           3.0         3.8         4.5           00LETAHN         AJH045LETAHN         AJH054LETAH           1-7         1-8         1-9           3-phase, ~380-415V, 60Hz         1/10.3         14.0/11.1           1.7         1-8         1-9           3-phase, ~380-415V, 60Hz         1/10.3         14.0/11.1           1.7         1.8         1-9           3.6         16.0         18.0           10/35,000         47,500/37,800         52,500/39,00           6,000         54,500         61,000           '9/3.30         3.46(3.57         3.99/3.71           2.71         3.40         4.08           2/6.2         6.6/6.6         7.7/6.9           5.0         6.5         7.8           3/3/3.13         4.05/3.11         3.88/3.10           7/01.0         16.00         14.95           0(1,722)         6,400(1,778)         6,900(1,916)           50         51         53           52         53         55           1,334         1,334         1,334           970         970	1,334
Current EER COP Airflow rate Sound pressure level Net Dimensions Net Weight	Width	mm	970	970	970	970	970	970
	Depth		370	370	370	370	370	370
Net Weight		kg	120	120	120	120	120	120
Refrigerant		Туре	R410A	R410A	R410A	R410A	R410A	R410A
Connection	Liquid		9.52	9.52	9.52	9.52	9.52	9.52
pipe diameter	Gas		15.88	15.88	19.05	15.88	15.88	19.05
Operation	Cooling	°CDB	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52	-5 to 52
range	Heating		-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(T1): Indoor temperature of 27°CDB / 19°CWB, and outdoor temperature of 35°CDB / 24°CWB Cooling(T3): Indoor temperature of 29°CDB / 19°CWB, and outdoor temperature of 46°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 and indoor unit: Om.

#### Dimensions

Model: AJH040LBTAHN / AJH045LBTAHN / AJH054LBTAHN / AJH040LETAHN / AJH045LETAHN / AJH054LETAHN

![](_page_19_Figure_20.jpeg)

![](_page_19_Picture_22.jpeg)

(Unit : mm)

## 13 Type and 97 models available to meet the requirements of any building design.

The AIRSTAGE indoor units were developed to be highly efficient, compact, low noise and to have user friendly operation. With a variety of indoor units and capacities available, Fujitsu General has an indoor unit to match any requirement which is easy to install and maintain.

Further, a variety of options are available to achieve an air conditioning environment that is more desirable from the user's perspective.

# AIRSTAG **INDOOR UNITS LINE-UP**

0

4-way Flow Compact Cassette 4-way Flow Cassette Mini Duct Slim Duct / Slim Concealed Floor Medium Static Pressure Duct High Static Pressure Duct Large Airflow Duct Floor / Ceiling Ceiling Wall Mounted (EEV Internal / external)

INDOO

![](_page_20_Picture_7.jpeg)

![](_page_20_Picture_8.jpeg)

## **INDOOR UNITS LINE-UP**

Comprehensive range of indoor units of variety design and capacity ranges available which can be selected to suit any air conditioning needs. 13 types, 97 models, Capacity range from 7,000 Btu/h to 96,000Btu/h

#### Indoor units range

(it		Btu/h	7,000	9,000	12,000	14,000	18,000	24,000	30,000	34,000	36,000	45,000	54,000	60,000	72,000	90,000	96,000
capacity range		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	10.0	11.2	12.5	14.0	18.0	22.4	25.0	28.0
	4-way Flow Compact		AUXB07GALH AUXB07GATH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	AUXB24GALH AUXB24GATH									
Cassette		(Slim type)					AUXD18GALH AUXD18GATH	AUXD24GALH AUXD24GATH									
	4-way Flow (Large type)	(Large type)					AUXA18GALH	AUXA24GALH	AUXA30GALH AUXA30GATH	AUXA34GALH	AUXA36GALH AUXA36GATH	AUXA45GALH AUXA45GATH	AUXA54GALH AUXA54GATH				
	Mini Duct (With drain pump)		ARXK07GCLH	ARXK09GCLH	ARXK12GCLH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH									
	Mini Duct (Without drain pump)				ARXK12GALH												
	Slim Duct (With drain pump)		ARXD07GALH ARXD07GALH	ARXD09GALH ARXD09GALH	ARXD12GALH ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GALH									
Duct	Medium Static Pressure I	Duct	71000013/111	100050111	100120111	10010011		ARXA24GBLH ARXA24GBLH	ARXA30GBLH ARXA24GBTH		ARXA36GBLH ARXA36GBTH	ARXA45GBLH ARXA45GBTH					
	High Static Pressure Due	ct									ARXC36GBTH	ARKC45GATH		ARKC60GATH*1	ARXC72GBTH*1	ARXC90GBTH*1	ARXC96GATH*1
	Large Airflow Duct						ARXN18GATH*2	ARXN24GATH*2	ARXN30GATH*2	ARXN34GATH*2	ARXN36GATH*2	ARXN45GATH*2					
The set	Floor (Same as Ceiling model:	s)			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH									
FIOOI	Slim Concealed Floor (Same as Slim Duct moc	dels)	ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH									
Ceiling	Ceiling				ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH	ABHA30GATH		ABHA36GATH	ABHA45GATH	ABHA54GATH				
Wall Mounted	Wall Mounted		ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHA18GACH ASHA18GATH	ASHA24GACH ASHA24GATH	ASHA30GACH ASHA30GATH								
wan modiiteu	Wall Mounted (EEV external)		ASHE07GACH	ASHE07GACH	ASHE07GACH	ASHE07GACH	With this model, connection of EV kit is necessary.										

\*1:ARXC60/72/90/96 cannot be connected to J-III tropical series. \*2:Large Airflow Duct can be connected to V-III tropical series only.

## 4-way Flow Compact Cassette

ModelsModelsAUXB07GALHAUXB07GATHAUXB09GALHAUXB09GATHAUXB12GALHAUXB12GATHAUXB14GALHAUXB14GATHAUXB18GALHAUXB18GATHAUXB24GALHAUXB24GATH

![](_page_22_Picture_3.jpeg)

#### DC FAN

#### Feature

#### 2-stage turbo fan

#### High efficiency design by 2 stage structure

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

![](_page_22_Figure_9.jpeg)

#### Improvement of the airflow distribution

![](_page_22_Picture_11.jpeg)

#### • Maintenance of fan motor and fan

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

A : Fan motor	B : 2-stage turbo fan
C : Bell-mouth	D : Panel

#### **2** Air filter : standard equipment

Adaptation of transparent drainage parts During installation, maintenance and operation, the drain pump and kit can be checked easily.

#### **Quiet quality**

Optimization of wing form (laminar wing type) and wing number (7 blades each) Designed by CFD-analysis (fluid) simulations

![](_page_22_Figure_19.jpeg)

#### High ceiling mode

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

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

![](_page_22_Picture_23.jpeg)

#### Compact design

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

![](_page_22_Picture_26.jpeg)

#### **Specifications**

Model name			AUXB07GALH AUXB07GATH	AUXB09GALH AUXB09GATH	AUXB12GALH AUXB12GATH	AUXB14GALH AUXB14GATH	AUXB18GALH AUXB18GATH	AUXB24GALH AUXB24GATH			
Power source					Single-phase, ~	220-240V, 60Hz					
Capacity	Cooling	LAM	2.2	2.8	3.6	4.5	5.6	7.1			
	Heating	KVV	2.8	3.2	4.1	5.0	6.3	8.0			
Input power		W	25	25	29	35	36	84			
Airflow rate	High		540 (150)	550 (153)	600 (167)	680 (189)	710 (197)	1,030 (286)			
	Med		450 (125)	450 (125)	530 (147)	590 (164)	580 (161)	830 (231)			
	Low	(113)	350 (97)	350 (97)	390 (108)	390 (108)	400 (111)	450 (125)			
Sound pressure	High		34	35	37	38	41	50			
level	Med	dB(A)	30	30	34	34	35	44			
	Low		25	25	27	27	27	30			
Dimensions (H x	W x D)	mm	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570	245 × 570 × 570			
Weight		kg(lbs)	15 (33)	15 (33)	15 (33)	15 (33)	17 (37)	17 (37)			
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52			
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88			
Drain hose diam	eter (I.D./O.U.)	1			25	/ 32					
Cassette	Model name		UTG-UFGC-W								
Grille	Dimensions (HxWxD)	mm			50 × 70	0 × 700					
	Weight	kg(lbs)			2.6	(6)					

Note : Specifications are based on the following conditions.

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

![](_page_22_Figure_31.jpeg)

![](_page_22_Figure_33.jpeg)

#### **Optional parts**

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

## 4-way Flow Cassette (Slim type)

Models Models AUXD18GALH AUXD18GATH AUXD24GALH AUXD24GATH

![](_page_23_Picture_3.jpeg)

![](_page_23_Picture_4.jpeg)

#### Feature

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

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

![](_page_23_Figure_8.jpeg)

![](_page_23_Figure_9.jpeg)

#### Improvement of the airflow distribution

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

![](_page_23_Picture_12.jpeg)

![](_page_23_Picture_13.jpeg)

![](_page_23_Figure_14.jpeg)

happens by spreading airflow widely

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

![](_page_23_Figure_17.jpeg)

#### High ceiling mode

This cassette can be installed up to a height of 3.5m.

Model code	The maximum height from floor to ceiling (m)						
Model code	Standard mode	High ceiling mode					
18	3.0	3.5					
24	3.0	3.5					

One way installation

![](_page_23_Picture_22.jpeg)

#### **Specifications**

Model name			AUXD18GALH	AUXD24GALH			
modername			AUXD18GATH	AUXD24GATH			
Power source			Single-phase, ~	220-240V, 60Hz			
Capacity	Cooling	LAM	5.6	7.1			
	Heating	KVV	6.3	8.0			
Input power		W	39	46			
Airflow rate	High		1,150 (319)	1,280 (356)			
	Med	m <sup>3</sup> /h	940 (261)	1,040 (289)			
	Low	(113)	870 (242)	870 (242)			
Sound pressure	High		36	38			
level	Med	dB(A)	30	33			
	Low		29	29			
Dimensions (H x	W x D)	mm	246 × 840 × 840	246 × 840 × 840			
Weight		kg(lbs)	22 (48)	22 (48)			
Connection	Liquid (Flare)		9.52	9.52			
pipe diameter	Gas (Flare)	mm	15.88	15.88			
Drain hose diam	eter (I.D./O.U.)	1	25	/ 32			
Cassette	Model name		UTG-U	GGA-W			
Grille	Dimensions (HxWxD)	mm	50 × 95	50 × 950 × 950			
	Weight	kg(lbs)	5.5 (12)				

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].

#### Dimensions (Unit:mm)

![](_page_23_Figure_28.jpeg)

![](_page_23_Figure_29.jpeg)

## High lift drain pump Ceiling panel 850mm

#### Optional parts

UTY-LRHGB1
UTR-YDZK
UTG-BKXA-W
UTZ-KXRA
UTG-AKXA-W

![](_page_23_Figure_35.jpeg)

## 4-way Flow Cassette (Large type)

Models Models AUXA18GALH AUXA30GATH AUXA36GATH AUXA24GALH AUXA30GALH AUXA45GATH AUXA34GALH AUXA54GATH AUXA36GALH AUXA45GALH AUXA54GALH

![](_page_24_Picture_3.jpeg)

![](_page_24_Picture_4.jpeg)

#### Feature

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

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

![](_page_24_Figure_8.jpeg)

![](_page_24_Figure_9.jpeg)

#### Improvement of the airflow distribution

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

![](_page_24_Picture_12.jpeg)

![](_page_24_Picture_13.jpeg)

![](_page_24_Picture_14.jpeg)

happens by spreading airflow widely

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

![](_page_24_Figure_17.jpeg)

High ceiling mode

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

Model code	The maximum height from floor to ceiling (m)					
Model code	Standard mode	High ceiling mode				
18	3.0	3.5				
24	3.0	3.5				
30	3.2	3.6				
34	3.2	3.6				
36	3.2	4.2				
45	3.2	4.2				
54	3.2	4.2				

One way installation

![](_page_24_Picture_22.jpeg)

#### **Specifications**

Model name			AUXA18GALH	AUXA24GALH	AUXA30GALH AUXA30GATH	AUXA34GALH	AUXA36GALH AUXA36GATH	AUXA45GALH AUXA45GATH	AUXA54GALH AUXA54GATH
Power source					Sinc	gle-phase, ~220-240V, 6	50Hz		
Capacity	Cooling	LAM	5.6	7.1	9.0	10.0	11.2	12.5	14.0
	Heating	KVV	6.3	8.0	10.0	11.2	12.5	14.0	16.0
Input power		W	51	51	59	77	80	99	119
Airflow rate	High		1,420 (394)	1,420 (394)	1,600 (444)	1,750 (486)	1,800 (500)	1,900 (528)	2,000 (556)
	Med	m <sup>3</sup> /h	1,230 (342)	1,230 (342)	1,300 (361)	1,300 (361)	1,300 (361)	1,370 (381)	1,370 (381)
	Low	1 (11.5)	1,100/1,000*1(306/278)	1,100/1,000*1(306/278)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)	1,100 (306)
Sound pressure	High		40	40	40	43	44	46	47
level	Med	dB(A)	36	36	38	38	38	39	39
	Low	1	33/31*1	33/31*1	33	33	33	33	33
Dimensions (H x	W x D)	mm	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840	288 × 840 × 840
Weight		kg(lbs)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)	27 (59)
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88	19.05	19.05	19.05
Drain hose diam	eter (I.D./O.U.)	1				25/32			
Cassette	Model name					UTG-UGGA-W			
Grille	Dimensions (HxWxD)	mm				50 × 950 × 950			
	Weight	kg(lbs)				5.5 (12)			

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

#### Dimensions (Unit:mm)

![](_page_24_Figure_28.jpeg)

## High lift drain pump Ceiling panel 850mm

#### **Optional parts**

IR Receiver Unit :	UTY-LRHGB1
Air Outlet Shutter Plate :	UTR-YDZK
Panel Spacer :	UTG-BKXA-W
Insulation Kit for High Humidity :	UTZ-KXRA
Wide Panel :	UTG-AKXA-W

![](_page_24_Figure_35.jpeg)

## Mini Duct

Models (With drain pump) ARXK07GCLH ARXK09GCLH ARXK12GCLH ARXK14GCLH ARXK18GCLH ARXK24GCLH

![](_page_25_Picture_3.jpeg)

ARXK18

ARXK24

Models (Without drain pump) ARXK07GALH ARXK09GALH ARXK12GALH ARXK14GALH ARXK18GALH ARXK24GALH

![](_page_25_Picture_5.jpeg)

![](_page_25_Picture_6.jpeg)

![](_page_25_Picture_7.jpeg)

Feature

DC FAN

#### Optimum design in harmony with interior decoration

Thin and short-depth body makes the clipped ceiling design simple.

![](_page_25_Picture_11.jpeg)

#### Advanced performance by new shaped heat exchanger and airflow

Air blower is improved so that velocity distribution is optimum in accordance with the heat exchanger shape. Wide range and uniform airflow can be received due to heat exchanger.

![](_page_25_Picture_14.jpeg)

#### Easy drain design even at narrow ceiling

Models with drain pump: Drainage to the distant drain port is possible. Models without drain pump: Both sides drainage is possible.

#### Models with drain pump

![](_page_25_Picture_18.jpeg)

#### Models without drain pump

![](_page_25_Picture_20.jpeg)

For models without drain pump, both sides drainage is possible and drain design is easy.

#### 6-speed control\*

Multistep airflow speed control allows this model to install in a quiet location.

![](_page_25_Picture_24.jpeg)

6-Step Speed High Med-H Med Med-L Low

\* Compatible Remote Controller is as follows: UTY-RNRG22 / UTY-RLRG / UTY-RSRG / UTY-RHRG / UTY-DCGG / UTY-DTGGZ1 / UTY-ALGX / UTY-APGX

#### **Specifications**

Model name		ARXK07GCLH ARXK07GALH	ARXK09GCLH	ARXK12GCLH ARXK12GALH	ARXK14GCLH	ARXK18GCLH	ARXK24GCLH ARXK24GALH			
Power source										
Capacity	Capacity Cooling		2.2	2.8	3.6	4.5	5.6	7.1		
	Heating	kW	2.8	3.2	4.0	5.0	6.3	8.0		
Input power	GCLH / GALH	w	28/21	28/21	35/28	66 / 59	73/66	80 / 73		
	High		460 (128)	460 (128)	550 (153)	760 (211)	930 (258)	1,160 (322)		
	Me-Hi		440 (122)	440 (122)	520 (144)	660 (183)	840 (233)	1,060 (294)		
Airflow rato	Med	m³/h	420 (117)	420 (117)	480 (133)	560 (156)	740 (206)	960 (267)		
AIIIIUW Iale	Me-Lo	(l/s)	400 (111)	400 (111)	450 (125)	490 (136)	640 (178)	860 (239)		
	Low	1	370 (103)	370 (103)	410 (114)	410 (114)	540 (150)	750 (208)		
	Quiet		340 (94)	340 (94)	340 (94)	340 (94)	470 (131)	610 (169)		
Static pressure ra	inge	0-	0 to 30	0 to 30	0 to 30	0 to 50	0 to 50	0 to 50		
Standard static p	ressure	Ра	10	10	10	15	15	15		
	High		26	26	29	34	33	32		
	Me-Hi		25	25	27	31	30	30		
Sound pressure	Med	dB(A)	24	24	26	28	28	28		
level	Me-Lo		23	23	25	26	26	27		
	Low	]	22	22	24	24	24	25		
	Quiet	]	21	21	22	22	22	22		
Dimensions (H x W x D)		kg(lbs)	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 700 × 450	198 × 900 × 450	198 × 1,100 × 450		
Weight	GCLH / GALH	mm	15.5 (34) / 15 (33)	15.5 (34) / 15 (33)	16 (35) / 15.5 (34)	16 (35) / 15.5 (34)	19 (42) / 18.5 (41)	22.5 (50) / 22 (49)		
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52		
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88		
Drain hose diam	eter (LD /0 LL)	]	25/32							

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].

#### Dimensions (Unit:mm)

![](_page_25_Figure_32.jpeg)

 Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose connection

	ARXK07-14	ARXK18	ARXK24
А	P100×6=600	P100×8=800	P100×10=1000
В	650	850	1050
С	752	952	1152
D	650	850	1050
Ε	665	864	1064
F	700	900	1100

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![](_page_25_Picture_39.jpeg)

![](_page_25_Picture_40.jpeg)

\*Models (With drain pump

#### **Optional parts**

Remote Sensor Unit : IR Receiver Unit :

UTY-XSZX UTB-YWC Auto Louver Grille Kit : UTD-GXTA-W (for ARXK07/09/12/14GCLH ARXK07/09/12/14GALH) UTD-GXTB-W (for ARXK18GCLH ARXK18GALH) UTD-GXTC-W (for ARXK24GCLH ARXK24GALH)

![](_page_25_Figure_46.jpeg)

Refrigerant pipe flare connection (Liquid)

② Refrigerant pipe flare connection (Gas)

③ Drain hose connection

	ARXK07-14	ARXK18	ARXK24
A	P100×6=600	P100×8=800	P100×10=1000
В	650	850	1050
С	752	952	1152
D	650	850	1050
Ε	665	864	1064
F	700	900	1100

## Slim Duct / Slim Concealed Floor

Models	Models
ARXD07GALH	ARXD07GATH
ARXD09GALH	ARXD09GATH
ARXD12GALH	ARXD12GATH
ARXD14GALH	ARXD14GATH
ARXD18GALH	ARXD18GATH
ARXD24GALH	ARXD24GATH

![](_page_26_Picture_3.jpeg)

![](_page_26_Picture_4.jpeg)

DC FAN

#### Feature

#### Slim design

With a slim indoor design, this indoor can be installed in narrow ceiling spaces.

![](_page_26_Figure_8.jpeg)

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

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

![](_page_26_Picture_11.jpeg)

#### High lift drain pump

![](_page_26_Figure_13.jpeg)

#### Air-intake

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

![](_page_26_Figure_16.jpeg)

#### Flexible installation

![](_page_26_Figure_19.jpeg)

![](_page_26_Picture_20.jpeg)

Floor concealed

![](_page_26_Picture_22.jpeg)

![](_page_26_Picture_23.jpeg)

#### Filter (Accessory)

![](_page_26_Figure_27.jpeg)

![](_page_26_Figure_28.jpeg)

#### Auto Louver Grille Kit (Option)

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

![](_page_26_Figure_31.jpeg)

#### **Specifications**

Model name			ARXD07GALH ARXD07GATH	ARXD09GALH ARXD09GATH	ARXD12GALH ARXD12GATH	ARXD14GALH ARXD14GATH	ARXD18GALH ARXD18GATH	ARXD24GALH ARXD24GATH
Power source					Single-phase, ~	220-240V, 60Hz		
Capacity	Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating		2.8	3.2	4.0	5.0	6.3	8.0
Input power		W	44	50	54	92	83	122
Airflow rate	High	24	550 (153)	600 (167)	600 (167)	800 (222)	940 (261)	1,330 (369)
	Med	m3/h (l/s)	490 (136)	550 (153)	510 (142)	710 (197)	840 (233)	1,240 (344)
	Low	(	440 (122)	480 (133)	450 (125)	610 (169)	750 (208)	1,100 (306)
Static pressure ra	nge	Da	0 to 90	0 to 50				
Standard static p	ressure	10	25	25	25	25	25	25
Sound pressure	High		28	29	30	34	34	35
level	Med	dB(A)	25	26	27	32	32	32
	Low		22	24	24	28	28	29
Dimensions (H x	W x D)	mm	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 700 × 620	198 × 900 × 620	198 × 1,100 × 620
Weight		kg(lbs)	17 (37)	17 (37)	18 (40)	18 (40)	22 (48)	26 (57)
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	9.52	9.52
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	15.88	15.88
Drain hose diam	eter (I.D./O.U.)				25	/ 32		

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.

#### Dimensions (Unit:mm)

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

![](_page_26_Figure_38.jpeg)

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#### **Optional parts**

Remote Sensor Unit : UTY-XSZX IR Receiver Unit :

UTB-YWC Auto Louver Grille Kit : UTD-GXTA-W (for ARXD07/09/12/14GALH ARXD07/09/12/14GATH) UTD-GXTB-W (for ARXD18GALH ARXD18GATH) UTD-GXTC-W (for ARXD24GALH ARXD24GATH)

	ARXD07-14	ARXD18	ARXD24
A	700	900	1100
В	650	850	1050
С	734	934	1134
D	650	850	1050
E	P100x6=600	P100x8=800	P100x10=1000
F	18xØ5	22xØ5	26xØ5
G	574	774	974

## **Medium Static Pressure Duct**

ModelsModelsARXA24GBLHARXA24GBTHARXA30GBLHARXA30GBTHARXA36GBLHARXA36GBTHARXA45GBLHARXA45GBTH

![](_page_27_Picture_3.jpeg)

![](_page_27_Picture_4.jpeg)

#### Feature

#### Slim & Compact design

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

![](_page_27_Figure_8.jpeg)

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

It is possible to change of static pressure range 0 to 150Pa.

#### Can be installed for various location

![](_page_27_Figure_12.jpeg)

![](_page_27_Picture_14.jpeg)

Static pressure range

0 to 150 Pa

It can also be installed in wide spade when high static pressure is required, such as for offices.

![](_page_27_Picture_16.jpeg)

#### Easy setting by using remote controller

The change of static pressure range is possible by remote controller

![](_page_27_Picture_19.jpeg)

**Easy maintenance** See below for the case of rear suction type

![](_page_27_Figure_21.jpeg)

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

![](_page_27_Picture_24.jpeg)

#### Specifications

Model name			ARXA24GBLH ARXA24GBTH	ARXA30GBLH ARXA30GBTH	ARXA36GBLH ARXA36GBTH	ARXA45GBLH ARXA45GBTH					
Power source				Single-phase, ~220-240V, 60Hz							
Capacity	Cooling	LW	7.1	9.0	11.2	12.5					
	Heating	N.VV	8.0	10.0	12.5	14.0					
Input power		W	190	188	312	312					
Airflow rate	High	24	1,280 (356)	1,280 (356)	1,720 (478)	1,720 (478)					
	Med	m3/h (l/s)	1,210 (336)	1,210 (336)	1,670 (464)	1,670 (464)					
	Low	(	1,130 (314)	1,130 (314)	1,600 (444)	1,600 (444)					
Static pressure ra	nge	Da	30 to 150	30 to 150	30 to 150	30 to 150					
Standard static p	ressure	10	100	100	100	100					
Sound pressure	High		38	40	43	43					
level	Med	dB(A)	36	38	41	41					
	Low		34	36	39	39					
Dimensions (H x	W x D)	mm	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700	270 × 1,135 × 700					
Weight		kg(lbs)	39 (86)	42 (93)	42 (93)	42 (93)					
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52					
pipe diameter	Gas (Flare)	mm	15.88	15.88	19.05	19.05					
Drain hose diam	eter (I.D./O.U.)			25 /	32						

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.

#### Dimensions (Unit:mm)

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

![](_page_27_Figure_31.jpeg)

![](_page_27_Figure_32.jpeg)

Side view (L)

Refrigerant piping flare connection (Liquid) :

 ${f O}$  Refrigerant piping flare connection (Gas) :

③ Drain piping connection (Drain pipe)

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#### Installation styles

Embedded in Ceiling

![](_page_27_Picture_40.jpeg)

![](_page_27_Figure_41.jpeg)

![](_page_27_Figure_42.jpeg)

#### **Optional parts**

Remote Sensor Unit : UTY-XSZX Long Life Filter : UTD-LF25NA Flange (Square) : UTD-SF045T Flange (Round) : IR Receiver Unit : Drain Pump Unit :

UTD-RF204 UTB-YWC UTZ-PX1NBA

![](_page_27_Figure_47.jpeg)

## High Static Pressure Duct

Models

ARXC36GBTH ARKC45GATH ARKC60GATH ARXC72GBTH ARXC90GBTH ARXC96GATH

(45/60)

![](_page_28_Picture_4.jpeg)

ARXC36 ARKC45 ARKC60

![](_page_28_Picture_6.jpeg)

![](_page_28_Picture_7.jpeg)

Feature

DC AC FAN FAN

#### Static pressure selection

By using DC fan motor, it is possible to change static pressure range from 0 to 200Pa (ARXC36) / 300Pa (ARXC72/90/96). The change of static pressure range is possible by function setting with wired / wireless remote controller.

![](_page_28_Picture_11.jpeg)

#### Low energy consumption by high efficiency DC fan motor

Improved motor efficiency from previous model.

![](_page_28_Picture_14.jpeg)

![](_page_28_Picture_15.jpeg)

![](_page_28_Picture_16.jpeg)

(ARXC72 / 90 / 96 type)

#### (Compact size & Light weight) A compact size and lightweight

indoor unit has been developed by reducing the basic chassis and the overall material weight.

Easy installation

![](_page_28_Picture_20.jpeg)

(ARXC36, ARKC45 / 60 type)

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	Jeci	IICa	CIUIIS	
_				

Model name			ARXC36GBTH	ARKC45GATH	ARKC60GATH	ARXC72GBTH	ARXC90GBTH	ARXC96GATH			
Power source				Single-phase, ~220-240V, 60Hz							
Capacity	Cooling	LAM	11.2	12.5	18.0	22.4	25.0	28.0			
	Heating	KVV	12.5	14.0	20.0	25.0	28.0	31.5			
Input power		W	207	752	806	681	819	838			
Airflow rate	High		1,990 (553)	3,000 (833)	3,350 (931)	3,900 (1,083)	4,300 (1,195)	4,850 (1,347)			
	Med	m <sup>3</sup> /h	1,680 (467)	2,700 (750)	2,850 (792)	3,300 (917)	4,000 (1,111)	4,250 (1,181)			
	Low	("3)	1,330 (369)	2,300 (639)	2,550 (708)	3,000 (833)	3,500 (972)	3,600 (1,000)			
Static pressure ra	nge	Da	0 to 200	100 to 250	100 to 250	0 to 300	0 to 300	0 to 300			
Standard static p	ressure	Pd	100	100	100	150	150	150			
Sound pressure	High		42	47	48	47	48	48			
level	Med	dB(A)	36	43	44	43	46	45			
	Low	1	32	40	41	40	44	42			
Dimensions (H x	W x D)	mm	400 × 1,050 × 500	400 × 1,050 × 500	400 × 1,050 × 500	450 × 1,587 × 700	450 × 1,587 × 700	550 × 1,587 × 700			
Weight		kg(lbs)	40 (88)	46 (101)	46 (101)	84(185)	84(185)	105(231)			
Connection	Liquid		9.52 (Flare)	9.52 (Flare)	9.52 (Flare)	12.70 (Brazing)	12.70 (Brazing)	12.70 (Brazing)			
pipe diameter	Gas	mm	19.05 (Flare)	19.05 (Flare)	19.05 (Flare)	22.22 (Brazing)	22.22 (Brazing)	22.22 (Brazing)			
Drain hose diam	eter (I.D./O.U.)	1				/ 32					

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

#### Models : ARXC36 / ARKC45 / ARKC60

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

![](_page_28_Figure_29.jpeg)

#### Dimensions (Unit:mm) Models: ARXC36 / ARKC45 / ARKC60

#### Models: ARXC72 / ARXC90

324 1. . 9 295 Side view (

![](_page_28_Figure_33.jpeg)

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

 Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose

(Unit:mm)

![](_page_28_Figure_38.jpeg)

![](_page_28_Figure_39.jpeg)

(ARXC72 / 90 type)

#### **Optional parts**

Long-Life Filter : IR Receiver Unit : Remote Sensor Unit : UTY-XSZX

UTD-LF60KA (For ARXC36GBTH, ARKC45/60GATH) UTB-YWC

![](_page_28_Figure_44.jpeg)

![](_page_28_Figure_46.jpeg)

 Refrigerant pipe flare connection (Liquid) ② Refrigerant pipe flare connection (Gas) ③ Drain hose

## Large Airflow Duct

Models

ARXN18GATH ARXN24GATH ARXN30GATH ARXN34GATH ARXN36GATH ARXN45GATH

![](_page_29_Picture_4.jpeg)

![](_page_29_Picture_5.jpeg)

#### Feature

#### Large airflow volume

It can be installed in places such as early replacement of air required by large airflow volume.

![](_page_29_Picture_9.jpeg)

![](_page_29_Picture_10.jpeg)

#### Installation styles

![](_page_29_Picture_12.jpeg)

# 8 F

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

![](_page_29_Picture_15.jpeg)

#### **Specifications**

			A DVALAGE ATU	10/112/01711	10/1/20 ( 17/1		10/01266170	
Model name		ARXN18GATH	ARXN24GATH	ARXN30GATH	ARXN34GATH	ARXN36GATH	ARXN45GATH	
Power source					Single-phase, ~	220-240V, 60Hz		
Capacity	Cooling	- kw	5.6	7.1	9.0	10.0	11.2	12.5
	Heating		6.3	8.0	10.0	11.2	12.5	14.0
Input power		W	154	205	306	432	572	572
Airflow rate	High	24	2,280 (633)	2,640 (733)	3,200 (889)	3,720 (1,033)	4,120 (1,145)	4,120 (1,145)
	Med	1 m³/h (l/s)	-	-	-	-	-	-
	Low	(	-	-	-	-	-	-
Static pressure ra	inge	Da	50 to 100	50 to 150	50 to 250	50 to 250	50 to 300	50 to 300
Standard static p	ressure		50	50	50	50	60	60
Sound pressure	High		35	37	40	43	45	45
level	Med	dB(A)	-	-	-	-	-	-
	Low	1	-	-	-	-	-	-
Dimensions (H x	W x D)	mm	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700	450 × 1,587 × 700
Weight		kg(lbs)	84 (185)	84 (185)	84 (185)	84 (185)	84 (185)	84 (185)
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52	9.52	9.52
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88	15.88	19.05	19.05
Drain hose diam	eter (I.D./O.U.)	1			25	32		

Note : Specifications are based on the following conditions.

Note: Specifications are based on the rolowing 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]. \* Large Airflow Duct can be connected to V-III series only.

#### Dimensions (Unit:mm)

![](_page_29_Figure_21.jpeg)

![](_page_29_Figure_22.jpeg)

#### **Optional parts**

Remote Sensor Unit : UTY-XSZX

![](_page_29_Figure_27.jpeg)

![](_page_29_Figure_28.jpeg)

## Floor / Ceiling

Models ABHA12GATH ABHA14GATH ABHA18GATH ABHA24GATH

![](_page_30_Picture_3.jpeg)

![](_page_30_Picture_4.jpeg)

#### Feature

DC FAN

#### Flexible installation

#### Example for floor installation Floor console

![](_page_30_Picture_8.jpeg)

#### 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

![](_page_30_Picture_12.jpeg)

4 steps selectable

Example for ceiling installation Under ceiling

![](_page_30_Picture_14.jpeg)

#### High power DC fan motor

- High power
- Wide rotation range
- High efficiency

![](_page_30_Figure_19.jpeg)

#### Compact design

Symmetrical, slim and compact design.

(Unit : mm)

![](_page_30_Picture_23.jpeg)

#### **Specifications**

Model name			ABHA12GATH	ABHA14GATH	ABHA18GATH	ABHA24GATH					
Power source				Single-phase, ~220-240V, 60Hz							
Capacity	Cooling	LM	3.6	4.5	5.6	7.1					
	Heating	KVV	4.0	5.0	6.3	8.0					
Input power		W	30	42	74	99					
Airflow rate	High		660 (183)	780 (216)	1,000 (277)	1,000 (277)					
	Med	m³/h (l/s)	570 (158)	640 (177)	720 (199)	820 (227)					
	Low		490 (136)	550 (152)	580 (161)	680 (188)					
Sound pressure	High		36	40	46	47					
level	Med	dB(A)	32	36	39	42					
	Low	1	28	34	35	37					
Dimensions (H x	W x D)	mm	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655	199 × 990 × 655					
Weight		kg(lbs)	25 (55)	26 (57)	26 (57)	27 (59)					
Connection	Liquid (Flare)		6.35	6.35	9.52	9.52					
pipe diameter	Gas (Flare)	mm	12.70	12.70	15.88	15.88					
Drain hose diameter (I.D./O.U.)				25/32							

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].

#### Dimensions (Unit:mm)

3 Drain piping connection

![](_page_30_Figure_29.jpeg)

#### Auto-closing louvre

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

#### Super vane

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

## Ceiling

Models ABHA30GATH ABHA36GATH ABHA45GATH ABHA54GATH

![](_page_31_Picture_3.jpeg)

![](_page_31_Picture_4.jpeg)

#### Feature

#### Installation

![](_page_31_Picture_7.jpeg)

![](_page_31_Picture_8.jpeg)

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

![](_page_31_Picture_10.jpeg)

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

#### Double auto swing and wide airflow

Auto airflow direction and auto swing

which suspends the indoor

unit from the ceiling.

![](_page_31_Figure_14.jpeg)

![](_page_31_Picture_15.jpeg)

#### Long airflow

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

![](_page_31_Picture_18.jpeg)

#### High power DC fan motor

• High power • Wide rotation range • High efficiency

![](_page_31_Picture_21.jpeg)

#### Fresh air intake

![](_page_31_Figure_23.jpeg)

#### Slim & Compact design

![](_page_31_Picture_25.jpeg)

#### Specifications

Model name			ABHA30GATH	ABHA36GATH	ABHA45GATH	ABHA54GATH			
Power source			Single-phase, ~220-240V, 60Hz						
Capacity	y Cooling		9.0	11.2	12.5	14.0			
	Heating	KVV	10.0	12.5	14.0	16.0			
Input power		W	66	85	131	180			
Airflow rate	High		1,630 (452)	1,690 (469)	2,010 (558)	2,270 (629)			
	Med	1 m³/h (l/s)	1,370 (379)	1,400 (389)	1,600 (444)	1,780 (493)			
Low	(")	1,140 (316)	1,170 (325)	1,230 (342)	1,280 (355)				
Sound pressure	High		42	45	48	51			
level	Med	dB(A)	38	38	42	45			
	Low	1	33	34	35	36			
Dimensions (H x	W x D)	mm	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700	240 × 1,660 × 700			
Weight		kg(lbs)	46 (101)	48 (106)	48 (106)	48 (106)			
Connection	Liquid (Flare)		9.52	9.52	9.52	9.52			
pipe diameter	Gas (Flare)	mm	15.88	19.05	19.05	19.05			
Drain hose diameter (I.D./O.U.)		25/32							

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].

#### Dimensions (Unit:mm)

![](_page_31_Figure_31.jpeg)

![](_page_31_Figure_32.jpeg)

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

![](_page_31_Figure_34.jpeg)

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#### High lift drain pump

Optional drain pump unit allows flexible installation design.

![](_page_31_Figure_38.jpeg)

#### **Optional parts**

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

![](_page_31_Figure_42.jpeg)

## Wall Mounted

Models (EEV internal) Models (EEV internal) Models (EEV external) ASHA07GACH ASHA07GATH ASHE07GACH ASHA09GACH ASHA09GATH ASHE09GACH ASHA12GATH ASHE12GACH ASHA12GACH ASHA14GACH ASHA14GATH ASHE14GACH

![](_page_32_Picture_3.jpeg)

## DC FAN

#### Feature

#### Filter features

High quality air conditioning by incorporation of high performance filter.

![](_page_32_Picture_8.jpeg)

#### Ion 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.

![](_page_32_Picture_11.jpeg)

#### Apple-catechin Filter

Apple-catechin filter uses static electricity to clean fine particles and dust in the air.

#### Auto swing louvre

![](_page_32_Figure_15.jpeg)

#### Deodorizing effect (Odor reduction rate)

![](_page_32_Figure_17.jpeg)

Deodorization Test

Compact size

30

0

#### Powerful output even compact design

60

120 (min)

![](_page_32_Picture_20.jpeg)

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.

![](_page_32_Picture_22.jpeg)

790mm

#### New style high power DC fan motor

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

![](_page_32_Picture_29.jpeg)

#### **Specifications**

Model name			ASHA07GACH ASHA07GATH	ASHA09GACH ASHA09GATH	ASHA12GACH ASHA12GATH	ASHA14GACH ASHA14GATH	ASHE07GACH	ASHE09GACH	ASHE12GACH	ASHE14GACH
Dower source			715111107 01111	Single phase at	220 240V 60Hz			Single phase a	220 2401/ 6047	
Tower source				Sillyie-pilase, -	220-2407, 00112			Single-phase, ~	220-2407, 00112	
Capacity	Cooling	kw	2.2	2.8	3.6	4.5	2.2	2.8	3.6	4.5
	Heating		2.8	3.2	4.1	5.0	2.8	3.2	4.1	5.0
Input power		W	17	18	22	34	15	16	21	34
Airflow rate	High		490 (136)	500 (139)	560 (156)	670 (186)	490 (136)	500 (139)	560 (156)	680 (189)
	Med	m <sup>3</sup> /h	450 (125)	450 (125)	480 (133)	490 (136)	450 (125)	450 (125)	480 (133)	490 (136)
	Low	(115)	370/420*1 (103/117*1)	370/420*1 (103/117*1)	420 (117)	420 (117)	370/420*1 (103/117*1)	370/420*1 (103/117*1)	420 (117)	420 (117)
Sound pressure	High		35	36	39	44	34	35	38	43
level	Med	dB(A)	33	33	35	37	32	32	34	35
	Low	1	27 / 31*1	27 / 31*1	31	32	26 / 30*1	26 / 30*1	30	30
Dimensions (H x	W x D)	mm	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215	275 × 790 × 215
Weight		kg(lbs)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)	9 (20)
Connection	Liquid (Flare)		6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
pipe diameter	Gas (Flare)	mm	12.70	12.70	12.70	12.70	12.70	12.70	12.70	12.70
Drain hose diameter (I.D./O.U.)				13.8 / 15.	8 to 16.7		13.8 / 15.8 to 16.7			
EV Kit (option)			-	-	-	-	UTR-EV09XB	UTR-EV09XB	UTR-EV14XB	UTR-EV14XB

Note : Specifications are based on the following conditions.

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

#### Dimensions (Unit:mm)

![](_page_32_Figure_35.jpeg)

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

#### Easy maintenance

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

![](_page_32_Picture_40.jpeg)

#### Symmetrical design

Symmetrical, clean design that suits all interiors.

![](_page_32_Figure_44.jpeg)

## Wall Mounted

Models Models ASHA18GACH ASHA18GATH ASHA24GACH ASHA24GATH ASHA30GACH ASHA30GATH

![](_page_33_Picture_3.jpeg)

![](_page_33_Picture_4.jpeg)

#### Feature

#### More comfort airflow by adopting power diffuser

"Vertical airflow"

provides powerful floor level heating

![](_page_33_Picture_9.jpeg)

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

![](_page_33_Figure_11.jpeg)

#### Air conditioner filter features

![](_page_33_Figure_13.jpeg)

High quality air conditioning by incorporation of high performance filter.

![](_page_33_Picture_15.jpeg)

Apple-catechin Filter

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

Apple-catechin filter uses static electricity to clean fine particles and dust in the air.

#### Double auto swing

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

![](_page_33_Figure_21.jpeg)

![](_page_33_Figure_22.jpeg)

#### Compact & Slim design

By using DC fan motor, compact design is realized.

![](_page_33_Figure_25.jpeg)

#### **Specifications**

Model name			ASHA18GACH	ASHA24GACH	ASHA30GACH				
moder name			ASHA18GATH	ASHA24GATH	ASHA30GATH				
Power source			Single-phase, ~220-240V, 60Hz						
Capacity	pacity Cooling		5.6	7.1	8.0				
	Heating		6.3	8.0	9.0				
Input power		W	32	60	91				
Airflow rate	High		840 (233)	1,100 (305)	1,240 (343)				
	Med	m <sup>3</sup> /h	770 (213)	910 (252)	980 (271)				
	Low	(")	690 (191)	730 (202)	770 (213)				
Sound pressure	High		41	48	52				
level	Med	dB(A)	39	43	45				
	Low	1	35	35	35				
Dimensions (H x	W x D)	mm	320 × 998 × 228	320 × 998 × 228	320 × 998 × 228				
Weight		kg(lbs)	15 (33)	15 (33)	15 (33)				
Connection	Liquid (Flare)		9.52	9.52	9.52				
pipe diameter	Gas (Flare)	mm	15.88	15.88	15.88				
Drain hose diameter (I.D./O.U.)		]	12/16						

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].

![](_page_33_Figure_30.jpeg)

#### Easy maintenance

Simplification of drain pan cleaning improves maintenance-ability.

![](_page_33_Figure_35.jpeg)

Refrigerant piping flare connection (Liquid)

O Refrigerant piping flare connection (Gas)

③ Drain hose connection

## User friendly control system provides individual control to centralized control

room, centralized control by floor or by building, or centralized energy saving air conditioning control for large buildings.

A variety of air conditioning management schemes are available to match the application, such as linking with the building control system, linking with a single split models, and using various interfaces.

CONTROL SYSTEM CONTROL SYSTEM OVERVIEW INDIVIDUAL CONTROLLER CENTRALIZED CONTROLLER CONVERTOR / ADAPTOR

# AIRSTAGE<sup>™</sup> CONTROL S

GETM Office 01 Set Temp. 26.0°C Room Temp. 26.0°C SYSTEATATO O/I

![](_page_34_Picture_7.jpeg)

The AIRSTAGE control system can perform air conditioning control of individual room, centralized control by floor or by building, or centralized energy saving air

![](_page_34_Picture_9.jpeg)

## **BEST CONTROL SOLUTION FOR EACH PROPERTY**

Fujitsu General provides the best control solutions suitable for the various properties.

SHOP								
Туре	Individual Control		Centraliz	ed Control		In	tegrating Control (Interfa	ce)
a trans					_			
	Wired Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor
P.	UTY-RNRGZ2, UTY-RLRG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•	•	•	•	•			
Limited control for staff (RC Prohibition, Room temp set point limitation etc.)			•	•	•	•	٠	٠
Group Control		•	•	•	•			
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)					•			
Remote Management				•	•			
Manage multiple sites				•	•			
Monitor energy consumption					•			
Control third party products					•			
Integrate FGL A/C into BMS						•	•	•

#### HOTEL

Туре	Individual Control				Centralized Control				Integrating Control (Interface)			
11111 m 4						<b></b>						
ACC NO.	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet <sup>®</sup> Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRGZ2, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for hotel guest	•	•	•									
Centralized A/C control for common space				•	•	•	•	•	•	•	•	
Limited control for hotel guests					•	•	•	•	•	•	•	
Remote Management						•	•					
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with window contact												•
Interlock with key-card												•

OFFICE												
Туре		Individual Contro	bl		Centralize	ed Control			Integrating Control (Interface)			
PP PP STOR												
- Contractor	Wired Remote Controller	Simple Remote Controller	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller	BACnet® Gateway	Network Convertor for LonWorks®	MODBUS® Convertor	KNX® Convertor	External Switch Controller
	UTY-RNRGZ2, UTY-RLRG	UTY-RSRG, UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-APGXZ1, UTY-ALGXZ1	UTY-ABGXZ1, UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for office staff	•	•	•	•	•							
Automatic control of A/C (Schedule timer, Weekly timer etc.)	•		•	•	•	•	•	•				
Centralized A/C control for management					•	•	•	•	•	•	•	
Limited control for office staff (RC Prohibition, Room temp set point limitation etc.)					•	•	•	•	•	•	•	
Advanced Energy Saving (Peak cut, Indoor unit rotation operation etc.)							•	•				
Remote Management						•	•					
Energy Charge Apportionment						•	•	•				
Monitor energy consumption							•					
Control third party products							•					
Integrate FGL A/C into BMS								•	•	•	•	
Interlock with door contact												•
Interlock with human sensor for meeting room												•

## CONTROL SYSTEM OVERVIEW

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

#### Air Conditioning Individual Control NEW Office of Hook Set Targe For Asia Call 26.0 vc Asia Rear Targe Asia Asia Rear Targe Asia Asia State Targe Asia Asia Wired Remote Controller (Touch panel) UTY-RNRGZ2 NEW Wired Remote Controller UTY-RNRG NEW Simple Remote Controller UTY-RSRG UTY-RHRG Without operation mode NEW Wireless **Remote Controller** UTY-DTGGZ1 UTY-LNHG **IR Receiver Unit** UTB-YWC For Duct type 410 UTY-LRHGB1 For Cassette type For Cassette For Duct 200 9 9 9 9

Air Conditioning **Centralized** Control Remote Monitoring side Internet or Public Telephone Line , h. USB Adaptor \*1 (Field supplied) 1600 System Controller Software UTY-APGXZ1 / UTY-ALGXZ1 (Lite edition) \*: Lite edition is max. controllable 400 indoor units Remote/ Monitoring side Internet or Public Telephone Line , h. 400 **Touch Panel Controller Central Remote** Controller 100 UTY-DCGG **Group Remote** Controller UTY-CGGG Network Convertor UTY-VGGXZ1

For Light Commercial • Small VRF

![](_page_36_Picture_6.jpeg)

#### **Convertor / Adaptor** For external device

![](_page_36_Figure_8.jpeg)

![](_page_36_Figure_10.jpeg)

![](_page_36_Figure_11.jpeg)

# <section-header>

## **COMPARISON TABLE OF CONTROLLERS**

ltem			128							_	
		Wired Remote Controller (Touch panel)	Wired Remote Controller	Simple Remote Controller	Simple Remote Controller *1	Wireless Remote Controller	Group Remote Controller	Central Remote Controller	Touch Panel Controller	System Controller Lite	System Controller
Mode	name	UTY-RNRGZ2	UTY-RLRG	UTY-RSRG	UTY-RHRG	UTY-LNHG	UTY-CGGG	UTY-DCGG	UTY-DTGGZ1	UTY-ALGXZ1	UTY-APGXZ1
Max.	controllable remote controller groups	1	1	1	1	1	8	100	400	400	1600
Max.	controllable indoor units	16	16	16	16	16	128	100	400	400	1600
Max.	controllable groups	-	-	-	-	-	_	16	400	400	1600
	On / Off	•	•	•	•	•	•	٠	۲	•	٠
	Operation mode setting	•	•	•	_	•	•	•	•	•	•
ion	Fan speed setting	•	•	•	•	•	•	•	•	•	•
	Room temp. setting	•	•	•	•	٠	•	•	•	•	•
ol fu	Room temp. set point limitation	•	•	•	•	_	-	•	•	•	•
ntr	Test operation	•	•	•	•	٠	-	•	•	-	-
00	Up/down air direction flap setting	•	•	•	•	•	-	•	•	•	•
ji	Right/left air direction flap setting	•	•	-	-	•	-	•	•	•	•
tio	Individual louver control	•	-	-	-	=	-	-	•	-	-
ipu	Group setting	-	-	-	-	_	-	•	•	•	•
L CO	RC prohibition	-	-	-	-	-	-	•	•	•	•
Ai	Anti freeze setting	•	-	-	-	-	-	•	•	•	•
	Set temp. auto return	•	•	-	-	-	-	-	•	-	-
	Economy mode setting	•	•	-	-	•	-	•	•	•	•
	Human sensor control	•	-	-	-	-	-	-	•	•	•
	Error	•	•	•	•		•	•	•	•	•
	Defrosting	•	•	•	•	-	-	•	•	•	•
	Current time	•	•	-	-	٠	•	•	•	•	•
	Day of week	•	•	-	-	-	•	-	•	•	•
	R.C. prohibition	•	•	•	•	-	•	•	•	•	•
lay	Cooling/heating priority	•	•	•	•	_	•	•	•	•	•
dsi(	Address display	•	•	•	•		•	•	•	•	•
	Room temp	•	-	•	•		-	-	•	-	-
	Multi language	•	-	-	-		-	•	•	•	•
	Summer time	•	-	-	-		-	•	•	•	•
	Name registration		-	-	-		-	•	•	•	•
	2D floor (2D building display	•	_	•	•		-	•	•	-	-
	20 noon layout 7 50 building display	Wook	Wook	_	_			- Week	-	-	Veer
	Schedule timer On/off, Temp, Mode Times per day	8	4		_		4	20	20	144	144
ner		-	-	_			_	-	-	-	_
Ë	Program timer	_		_	_		_	-	_	_	_
	Auto off timer	•	•			•			-		
	Day off	•	•	_	_	_	_	•	•	•	•
	Min. unit of timer setting (Minutes)	10 • 30	30	_	_	5	10	10	10	10	10
	Status monitoring system	=	_	_	_	_	_	•	•	•	•
	Electricity charge apportionment	_	_	_	_	_	_		0	0	•
	Error history	•	•	_	_	_	•	•	•	•	•
	Emergency stop	-	-	_	_	_		•* <sup>2</sup>	•* <sup>2</sup>	_	
rol	Remote management	-	-	_	_	_	_	_	•	0	•
ont	Energy saving management	-	-	_	-	_	-	-	-	0	0
	E-mail notification for malfunction	-	-	_	-	_	-	-	•	•	•
	Key lock	Child lock	Child lock	_	-	_	Child lock	• Password setting	• Password setting	• Password setting	• Password setting
	Low noise mode	-	-	_	_	_	_	_	•	_	_

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## Wired Remote Controller (Touch Panel)

#### **NEW UTY-RNRGZ2**

Easy operation by high-definition large STN-LCD touch panel screen

- Easy finger touch operation with LCD panel
- Built-in weekly/Daily timer (ON/OFF, Temp., Mode)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Control up to 16 indoor units
- Corresponds to 12 different languages (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Greek, Portuguese, Turkish and Dutch)
- 2-wire type

#### **Functions**

#### High performance and compact size

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

![](_page_38_Figure_14.jpeg)

#### Accurate and comfortable control

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

![](_page_38_Figure_17.jpeg)

#### Backlight

- Backlight enable easy operation in a darkened room.
- For the lighting time of Backlight, 30 or 60 seconds can be set.
- Backlight activates while the buttons are operated and goes off 30 or 60 seconds after the operation stops.

![](_page_38_Picture_22.jpeg)

#### Set Temp. Fan ∞ 26.0 ೀ Auto Status Menu

#### Various convenient functions

Displays setting status and Limitations • The remote controller settings can be pasily chockod

cosity checked		Cool 26.
Status         Page 1/.2           Air Flow Investore         []           I         Image: Construction           Construction         []           Mathematics         Acti Freeze           []         On           []         On           []         Mathematics           []         Mathematics           []         Mathematics	Status         Page 2/ 2           R2.Phyloition         100 100 100 100 100 100 100 100 100 100	
Statis         Page 2: 1           Service Tables         -           - Group Tables         -		

#### Summer Time display

 This function can be set easily from Menu screen

![](_page_38_Picture_29.jpeg)

#### Child lock

• Lock / unlock method: Push the ON/OFF button and the screen (4 seconds)

![](_page_38_Picture_32.jpeg)

#### Name Registration

• Remote controller names can be registered in the remote controller screen. This makes it easy to identify the indoor unit you want to control in the room.

![](_page_38_Picture_35.jpeg)

#### Various energy saving control

#### Custom Auto

- Maintains 2 separate set points for heating and cooling.
- Automatically changes mode between heating and cooling.
- \* This function is not available for some models

Cooling set temp. 27°C, Heating set temp. 26°C

![](_page_38_Figure_42.jpeg)

#### Auto OFF timer

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

![](_page_38_Figure_47.jpeg)

Ex.) At interval time hour (17:00 to 24:00) to prevent forgetting to turn off Set off time : 1 hour

#### 2 schedules Weekly Timer

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

![](_page_38_Picture_52.jpeg)

#### Set Temperature Auto Return

- The setting temperature automatically returns to the previous setting temperature.
- The time range in which the set temperature can be changed is 10 to 120 minutes.

#### Set Temperature Upper and Lower Limit Setting

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

#### Specifications

Model name	UTY-RNRGZ2
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 20.4
Weight (g)	220

DC12V is supplied by indoor unit

![](_page_38_Picture_62.jpeg)

16

![](_page_38_Figure_64.jpeg)

#### Simplified installation

#### Uses non-polar 2-wire type

• The faulty wiring can be prevented by using non-polar 2-wire.

![](_page_38_Figure_68.jpeg)

#### Auto Address Setting/Setting Position Notification

- Reduce errors and install time compared with the current specification Rotary SW
- When will be set remote controller groups, can also be set automatically new Wired remote controller address
- After auto address setting of new wired remote controller groups, what number can also confirm addresses

![](_page_38_Figure_73.jpeg)

#### Easy Maintenance

#### **Error History Display**

- The errors that occur in the indoor unit or remote controller are saved as a history.
- A maximum of 32 error incidents can be saved

![](_page_38_Figure_78.jpeg)

## Wired Remote Controller

#### UTY-RLRG

- Various timer setup (ON / OFF / WEEKLY) are possible.
- The room temperature can be controlled by detecting the temperature accurately with Built-in thermo sensor.
- When a failure occurs, the error code is displayed.
- Error history. (Last 16 error codes can be accessed.)
- 2-wire type

![](_page_39_Picture_8.jpeg)

#### Functions

#### High performance and compact size

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

![](_page_39_Figure_12.jpeg)

#### Auto-off timer

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

![](_page_39_Figure_15.jpeg)

#### Weekly timer function

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

![](_page_39_Figure_18.jpeg)

#### High visibility and easy operation

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

![](_page_39_Figure_23.jpeg)

16

#### Set temperature auto return

- The setting temperature automatically returns to the previously set temperature.
- The time range in which the set temperature can be changed is 30 to 240 minutes.

![](_page_39_Figure_27.jpeg)

#### Set temperature upper and lower limit setting

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

![](_page_39_Figure_30.jpeg)

## Simple Remote Controller

#### NEW UTY-RSRG NEW UTY-RHRG (Without Operation mode)

#### Compact remote controller provides access to basic functions

- Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.
- Stylish design: Simple design to match the stylish interior.
- Large LCD screen & simple operation buttons
- Backlight: White colored backlight on monitor enable easy operation in dark.
   2-wire type

#### Functions

#### Corresponding to various applications

#### • Vertical louver control:

Vertical air flow direction can be adjusted for Duct types with auto louver and Cassette types, which are installed in hotels and conference rooms, can be adjusted.

#### • Room temperature set point limitation:

The Simple Remote Controller can manage to energy saving operation in small buildings without the central control unit.

#### • Built in room temperature sensor:

The Simple Remote Controller detects actual room temperature and controls room climate accuracy.

#### Specifications

Model name	UTY-RLRG
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 × 120 × 17
Weight (g)	170

DC12V is supplied by indoor unit. 78 **OGENEROL** 

## Specifications Model name

Model name	UTY-RSRG	UTY-RHRG				
Power Supply	DC 12V					
Dimensions (H x W x D) (mm)	120 x 75 x 19.4					
Weight (g)	eight (g) 120					
C12V is supplied by the indoor unit.						

![](_page_39_Picture_52.jpeg)

![](_page_39_Picture_53.jpeg)

UTY-RSRG

![](_page_39_Picture_55.jpeg)

UTY-RHRG Without Operation mode

![](_page_39_Picture_57.jpeg)

![](_page_39_Picture_58.jpeg)

![](_page_39_Figure_59.jpeg)

![](_page_39_Figure_60.jpeg)

![](_page_39_Figure_61.jpeg)

## Wireless Remote Controller

#### UTY-LNHG

Simple and sophisticated operations with a choice of 4 daily timers

• A single controller controls up to 16 indoor units.

![](_page_40_Picture_5.jpeg)

#### 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.

![](_page_40_Figure_14.jpeg)

#### Heating operation

When the sleep timer is set, the set temperature automatically drops  $1\,{}^{*}C$  every 30 minutes. The set temperature can drop to a max. of  $4\,{}^{*}C$ 

![](_page_40_Figure_17.jpeg)

#### Easy installation and operation

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

![](_page_40_Picture_20.jpeg)

16

#### Wide and precise

![](_page_40_Picture_22.jpeg)

#### Address setting

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

![](_page_40_Figure_25.jpeg)

## **IR Receiver Unit**

#### **UTB-YWC**

Necessary to control for all Duct types\* by Wireless Remote Controller \*Only Large Airflow Duct can not be connected to IR Receiver Unit.

- ${\mbox{ \bullet}}$  Up to 16 indoor units can be controlled with one remote controller.
- Suitable for hotels or offices as it is easily operated with no complex functions.

#### Functions

![](_page_40_Figure_32.jpeg)

#### Specifications

Model name	UTB-YWC
Power Supply	DC 5V
Dimensions (H x W x D) (mm)	145 x 90 x 30
Weight (g)	150

## **IR Receiver Unit**

#### UTY-LRHGB1

Cassette type indoor unit can be controlled with Wireless Remote Controller

#### Functions

![](_page_40_Figure_39.jpeg)

#### **Specifications**

Model name	UTY-LRHGB1
Power Supply	DC 5V
Dimensions (H x W x D) (mm)	193.9×193.9×31.2
Weight (g)	140

#### Specifications

Model name	UTY-LNHG
Power Supply	1.5V (R03 / LR03 / AAA) × 2
Dimensions (H x W x D) (mm)	170 x 56 x 19
Weight (g)	85

![](_page_40_Picture_45.jpeg)

![](_page_40_Picture_46.jpeg)

Duct Type Indoor Unit

![](_page_40_Picture_48.jpeg)

## Group Remote Controller

#### UTY-CGGG

Group control of indoor units with simple operation

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

(Network Convertor allows up to 4 Group Remote Controllers)

![](_page_41_Picture_8.jpeg)

#### Functions

#### Control up to 8 remote controller groups

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

![](_page_41_Picture_12.jpeg)

![](_page_41_Figure_13.jpeg)

#### High performance and compact size

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

![](_page_41_Figure_16.jpeg)

#### **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.

![](_page_41_Figure_22.jpeg)

#### UTY-DCGG

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

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

#### Functions

#### System overview

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

![](_page_41_Picture_35.jpeg)

#### Functions

0.04 Bob Ten. Fm

Ar Ras Destrait K? Ar File Destrate

• Diverse control of indoor units

#### Remote controller prohibition (All, On / Off, Mode, Temp, Timer, Filter)

#### Easy Installation

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

#### Setting pattern 1

![](_page_41_Figure_45.jpeg)

![](_page_41_Figure_46.jpeg)

#### **Specifications**

Model name	UTY-DCGG				
	Control Panel	Power Supply Unit			
Power Supply	DC 5 V	100-240V, 60Hz, Single phase			
Dimensions (H x W x D) (mm)	120 x 162 x 25.7	99 x 135 x 39.2			
Weight (g)	308	355			
<pre><pre><pre><pre>centre</pre></pre></pre></pre>					
Packing List	Control Panel / Power Supply Unit / Connecting cable, etc.				

#### **Specifications**

Model name	UTY-CGGG
Power Supply	DC 12V
Dimensions (H x W x D) (mm)	120 x 120 x 18
Weight (g)	200

![](_page_41_Figure_52.jpeg)

![](_page_41_Picture_55.jpeg)

100

16

• Error history

• Automatic clock adjustment

![](_page_41_Figure_60.jpeg)

• Automatic or manual indoor unit registration

![](_page_41_Figure_62.jpeg)

![](_page_41_Picture_63.jpeg)

## **Touch Panel Controller**

#### **NEW UTY-DTGGZ1**

- Large-sized 7.5-inch TFT color
- LCD Easy finger touch operation
- Stylish shape and design to suit all application
- Up to 400 indoor units can be controlled
- Selectable 2 display types (Icon / List) in monitoring mode
- Supports 7 different-languages , English, Chinese, French, German, Spanish, Russian, Polish.
- Mounted with LAN interface for remote control & operation, external input / output with emergency stop and batch ON / OFF

![](_page_42_Picture_10.jpeg)

#### Functions

#### Control & monitoring from anywhere

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.

Top Up Down List	Setting
Image: Construction of the second	Schedule
8 Cool 8 21.5 ℃ 1 21.0 ℃ 1 26.0 ℃ 1 26.0 ℃	
Room 101 Restrant Entrance	Select All
Single         Single<	[0] Clear All
Meeting 1 Off B On B	
36 Heat 1 21.5°C	Coperation
Conference A Conference B Parking lot	
\$6 Heat \$215'C \$6 Auto \$220'C \$6 Auto	On On
Group ©Schedule @Op. Controlled \$8Mode AFror ⊡rilter Sign ∛Op. Restricted & SetTemp	Off

#### Easy maintenance

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

![](_page_42_Picture_21.jpeg)

#### Easy installation

- Touch Panel Controller is easily mounted to the wall. • Flat back surface allows to be installed wherever it is
- needed.
- No additional component is required for installation

![](_page_42_Picture_26.jpeg)

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

![](_page_42_Picture_28.jpeg)

#### Control & monitoring from anywhere

- Control and monitor Fujitsu's air conditioner via LAN or Internet.
- Allow user or tenant to manage only assigned equipment by their PC or tablet from anywhere.
- Error contents are notified automatically by E-mail at error occurrence to handle the trouble promptly.

![](_page_42_Figure_33.jpeg)

Operation mode setting

![](_page_42_Picture_35.jpeg)

Flexible grouping

Individual control

Schedule control

#### Smart Phone

Model	Browser
Nexus 6P (Android 7.1.1)	Google Chrome 5.5
iphone7 (iOS 10.1)	Safari 10

#### Flexible access permission for Point each level user.

Administrator can register multiple user to permit which indoor unit(s) and which function can access.

#### Additional languages function

Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish as standard. Additional language can be integrated on remote device by

creating language database.

Additional language is displayed on only the remote device, and Touch Panel Controller cannot be added other languages.

VRF network system

Not only operations but also detail

settings such as schedule or group

settings can be operated from

remote locations.

![](_page_42_Picture_49.jpeg)

Indoor units operation monitoring

#### Tablet

Model	Browser		
ipad Pro 9.7inch (iOS 10.2.1)	Safari 10		

![](_page_42_Picture_53.jpeg)

#### Monitoring from web site

![](_page_42_Picture_55.jpeg)

![](_page_43_Figure_1.jpeg)

\*: Electricity meter (1unit) can be connected to external input connector of the TPC unit. In this case, electricity meter cannot be connected to outdoor unit simultaneously.

#### Automatic summer time setting

#### **Providing function**

- 1) Schedule setting of summer time setting
- It prevents the user from forgetting to set summer time. In addition, it reduces the time and labor of user.

#### Automatic clock adjustment

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

![](_page_43_Figure_9.jpeg)

#### Outdoor low noise operation

Users can choose from 4 low noise levels, depending on the installation environment.

The operaion time can be set using the timer.

![](_page_43_Picture_13.jpeg)

![](_page_43_Figure_14.jpeg)

#### **FUNCTIONS SUMMARY**

	UTY-DTGGZ1	Monitoring side
Air conditioning control function	on	
On / Off	•	•
Operation mode setting	•	•
Fan speed setting	•	•
Room temp. setting	•	•
Room temp. set point limitation	•	•
Test operation	•	•
Up/down air direction flap setting	•	•
Right/left air direction flap setting	•	•
Individual louver control	•*1	•
Group setting	•	•
RC prohibition	•	•
Anti freeze setting	•	•
Set temp. auto return	_	•
Various energy saving control	_	•
Economy mode setting	•	•
Human sensor control	_	•
Display	·	
Error	•	•
Defrosting	•	•
Current time	•	•
Day of week	•	•
R.C. prohibition	•	•
Cooling/heating priority	•	•
Address display	•	•
Room temp	•	•
Multi language	•	•
Summer time	•	•
Time zone setting	•	•
Name registration	•	•
Backlight	•	•
Language setting	7	7+other

•: Supported O: Optional function -: Not supported yet

\*1 Only setting cancellation can be operated. \*2 This function is available only through external input control.

~					
- <b>S</b>	no	rıt	102	tin	nc
	pe	CII.	ica	ιu	115

Model name	UTY-DTGGZ1
Power Supply	100-240V 60Hz, Single phase
Dimensions (H x W x D) (mm)	260 x 246 x 54
Weight (g)	2,150
Interface	Transmission / LAN / USB / EXT IN / EXT OUT / Reset SW

![](_page_43_Picture_23.jpeg)

![](_page_43_Picture_24.jpeg)

UTY-DTGGZ1

Monitoring side

Timer						
	Period	Year	Year			
Schedule timer	On/off, Temp, Mode, Times per day	20	20			
On/off timer		_				
Sleep timer		_	_			
Program timer		_	_			
Auto off timer		_	•			
Day off		•	٠			
Min. unit of timer setting (Minutes)		10	10			
Control						
Status monitoring	system	•	•			
Electricity charge apportionment		0	0			
Error history		•	•			
Emergency stop		•*2	•*2			
Remote managem	ent	—	•			
Energy saving mar	nagement	_	_			
E-mail notification	for malfunction	_	•			
Key lock		• Password setting	_			
Low noise mode		٠	٠			

![](_page_44_Picture_1.jpeg)

#### **NEW UTY-APGXZ1**

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

• Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor units can be controlled.

• In addition to air conditioning precision control function, central remote control, electricity charge calculation, schedule management, and energy saving functions are strengthened and building manager and owner needs are met.

#### System Controller Lite Software

#### **NEW UTY-ALGXZ1**

System Controller Lite has standard functions sufficient for air conditioner management in small and medium scale buildings

• Up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units can be controlled.

• In addition to air conditioning precision control function, a variety of management software is available as an option to give customers a wide range of choice.

#### Functions

#### User friendly view and operation

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

![](_page_44_Figure_15.jpeg)

When Modbus Adaptor (locally purchased) is connected to PC, the electric facilities supported by Modbus can be controlled centrally. Wasteful electricity charge by forgetting to turn off and patrol activities can be reduced in the entire building.

![](_page_44_Figure_18.jpeg)

#### Diverse operation management & Data management

#### Schedule management

- Annual schedules can be set for each remote controller group / user defined group. • Start / stop, operating mode, remote controller prohibition, and temperature settings can be set up to 143 times per day at 10 minute intervals for up to 101 configurations for each remote controller
- group.
- Settings can be made for periods straddling midnight.
- Allows programming of special settings for holidays, including public holidays, for a complete year.
- Low noise operation of outdoor unit can be scheduled.

#### Diverse control of indoor and outdoor unit

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

#### Remote controller prohibition

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

#### Automatic clock adjustment

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

#### Electricity charge apportionment

#### Electricity charge apportionment calculation framework

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

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

![](_page_44_Picture_39.jpeg)

![](_page_44_Picture_40.jpeg)

![](_page_44_Figure_44.jpeg)

#### Error display & E-mail notification

Error is notified with popup message, audible sound and E-mail real time when error occurs. Error for the past 1 year are logged and can be reviewed later.

#### Data base import/export

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

#### **Operating & control record**

Displays the history of operation status and control.

![](_page_44_Figure_51.jpeg)

![](_page_45_Figure_1.jpeg)

#### Energy saving management

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

![](_page_45_Figure_4.jpeg)

Energy Saving Management Main Screen

#### Indoor unit rotation operation

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

![](_page_45_Figure_8.jpeg)

![](_page_45_Figure_9.jpeg)

Indoor unit rotation screen

**Option** for System Controller Lite UTY-PLGXR2

![](_page_45_Figure_13.jpeg)

**Option** for System Controller UTY-PEGX **Option** for System Controller Lite UTY-PLGXE2

#### Peak cut operation

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

![](_page_45_Figure_17.jpeg)

#### Outdoor unit capacity save

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

![](_page_45_Figure_20.jpeg)

#### FUNCTIONS SUMMARY

			System controller		System controller lite				
Function		Туре	UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
	Max. VRF networks s	upported	4	-	1	-	-	-	-
System	Max. indoor unit / re	mote controller groups per VRF network	400	-	400	-	-	-	-
specification	Max. outdoor units per System controller		100	-	100	-	-	-	-
	Max. Indoor units / remote controller groups per System controller		1600	-	400	-	-	-	-
	Max. outdool units per system controller		400	-	100	-	-	-	-
	Number of building	/ 1 site	10	-	10	-	-	-	-
	Number of floor por 1 site		20	-	-	-	-	-	-
	Number of floor por 1 huilding		50	-	-	-	-	-	-
Site	3D graphical layout	view	50	-				-	-
supervision	2D graphical layout	view		-	-	-		-	
	List display	iicii	•	-	•	-	-	-	-
	Tree display		•	-	•	-	-	-	-
	Group display		•	-	•	-	-	-	-
Free	Error notification		•	-	•	-	-	-	-
EIIUI	Audible alarm		•	-	•	-	-	-	-
manayement	Error e-mail notifica	tion	•	-	•	-	-	-	-
	Error history			-		-	-	-	-
History	Operation history		•	-	•	-	-	-	-
	Control history		•	-	•	-	-	-	-
		On/Off	•	-	•	-	-	-	-
		Operation mode	•	-	•	-	-	-	-
		Room temperature	•	-		-	-	-	-
		Fan speed	•	-	•	-	-	-	-
	Individual	Air flow direction	•	-	•	-	-	-	-
	control	Economy mode	•	-	•	-	-	-	-
Operation		Room temperature set point limitation	•	-	•	-	-	-	-
control		lest operation	•	-	•	-	-	-	-
		Antifreeze	•	-	•	-	-	-	-
		Dutdool ullit low holse setting		-		-	-	-	-
	Individual	Remote control promotion setting		-		-	-	-	-
	management	Filter sign reset		-		-	-	-	-
		Momony operation		-		-	-	-	-
	Other	Pattern operation		-		-			
	Annual Schedule			-		-		-	
	Special day setting	Snerial day setting		-		-	-	-	-
	On /off per day		72	-	72	-	-	-	-
Schedule	On / off per week		504	-	504	-	-	-	-
	Day off		•	-	•	-	-	-	-
	Min. unit of timer se	tting (Minutes)	10	-	10	-	-	-	-
	Low noise mode We	ekly schedule	•	-	•	-	-	-	-
	Remote monitoring		•	-	-	•	-	-	-
Remote	Remote operation co	ontrol	•	-	-	•	-	-	-
managemment	Remote function set	ting	•	-	-	•	-	-	-
	Web Remote Control	ller	•	-	-	•		-	-
	Apportionment char	ge/bill calculation	•	-	-	-	•	-	-
Electricity	lenant (block) settin	1g	•	-	-	-	•	-	-
charge	common facilities a	pportionment setting	•	-	-	-	•	-	-
apportionment	Rated power consum	nption allotment setting	•	-	-	-	•	-	-
		n accooling and nearing	-			-	•	-	-
	Electricity meter sup	poned	-		-	-			-
	Poak cut control		-		-	-	-		
Energy	Outdoor unit capacit	N SAVA	-			-	-		
saving	Record of energy say	ing operation				-	-		
management	Energy saving inform	nation	-		-	-			
monogement	Power consumption	Power consumption monitor		•	-	-	-	•	
	Electricity meter sun	ported		•		-	-	•	-
External Device	Monitor		•	-	-	-	-	-	•
Control	Control		•	-	-	-	-	-	•
	Database import/ex	port	•	-		-	-	-	-
Others	Automatic clock adju	istment	•	-	•	-	-	-	-
	Multi language		7 languages	-	7 languages	-	-	-	-

• Available. -: Not available. \*: Power calculation application software is necessary, please contact the local FGL representative.

#### Personal computer system requirements

The required PC specifications are shown in the following table.

	System Controller	System Controller Lite		
Operating system	<ul> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 7 Home Premium (32-bit or 64-bit) SP1, Windows<sup>®</sup></li> <li>Microsoft<sup>®</sup> Windows<sup>®</sup> 8.1 (32-bit or 64-bit), Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit), Windows<sup>®</sup> 8.1 Pro (32-bit or 64-bit), Windows<sup>®</sup> 10 Pro (32-bit [Supported languages] English, Chinese, French, German, Russian, Spanish</li> </ul>	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)</li> <li>[Supported languages] English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>		
CPU	Intel® CoreTM i3 2 GHz or higher			
Memory	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7	• 2 GB or more (for Windows® 7 [32-bit]) • 4 GB or more (for Windows® 7 [64-bit], Windows® 8.1, and Windows® 10)		
HDD	40 GB or more of free space	40 GB or more of free space		
Display	1024 x 768 or higher resolution	1024 x 768 or higher resolution		
Interface	<ul> <li>Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line)</li> <li>USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller)</li> <li>Maximum of 2 USB ports are required for WHITE-USB-KEYWibuKey connection</li> <li>Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface</li> <li>* Maximum number of required USB port depends on the applicable system configuration.</li> </ul>	Ethernet port (for getting access to the Internet using LAN) or Modem (for getting access to the Internet using Public Telephone Line) USB ports (Maximum of 6 ports) (Required only for the Server PC that works as VRF Controller) - Maximum of 4 USB ports are required for WHITE-USB-KEY/WibuKey connection 1 USB port is required for Echelon® U10 USB Network Interface * The maximum number of required USB port depends on the applicable system configuration.		
Graphic accelerator	Microsoft <sup>®</sup> DirectX <sup>®</sup> 9.0c compatible	Microsoft® DirectX® 9.0c compatible		
Software	Adobe® Reader® 9.0 or later	Adobe® Reader® 9.0 or later		
Echelon® U10 USB Network Inte	rface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)re.			

#### <Parking list>

	For System controller		
Туре		Option	
	System controller	Energy manager	System Controlle
Model name	UTY-APGXZ1	UTY-PEGXZ1	UTY-ALGXZ
WHITE-USB-KEY	1	1	1

\*1: Software protection key to be inserted in a USB slot running System Controller or System Controller Lite. System Controller or System Controller Lite may only run on a PC with WHITE-USB-KEY. However, WHITE-USB-KEY is not required for remote VRF Explorer software.

90 ØGENERAL

For System controller Lite er Lite Electricity charge Remote access **Central Control** Energy saving UTY-PLGXR2 UTY-PLGXA2 UTY-PLGXE2 UTY-PLGXX2

## BACnet<sup>®</sup> Gateway

![](_page_46_Picture_2.jpeg)

400

1,600

#### **NEW UTY-ABGXZ1**

WHITE-USB-KEY (Software Protection Key)

![](_page_46_Picture_5.jpeg)

- A maximum of 1600 indoor units with 4 VRF network systems (a maximum of 400 indoor units & 100 outdoor units for one network system) can be connected to one BACnet<sup>®</sup> Gateway.
- It is possible to control or monitor VRF network system from BMS via BACnet® Gateway.
- Compatible with BACnet® (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- Scheduling function, Alarm & Event functions as well as Electricity Change Apportionment function are provided in BACnet® Gateway.
- Connection between VRF network system to personal computer is possible via small U10 USB interface. However, both U10 USB interface & personal computer are field supplied items.
- Corresponds to 7 different languages, English, Chinese, French, German, Spanish, Russian, Polish.

#### Functions

#### Installation example

![](_page_46_Figure_15.jpeg)

#### Personal computer system requirements

	UTY-ABGXZ1		
Operating system	<ul> <li>Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit)</li> <li>[Supported languages]</li> <li>English, Chinese, French, German, Russian, Spanish, and Polish</li> </ul>		
CPU	Intel® CoreTM i3 2 GHz or higher		
Memory	2 GB or more (for Windows® 7 [32-bit])     4 GB or more (for Windows® 7 [64-bit], Windows® 8.1, and Windows® 10)		
HDD	40 GB or more of free space		
Display	1024 x 768 or higher resolution		
Interface	<ul> <li>Ethernet port (for getting access to the Internet using LAN)</li> <li>USB ports (Maximum of 5 ports)</li> <li>1 USB port is required for WHITE-USB-KEY/WibuKey connection</li> <li>Maximum of 4 USB ports are required for Echelon® U10 USB Network Interface</li> <li>* Maximum number of required USB ports depends on the applicable system configurations.</li> </ul>		
Software	Adobe® Reader® 9.0 or later		
•Echelon <sup>®</sup> U10 USB Network Interface – TP	/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)		
<packing list=""></packing>			

 Name and shape
 Quantity
 Application

 WHITE-USB-KEY
 1
 Includes the software and manuals, license for BACnet® Gateway.

![](_page_46_Picture_19.jpeg)

#### **NEW UTY-VBGX**

• BACnet<sup>®</sup> Gateway enables to connect a BMS and FG VRF system.

A maximum of 128 indoor units and 32 refrigerant system can be connected to a single BACnet<sup>®</sup> Gateway.
 Compatible with BACnet<sup>®</sup> (ANSI / ASHRAE-135-2010) application specific controller (B-ASC).

Compatible with BACnet®/IP over Ethernet.

#### Functions

#### Installation example

![](_page_46_Figure_26.jpeg)

#### **Specifications**

Model name	UTY-VBGX
Number of controllable indoor units	128
Number of controllable refrigerant system	32
Number of controllable VRF network	1
Number of connectable units / one VRF network	4

## Network Convertor for LONWORKS®

#### **UTY-VLGX**

 For connection between VRF network system and a LONWORKS<sup>®</sup> open network for management of small to medium-sized BMS and VRF network system.

 The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS\* interface.

Up to 128 Indoor units can be connected to one Network Convertor for LONWORKS®

#### Functions

#### Installation example

![](_page_46_Figure_36.jpeg)

#### **Specifications**

Model name	UTY-VLGX
Power Supply	208-240V 60Hz, Single phase
Power Consumption (W)	4.5
Dimensions $(H \times W \times D)$ (mm)	67 × 288 × 211
Weight (g)	1,500

![](_page_46_Picture_40.jpeg)

Model name	UTY-VBGX
Power Supply	208-240V 60Hz, single phase
Power Consumption (W)	4.6 (max)
Dimensions (H × W × D) (mm)	59.6 × 270.4 × 176
Weight (g)	1,200

![](_page_46_Picture_42.jpeg)

#### Transmission specifications (BMS side)

Transmission speed	78 kbps	
Transceiver	FT-X1 (Echelon <sup>®</sup> Corporation)	
Transmission way form	Free topology	
Terminal resistor	None (It attaches at the terminal of a network.)	

#### **MODBUS®** Convertor 9 UTY-VMGX 100 The MODOBUS Convertor allows a complete integration of air conditioners into MODBUS Networks. • Compact and lightweight design • Direct connection to MODBUS Network 128 • Up to 128 indoor units can be controlled in one MODBUS Convertor • The MODBUS Convertor permits central monitoring and control of air conditioners from BMS or Central Controller. Functions

![](_page_47_Figure_2.jpeg)

#### **Specifications**

Model name	UTY-VMGX
Power Supply	220-240V 60Hz
Input power (W)	Max. 2
Dimensions (H x W x D) (mm)	54 × 260 × 150
Weight (g)	1,100

## **MODBUS®** Interface

#### FJ-RC-MBS-1

The Modbus Interface allows a complete integration of air conditioners into Modbus Networks.

- Simple installation due to small and compact size.
- No separate external power supply required.

• The Modbus Interface permits central monitoring and control of air conditioners from BMS,

#### Functions

![](_page_47_Figure_12.jpeg)

#### **Specifications**

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

## KNX<sup>®</sup> Convertor (for VRF)

#### **NEW UTY-VKGX**

It is possible to control the VRF system from central / home controller via KNX network.

• New KNX Convertor enables to connect central/home controller and FG VRF system.

• A maximum of 128 indoor units and 100 outdoor units can be connected to single KNX Convertor.

![](_page_47_Figure_20.jpeg)

#### **Specifications**

Model name	UTY-VKGX
Power supply	220-240V 60Hz
Power consumption (W)	1.5
Dimensions (H × W × D) (mm)	54 × 260 × 150
Weight (g)	1,200

## **KNX®** Interface

#### FJ-RC-KNX-1i

The KNX Interface allows a complete integration of air conditioners with KNX Network systems.

• Simple installation due to small and compact size.

- No separate external power supply required (just KNX bus power).
- Can be used for single indoor units and group controlled (up to 16) indoor units

#### Functions

IntesisBox®

-----

![](_page_47_Figure_30.jpeg)

70

Model name	
Dimensions (H x W x D) (mm)	
Weight (g)	

94 **OGENEROL** 

![](_page_47_Picture_34.jpeg)

![](_page_47_Picture_35.jpeg)

## Wireless LAN Interface IntesisHome

#### FJ-RC-WIFI-1

- It is the most advanced solution to remotely manage an Air Conditioning system using
- all sort of mobile devices such as Smartphones, Tablets and PC
- No separate external power supply required
- Can be used for single indoor units and group controlled (up to 16) indoor units

![](_page_48_Picture_7.jpeg)

#### Functions

![](_page_48_Figure_9.jpeg)

#### **Basic control**

- Turning the units on and off
- Mode control (Heat, Cool, Dry, Auto, Fan)
- Fan speed setting
- Louver position (Airflow direction setting)

![](_page_48_Picture_15.jpeg)

• Multi Language

• One Scene and Timer

![](_page_48_Picture_16.jpeg)

#### (Application screen image)

#### Functions

**Network Convertor** 

UTY-VTGX (DC power supply type)

UTY-VTGXV (AC power supply type)

• The network convertors are required when connecting single split

• Connectable to both types of 2-wire and 3-wire remote controllers

#### Installation example

system to VRF network system.

• Compact and light weight design

- 2 types of 1 remote controller type and 2 remote controllers type are available.

![](_page_48_Figure_23.jpeg)

- 2-wire and 3-wire type of the wired remote controller can be connectable.
- Power supply (AC220-240V, 50/60Hz) is required for 2 remote controllers type.

![](_page_48_Figure_26.jpeg)

#### **Specifications**

Model name	UTY-VTGX		UTY-VTGXV
Power Supply	polar 3-wire DC12V	non-polar 2-wire DC12V	220-240V 60Hz, Single phase
Input power (W)	Max. 1.2		Max. 3
Dimensions (H x W x D) (mm)	140 × 117 × 43		54 × 260 × 150
Weight (g)	250		1,100

#### Advanced control (Optional functions)

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

#### Notifications and History

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

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

Specifications

![](_page_48_Picture_40.jpeg)

• A central control can be provided for the single split systems. (Up to 100 units of Network Convertor is connectable in one VRF network system)

![](_page_48_Figure_42.jpeg)

## **Network Convertor**

#### UTY-VGGXZ1

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

![](_page_49_Picture_4.jpeg)

#### Functions

#### Used for connecting single split system

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

![](_page_49_Figure_10.jpeg)

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

#### Used for connecting Group Remote Controller

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

![](_page_49_Figure_14.jpeg)

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

#### Specifications

Model name	UTY-VGGXZ1
Power Supply	208-240V 60Hz, Single phase
Power Consumption (W)	8.5
Dimensions (H x W x D) (mm)	67 x 288 x 211
Weight (g)	1,500

## **External Switch Controller**

#### **NEW UTY-TERX**

- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms. · Card-key or other sensor switches are available as a locally purchased parts.
- 2-wire type
- The set temperature can be specified at two points for cooling and heating individually (4 points).

#### Functions

#### Installation example

Human sensor catches movements of people in a room, and operates with lower capacity when people come back to the room, it automatically returns to previous operation mode.

	1 - A H
Cooling/Dry	+2
Set temp.	1
Heating	1
Set temp.	- 4
Normal	poration

#### Specifications

Model name	UTY-TERX
Power Supply	DC 6.5-16V
Dimensions (H × W × D) (mm)	140 × 117 × 43
Weight (g)	250

DC12V is supplied by the indoor unit.

## Signal Amplifier

#### UTY-VSGXZ1

• Transmission Line length can be extended up to 3,600m with multiple Signal Amplifiers.

- Up to 40 signal amplifiers can be installed in a VRF network system.
- A signal amplifier is required,
- (1) When the total wiring length of the transmission line exceeds 500m.
- (2) When the total number of units on the transmission line exceeds 64.

#### Functions

#### Installation example Signal Amplifier

#### **Specifications**

Model name	UTY-VSGXZ1
Power Supply	208-240V 60Hz, Single phase
Power Consumption (W)	4.5
Dimensions (H × W × D) (mm)	67 x 288 x 211
Weight (g)	1,500

![](_page_49_Picture_44.jpeg)

Human sensor equipment needs to be purchased locally. The above example indicated that a signal is sent to this External Switch Controller if human sensor does not detect for 20 minutes. Human sensor is not mounted on the External Switch Controller

![](_page_49_Picture_46.jpeg)

![](_page_49_Figure_47.jpeg)

![](_page_49_Picture_48.jpeg)

![](_page_50_Picture_0.jpeg)

STORY ED

## EFFECTIVE HEAT EXCHANGE AND SIMULTANEOUS FRESH AIR VENTILATION

High Efficiency and low noise levels are achieved by using a highly efficient heat exchange process. A comfortable air conditioned space is achieved by conveniently selecting whether to use heat exchange or normal ventilation setting, according to the requirements of the conditioned space.

#### Outdoor Air Unit

DX-Kit for airhandling applications

Outdoor Air Unit range

Airflow rate (m <sup>3</sup> /h)	1080	1680
Model code	054	072
Outdoor Air Unit	ARXH054GTAH	ARXH072GTAH

# VENTILATION

![](_page_50_Picture_9.jpeg)

![](_page_50_Figure_10.jpeg)

![](_page_50_Picture_11.jpeg)

## **Outdoor Air Unit**

Models ARXH054GTAH ARXH072GTAH ARXH096GTAH

![](_page_51_Picture_3.jpeg)

![](_page_51_Picture_4.jpeg)

ARXH054GTAH

![](_page_51_Picture_6.jpeg)

ARXH096GTAH

Feature

#### One VRF system can provide air conditioning and air supply at the same time.

![](_page_51_Picture_10.jpeg)

#### High energy savings and flexible duct design by using DC motor

• Greatly reduces electricity consumption by adopting permanent magnet compared to when using an AC motor.

![](_page_51_Picture_13.jpeg)

- Compared with AC motor, changing the speed makes it possible to respond flexibly to the external static pressure from 50 Pa to 240 Pa. Even if damper equipment is not used, static pressure can be adjusted and duct design is easy.
- Static pressure can be set easily using wired remote controller.

![](_page_51_Figure_16.jpeg)

![](_page_51_Figure_17.jpeg)

\* Make sure the connected capacity is within the range of 50% to 100% of the outdoor unit capacity. In addition, if there are mixed connections with indoor units, make the Outdoor Air Unit connection capacity 30% or less of the outdoor unit capacity.

#### Top class compact design

• Top class lightweight compact design at just 425 mm in height, 55 kg in weight for ARXH072 type. This unit can be installed easily even at narrow space.

![](_page_51_Figure_21.jpeg)

(ARXH072 type)

#### Various Controller

Supplied variety of controllers as options, such as individual controller, central controller, and building management controller.

#### Individual Controller

![](_page_51_Picture_26.jpeg)

#### Specifications

Pated flow rate			1000 m <sup>3</sup> /h	1500 m <sup>3</sup> /h	2000 m <sup>3</sup> /b
Madel No.					
Model No.			AKXHU54GIAH	AKXHU54GIAH AKXHU72GIAH	
Power source	wer source Single-phase, ~220-240V, 60Hz Single-phase, ~220-240V, 60Hz		Single-phase, ~220-240V, 60Hz		
Capacity	Cooling	LW/	14.0	22.4	28.0
	Heating	N.V.V	8.9	13.9	17.4
Input Power	Cooling / Heating	W	179	292	370
Airflow Rate		m³/h	1,080	1,680	2,100
Static Pressure	Standard (range)	Ра	185 (50-185)	200 (50-200)	200 (50-240)
Sound Pressure L	evel	dB(A)	42	44	47
Dimensions (H x	W x D)	mm	425×1,367×572	425×1,367×572	450×1,583×700
Weight	Weight kg		48	55	71
Connection Pipe Diameter (Small / Large)		mm	Ø9.52/Ø19.05	Ø12.70/Ø22.22	Ø12.70/Ø22.22
Operation	Cooling	€DB	5 to 43	5 to 43	5 to 43
Range	Heating	CDD	-7 to 21	-7 to 21	-7 to 21
Refrigerant			R410A	R410A	R410A

Note : Specifications are based on the following conditions. Cooling : Outdoor temperature of 33°CDB / 28°CWB. Heating : Outdoor temperature of 0°CDB / -2.9°CWB. Pipe length : 7.5 m Voltage : 230 [V].

#### Dimensions (Unit:mm)

![](_page_51_Figure_32.jpeg)

#### **Central Controller**

![](_page_51_Picture_35.jpeg)

Group

Remote Controller

![](_page_51_Picture_36.jpeg)

Ron

![](_page_51_Picture_37.jpeg)

![](_page_51_Picture_38.jpeg)

Touch Pane Controlle

![](_page_51_Picture_40.jpeg)

System Controlle ystem Controller Lite (Software)

\* The temperature setting is discharged air temperature setting. The air volume is set to a constant speed.

## **DX-Kit** for air handling applications

Models Control unit UTY-VDGX

EEV unit UTP-VX30A UTP-VX60A UTP-VX90A

These kits enable other manufacturers air handling units (AHU) and fan coil units (FCU) to be incorporated into a Fujitsu VRF system or, be connected to a dedicated Fujitsu VRF outdoor unit as a 1:1 system to control outside air ventilation (AHU) or room temperature (FCU).

![](_page_52_Figure_5.jpeg)

Control unit UTY-VDGX

Feature

#### Multiple temperature sensors optimally control the air handling unit and fan coil unit.

![](_page_52_Figure_8.jpeg)

When connecting to an air handling unit, the supply air temperature is controlled by the discharge sensor.

![](_page_52_Figure_10.jpeg)

When connecting to a fan coil unit, the room temperature is controlled by the return air temperature sensor.

![](_page_52_Figure_12.jpeg)

#### Supports a wide range of capacity classes

• 2 EEV units can be connected in parallel and up to 20 HP (50 kW) large capacity units. (Separation Tube of UTP-LX180A is required.) • Connectable capacity range: 5 kW to 50 kW

![](_page_52_Figure_15.jpeg)

#### A variety of controls to match the application

• Central control using our VRF controllers or central management controllers

![](_page_52_Figure_18.jpeg)

• Central control from external controllers

![](_page_52_Figure_20.jpeg)

**Functions Summary** 

#### Inputs

- ON/OFF
- Setting temperature
- Capacity demand
- Heating / Cooling operation mode
- Fault information

#### Outputs

- ON/OFF indication • Fan ON/OFF indication
- Thermo ON/OFF indication
- Defrost indication
  - Fault indication

#### Installation Limitation

<ul> <li>Connectable VRF series : All VRF</li> <li>Connectable DX-Kit system capacity range : 50 to 100% of the outdoor unit capacity</li> <li>Connectable DX-Kit system capacity range with indoor units : 30% or less of the outdoor unit capacity</li> <li>Max. wiring length from control unit : 10 m</li> <li>Max. piping length between EEV unit and indoor unit : 5 m</li> <li>Outdoor installation : Control unit (IP54 class) and EEV unit can be installed at an outdoor space.</li> </ul>	
[For 2EEV units connection (option)] • Separation Tube : UTP-LX180A	

Specifications

EEV unit UTP-VX30A UTP-VX60A			UTP-V	/X90A	UTP-V	(90A×2							
Power source				_			Single-phase, ~	220-240V, 60Hz					
Connectable capa	acity class	kW	5.0	6.3	8.0	10.0	12.5	14.0	20.0	25.0	40.0	50.0	
	Cooling		5.6	6.3	8	10	12.5	14	22.4	25	40	50.4	
Capacity	Cooling	cooling	LW	(5.1-5.9)	(6.0-7.1)	(7.2-9.0)	(9.1-11.1)	(11.2-13.2)	(13.3-18.0)	(18.1-23.7)	(23.8-28.0)	(28.1-44.7)	(44.8-50.4)
Capacity	Hosting	KVV	6.3	7.1	9	11.2	14	16	25	28	45	56.5	
neating		(5.7-6.7)	(6.8-8.0)	(8.1-10.0)	(10.1-12.4)	(12.5-15.0)	(15.1-20.0)	(20.1-26.5)	(26.6-31.5)	(31.6-49.9)	(50.0-56.5)		
Airflow Rate(Refe	erence value)	m³/h	1,060	1,200	1,520	1,600	2,000	2,240	3,560	4,000	6,400	8,000	
Dimensions (H×W×D) mm		160 × 220 × 90						(160 × 22	0 × 90)× 2				
Weight		kg	2					2 :	× 2				
Connection pipe d	liameter(Liquid)	mm			Ø9	.52				Ø12	2.70		

EEV unit	UTY-VDGX		
Power source		Single-phase, ~220-240V, 60Hz	
Dimensions (H×W×D) mm		400 × 400 × 120	
Weight	kg	10	

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 Voltage : 230 [V].

![](_page_52_Figure_41.jpeg)

• Possible to control via a Modbus enabled BMS by using optional interface.

![](_page_52_Figure_44.jpeg)

![](_page_52_Figure_45.jpeg)

![](_page_52_Figure_46.jpeg)

![](_page_53_Picture_0.jpeg)

## **AIRSTAGE**<sup>TM</sup> OPTIO

## Auto Louver Grille Kit (Option)

#### Models UTD-GXTA-W UTD-GXTB-W UTD-GXTC-W

![](_page_53_Picture_4.jpeg)

#### Feature

#### **Flexible Control**

- Operation with indoor unit Auto Louver can be operated by synchronizing remote controller of indoor unit.
- UP and Down auto swing • Auto airflow direction and auto swing • 4 steps selectable
- Auto-closing louver When operation of indoor unit is stopped, the louver will automatically close.

![](_page_53_Figure_10.jpeg)

#### Specifications

Model name Applicable Indoor Unit			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W		
			ARXD07/09/12/14GALH ARXD07/09/12/14GATH ARXK07/09/12/14GCLH ARXK07/09/12/14GALH	ARXD18GALH ARXD24GALH ARXD18GATH ARXD24GATH ARXK18GCLH ARXK24GCLH ARXK18GALH ARXK24GALH			
Power source				Connecting with Control box of indoor unit	•		
Fixing of Auto Lo	uver Grille			Screw fixing to Flange or Square Duct			
Extension Square	e Duct Limit		1	I.Om (Max. duct length between indoor unit and Grille	2)		
Net Dimension     mm (inch)		mm (inch)	180x683x[84+9]         180 x 883 x (84+9)           [7-3/32 x 26-7/8 x (3-5/16+11/32)]         [7-3/32 x 34-3/4 x (3-5/16+11/32)]         [7-3/32		180 x 1083 x (84+9) [7-3/32 x 42-5/8 x (3-5/16+11/32)]		
Weight	Net	kg	2.0 (4.4)	2.5 (5.6)	3.0 (6.7)		
	Gross	(lb.)	3.0 (6.7)	3.5 (7.8)	4.0 (8.9)		
Color		<u> </u>		White	1		
Louver Motor			Stepping Motor				
Accessories			Fitting Flame, etc.				
Operation	eration °C (°F)		18 to 32 (64 to 90)				
Range	cooling	% RH		80% or less			
	Heating	°C (°F)		16 to 30 (60 to 88)			

\*: The Auto Louver Grille Kit can also be installed to ARXD07/09/12/14/18/24LATH revision code B models. Please refer to the Design & Technical manual for "revision code " details.

![](_page_53_Picture_14.jpeg)

Closed louver
Opened louver

#### Dimensions

![](_page_53_Figure_18.jpeg)

Unit: mm

Model Name	W1	W2	H1	H2	D1	D2
UTD-GXTA-W	683	645				
UTD-GXTB-W	883	845	180	148	9	84
UTD-GXTC-W	1,083	1,045				

## **OPTIONAL PARTS LIST**

<u>C</u>	Controllers / Interface															
				Cassette				D	Duct Indoor unit						Wall Mounte	d
			4-way Compact	4-way (slim)	4-way (Large)	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Stati	ic Pressure	Ceiling / Floor	Ceiling	_	EEV external	_
Туре			AUXB 07/09/12/14/ 18/24GALH AUXB 07/09/12/14/ 18/24GATH	AUXD 18/24 GALH AUXD 18/24 GATH	AUXA 18/24/30/34/ 36/45/54GALH AUXA 30/36/45/54 GATH	ARXK 07/09/12/14/ 18/24GCLH	ARXK 07/09/12/14/ 18/24GALH	ARXD 07/09/12/14/ 18/24GALH ARXD 07/09/12/14/ 18/24GATH	ARXA 24/30/36/45 GBLH ARXA 24/30/36/45 GBTH	ARXC 36/72/90 GBTH ARXC 96 GATH	ARKC 45/60 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH ASHA 18/24/30 GATH
_				_												
Controllers	Wired Remote			UTY-RNRGZ2												
	Controller	(28) <sup>-21</sup>							UTY-I	RLRG						
	Simple Remote Controller	2-wire type						UTY-R	SRG, UTY-RHRG,	) UTY-RSKG, UTY	/-RHKG					
	Wireless Remote Controller								UTY-L	NHG						
	Group Remote Controller								UTY-CGGG +	UTY-VGGXZ1						
Central Remote Controller																
	Touch Panel Controller	-							UTY-D	TGGZ1						
	System Controller, System Controller Lite								UTY-APGXZ1,	UTY-ALGXZ1						
Interface	BACnet Gateway								UTY-ABGXZ	, UTY-VBGX						
	Network Convertor for LONWORKS								UTY-'	/LGX						
	MODBUS Convertor								UTY-V	) /MGX						
	MODBUS Interface			● FJ-RC-MBS-1				FJ-RC-	MBS-1	FJ-RC- (ARXC72/9 ARKC45/60	MBS-1 0/96GATH / IGATH only)			FJ-RC-MBS-	-1	
	KNX Convertor			UTY-VKGX												
	KNX Interface			FJ-RC-KNX-1i         FJ-RC-KNX-1i           FJ-RC-KNX-1i         (ARX/C2)90/96/ATH /           FJ-RC-KNX-1i         ARKC45/60/GATH only)												
	Wireless LAN Interface			● FJ-RC-WIFI-1				FJ-RC-	WIFI-1	FJ-RC- (ARXC72/9 ARKC45/60	WIFI-1 0/96GATH / IGATH only)			● FJ-RC-WIFI-	-1	
	External Switch Controller			AKKL4s/buluAlH only)												

0	Others															
			Indoor unit							1			Wall Mounte	d		
			4-way Compact	4-way (slim)	4-way (Large)	Mini (With drain pump)	Mini (Without drain pump)	Slim (With drain pump)	Medium Static Pressure	High Stat	ic Pressure	Ceiling / Floor	Ceiling	_	EEV external	_
Ту	AUXB 07/09/12/14/ 18/24GATH         AUXD 18/24 GATH         AUXA 18/24/30/34/ 36/45/54GALH         ARXK 07/09/12/14/ 18/24GLH         ARXD 07/09/12/14/ 18/24GLH         ARXD			ARKC 45/60 GATH	ABHA 12/14/18/24 GATH	ABHA 30/36/45/54 GATH	ASHA 07/09/12/14 GACH ASHA 07/09/12/14 GATH	ASHE 07/09/12/14 GACH	ASHA 18/24/30 GACH ASHA 18/24/30 GATH							
Others	IR Receiver Unit			UTY-LI	RHGB1		UTB-YWC									
l	Remote Sensor Unit	New amenity space can be offered by installing the Remote sensor.						UTY-	XSZX							
	Cassette Grille	UTG-UFGD-W	UTG- UFGD-W													
	Grille	UTG-UGGA-W		UTG-U	GGA-W											
	Auto Louver Grille Kit					1	UTD-GXTA-W UTD-GXTB-W(18 UTD-GXTC-W(24	8) -)								
	Long Life Filter								UTD-LF25NA	UTD-L (36 / 4	F60KA 5 / 60)					
l	Flange	0—							UTD-SF045T UTD-RF204				UTD-RF204			
	Drain Pump								UTZ-PX1NBA							
	Unit	1											UTR-DPB24T			
	Wide Panel	Panel (mm)		UTG-A	KXA-W GYA-W											
	Panel Spacer	(mm) 242 Panel spacer		UTG-B UTG-B	KXA-W GYA-W											
	Air Outlet Shutter Plate	For Compact Cassette	UTR-YDZB	UTR-	YDZK											
	Insulation for High Humidity	For Compact Cassette type / Cassette type	UTZ-KXGC	UTZ-	KXRA											

## **OPTIONAL PARTS**

Controllers			
For Individual Control			
Wired Remote Controller (Touch Panel ) NEW UTY-RNRGZ2	Image: Description         1 - mage           Image: Description         266.0 cc           Image: Description         1 - mage           Image: Description         1 - mage	Wired Remote Controller UTY-RLRG	Simple Remote Controller NEW UTY-RSRG With operation mode
Simple Remote Controller NEW UTY-RHRG Without operation mode		Wireless Remote Controller UTY-LNHG	IR Receiver Unit UTB-YWC For All Duct types except Large Airflow Duct
IR Receiver Unit UTY-LRHGB1 For Cassette type	Non-		

#### For Centralized Control

<b>Group Remote Controller</b> UTY-CGGG	<b>Central Remote Controller</b> UTY-DCGG	Touch Panel Controller NEW UTY-DTGGZ1
		Option UTY-PTGXA
System Controller Lite Software NEW UTY-ALGXZ1	System Controller Software	
Option UTY-PLGXR2 UTY-PLGX22 UTY-PLGX22	Option UTY-PEGXZ1	

Convertors / Adaptors

#### For External device BACnet® Gateway Software BACnet® Gateway Hardware NEW UTY-ABGXZ1 NEW UTY-VBGX WHITE-USB-KEY (Software Protection Key) MODBUS<sup>®</sup> Convertor for VRF MODBUS® Interface FJ-RC-MBS-1 UTY-VMGX KNX<sup>®</sup> Interface Wireless LAN Interface FJ-RC-KNX-1i FJ-RC-WIFI-1 For System expansion

Network Convertor for single split UTY-VTGX DC power supply type	Network Convertor for single split UTY-VTGXV AC power supply type
External Switch Controller NEW UTY-TERX	Signal Amplifier UTY-VSGXZ1

Panels

#### For Cassette type

Cassette Grille UTG-UFGC-W	
For Compact Cassette type	

**Cassette Grille** UTG-UGGA-W For Cassette type

110 **OGENERAL** 

![](_page_55_Picture_13.jpeg)

![](_page_55_Picture_14.jpeg)

## **OPTIONAL PARTS**

![](_page_56_Figure_2.jpeg)

#### For Cassette type

![](_page_56_Figure_4.jpeg)

![](_page_56_Picture_5.jpeg)

![](_page_56_Picture_6.jpeg)

![](_page_56_Picture_7.jpeg)

![](_page_56_Picture_8.jpeg)

![](_page_56_Picture_9.jpeg)

![](_page_56_Figure_10.jpeg)

#### External Input and Output Function/External Connect Kit/Communication Kit

				Indoor unit			Outdo	or unit	Contr	roller
		Cassette	Duct			Wall	V-III Tropical	J-III Tropical	Central Remote Controller	Touch Panel Controller
Туре		4-way Compact, 4-way, 4-way, High Static Pressure, High Static Pressure		Ceiling / Floor Ceiling		Wali Mounted, Wounted EEV external	AJH 072/090/ 108/126/144 LN★BH	AJH 072/090/126 LNLAH	UTY-DCGG	UTY-DTGGZ1
Funct	Operation / Stop			UTY-XWZXZD						
ion	All On / All Off								UTY-XWZXZ7	• *2 • *2
	Batch Stop						• UTY-	XWZXZ6		
	Forced Stop			UTY-XWZXZD UTY-XWZXZB						
	Emergency Stop			<ul> <li>UTY-XWZXZD</li> <li>UTY-XWZXZB</li> </ul>			• UTY-	XWZXZ6	<ul> <li>UTY-XWZXZ7</li> <li>UTY-XWZXZ8</li> </ul>	• *2 • *2
	Forced Thermostat off			<ul> <li>UTY-XWZXZE</li> <li>UTY-XWZXZ7</li> </ul>						
	Low Noise Mode Operation						• UTY-	XWZXZ6		
	Cooling/ Heating Priority						• UTY-	XWZXZ6		
	Outdoor Unit Operation Peak Control						• UTY-	XWZXZ6		
	Power Usage Information from Electricity Meter						• UTY-	XWZXZF		• *2 • *2
outpu	Operation Status	● UTY-XWZXZC					O UTY-	XWZXZ6	⊖ UT	Y-XWZXZA
	Error Status	● UTY-XWZXZC					O UTY-	XWZXZ6	⊖ UT	Y-XWZXZA
	Indoor Unit Fun Operation Status			• UTY-XWZXZC						
	Auxiliary Heater Output		• UTY-XWZXZC							
	Base Heater						• UTY-	XWZXZ9		

\*2: Touch Panel Controller has these functions for Dry contact and Apply voltage, however, above External Connect Kit is not necessary because Touch Panel Controller has an external input terminal block.

	For Outdoor unit	
	UTY-XWZXZ6	
	UTY-XWZXZ9	
	UTY-XWZXZF	
er		

• : Dry Contact O : Apply Voltage V-III Tropical : AJH\_\_LN\*: AJH\_\_LNL, AJH\_\_LNT

## **OPTIONAL PARTS**

![](_page_57_Figure_2.jpeg)

#### Specifications Separation Tube

Model name	UTP-AX054A	UTP-AX090A	UTP-AX180A	UTP-AX567A
Total cooling capacity of indoor unit (kW)	19.6 or less	28.0 or less	28.1 to 56.0	56.1 or more

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

Outdoor unit Branch kit					
Model name		UTP-CX567A			
	2 outdoor units	1			
Number of Outdoor unit	3 outdoor units	2			

EV Kit								
Model name	UTR-EV09XB	UTR-EV14XB						
Application Model	ASHE07GACH ASHE09GACH	ASHE12GACH ASHE14GACH						

#### Header

![](_page_57_Figure_9.jpeg)

![](_page_57_Picture_10.jpeg)

![](_page_57_Picture_11.jpeg)

![](_page_57_Picture_12.jpeg)

Outdoor Unit Branch Kit

![](_page_57_Picture_14.jpeg)

Model code ≦09 : UTR-EV09XB Model code ≥ 12 : UTR-EV14XB For Compact Wall Mounted type

EV Kit

![](_page_57_Picture_16.jpeg)

# ABOUT US

Since we began our air conditioning business in 1971, our products have been popular around the world and we continue to improve them.

OUR HISTORY GLOBAL NETWORK HIGH QUALITY DEVELOPMENT & PRODUCTION FACILITIES PROJECT REFERENCE

![](_page_58_Picture_3.jpeg)

## **OUR HISTORY**

Overseas Air Conditioning Business since 1971 VRF Business since 2001

FUJITSU GENERAL's VRF AIRSTAGE<sup>™</sup> Series has been developed based on our long-term air-conditioning technology know-how and was first provided 14 years ago. We have offered a series of products from large homes to large-scale buildings to meet the various market needs.

![](_page_59_Picture_4.jpeg)

![](_page_59_Picture_5.jpeg)

Tropical spec model High efficiency and compact design model 4HP to 6HP / Heat pump

![](_page_59_Picture_7.jpeg)

AIRSTAGE J-ML

High efficiency and compact design model 10HP to 12HP / Heat pump

![](_page_59_Picture_10.jpeg)

## 2017

Restriction of Hazardous Substances (ROHS) is an EU directive on the restriction of the use of certain hazardous substances in all consumer electrical and

![](_page_59_Picture_13.jpeg)

2016

increment / Heat pump

AIRSTAGE V-III 🦥

DC Inverter Compressors Use of 100% inverter driven DC compressors.

![](_page_59_Picture_15.jpeg)

## **GLOBAL NETWORK**

Fujitsu General's air conditioning business has acquired a major share of the overseas market. We have many production and sales facilities overseas, and we continue to develop and sell products that are accepted around the world by their "easy-to-use and environmentally-friendly technology".

![](_page_60_Figure_3.jpeg)

![](_page_60_Picture_4.jpeg)

R&D Center in Fujitsu General (Shanghai)

![](_page_60_Picture_6.jpeg)

R&D Center in Fujitsu General Engineering (Thailand)

![](_page_60_Picture_9.jpeg)

Fujitsu General (Shanghai) Co., Ltd.

![](_page_60_Picture_11.jpeg)

F.G.L.S. Electric Co., Ltd.

![](_page_60_Picture_13.jpeg)

Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

![](_page_60_Picture_15.jpeg)

FGA (Thailand) Co., Ltd.

![](_page_60_Picture_17.jpeg)

Fujitsu General (Thailand) Co., Ltd. Fujitsu General Engineering (Thailand) Co., Ltd.

![](_page_60_Picture_19.jpeg)

TCFG Compressor (Thailand) Co.,Ltd.

#### **HIGH QUALITY DEVELOPMENT & PRODUCTION** FACILITIES

Fujitsu General is one of Japan's leading manufacturers with an R&D Center in Japan. We provide customers with the highest quality and performance using these facilities.

## Advanced Research Facility and Equipment

![](_page_61_Picture_4.jpeg)

![](_page_61_Picture_5.jpeg)

Air Volume Measurement Room Measure air volumes of the air conditioners from compact RAC models to VRF.

![](_page_61_Picture_7.jpeg)

Calorimeter

Measure the cooling/heating capacity by measuring the inlet and outlet temperatures, humidity, and air volume of the air conditioner.

![](_page_61_Picture_10.jpeg)

Silent Room Measure the operating sounds of air conditioners with the sound reflection-proof walls and ceiling.

![](_page_61_Picture_12.jpeg)

Check on whether the electrical typhoon like wind.

![](_page_61_Picture_14.jpeg)

## **High Product Quality** Assurance

report. European regulation RoHS inspection is also performed by special test department in-house. Total number inspection is performed especially on main parts to remove defectives.

production processes. High quality is maintained by stringent checks by inspectors and repetitive inspection.

![](_page_61_Picture_30.jpeg)

& Handling

![](_page_61_Picture_31.jpeg)

**Constant Temperature Room** Check on the product performance in cooling/heating operation under the various temperature and humidity conditions

![](_page_61_Picture_33.jpeg)

Practical Test Room Check on whether the air conditioners performance under the actual house conditions is sustainable.

![](_page_61_Picture_35.jpeg)

Shower Test Room box of the outdoor unit is protected by rain waters with

Practical Test Room

sustainable.

Check on whether the air conditioners performance under

the actual house conditions is

![](_page_61_Picture_37.jpeg)

**Compressibility testing** 

![](_page_61_Picture_39.jpeg)

Vibration testing

## Testing Laboratory

Fujitsu General EMC Laboratory Limited

![](_page_61_Picture_43.jpeg)

## **PROJECT REFERENCE**

Our product is popular because of its high quality, energy saving, and easy installation, and so has been installed in a wide range of building types including high-rise office buildings, stores, hotels, public facilities, schools, hospitals and residential.

![](_page_62_Picture_3.jpeg)

![](_page_62_Picture_4.jpeg)

![](_page_62_Picture_5.jpeg)

![](_page_62_Picture_6.jpeg)

![](_page_62_Picture_7.jpeg)

![](_page_62_Picture_8.jpeg)

![](_page_62_Picture_9.jpeg)

Fujitsu General's Products has been installed in **OVER 50 COUNTRIES WORLDWIDE.** 

![](_page_62_Picture_11.jpeg)

124 **OGENERAL** 

![](_page_62_Picture_13.jpeg)

![](_page_62_Picture_14.jpeg)

![](_page_62_Picture_15.jpeg)

![](_page_62_Picture_16.jpeg)

# SUPPORT

Our know-how supports you not only during the product release but also from guiding implementation to product maintenance.

AIRSTAGE<sup>™</sup> SUPPORT AIRSTAGE<sup>™</sup> / RAC SUPPORT TOOL QUICK SERVICE & MAINTENANCE SERVICE TOOL WEB MONITORING TOOL

Category					Info	rma	tion	Mate	erial					Тс	ool	
	Product Sales Training Material	Product Technical Training Material	Product news	Brochures	Feature Promotion Movie	Operating Manual	Design & Technical Manual	Certificate Data	2D CAD Data	3D CAD (Revit) Data	Installation Manual	Service Manual	Design Simulator (RAC, PAC, VRF)	CFD Simulation	Service Tool / Web Monitoring Tool	Mobile Technician
Product Training	•	•														
Product Information Seek			•	•	•	•	•									
Technical Information Seek							•	•								
Model Selection							•						•			
Design							•		•	•						
Verification														•		
Installation							•				•					
After sales and Service												•			•	•

![](_page_63_Picture_5.jpeg)

## AIRSTAGE<sup>™</sup> SUPPORT

Fujitsu General provides a variety of product and technical information to engineers and consultants, and also conducts new product research and design support activities. We provide a wide range of support to maintain high quality from design to installation.

#### Training

Fujitsu General has many training facilities around the world that regularly conduct specialized product, technical, and service training. These research facilities also support the development of people with high technical capability.

#### Features

- Designing AIRSTAGE<sup>™</sup> Systems
- Control System on-site training

![](_page_64_Picture_8.jpeg)

![](_page_64_Picture_9.jpeg)

#### **Technical information**

We provide information and tools that are useful for air conditioning system design, such as unit performance data and tools that make model selection and estimation easy.

#### Features

- Design & Technical Manual
- Model Selection & Estimation
- Certificate Data
- 2D/3D CAD Data

#### **Product information**

New product information is provided in the form of documents and movies for every new model released. These can be downloaded from a private section of our website. To access this website, please contact your Fujitsu representative.

#### Features

- Product News
- Brochures & All Manuals
- Feature Promotion Movie

#### **Technical support**

Technical support is provided at every stage from design to installation to assist in providing the most suitable air conditioning solution.

#### Features

- CFD Simulation
- Guide line
- Commissioning Support

![](_page_64_Picture_30.jpeg)

![](_page_64_Figure_31.jpeg)

![](_page_64_Picture_32.jpeg)

Commissioning Support

## **AIRSTAGE<sup>™</sup> / RAC SUPPORT TOOL**

Put the charts and pens away and design your projects on your computer with ease using the Design Simulator. Everything from selecting indoor and outdoor units, allocating controls and optional parts to designing the piping and wiring systems is made easier using the program's built-in features.

Once your project is designed take advantage of the Export functions to easily get materials lists, product specifications, refrigerant calculations and more - it'll even export to Word, Excel, or Acrobat formats, and group the relevant CAD data for your project.

#### **Design Simulator**

#### Automatically create model selection information

- Each unit can be automatically set by entering the required performance, type, and temperature conditions for each indoor unit and then dragging and dropping into the outdoor unit.
- Piping and wiring diagrams can be created automatically and it is easy to set branches, grouping, and options.
- The additional refrigerant charging amount is automatically calculated when the pipe length is entered.
- It is also easy to set the remote controller groups, central controller and converters.
- The equipment list including the equipment information is created automatically.

![](_page_65_Picture_11.jpeg)

#### **BIM Building Information Modeling**

Fujitsu General provides the Building Information Modeling (BIM) object models and contents for our VRF system and some products to the architect, designer and contractor using Autodesk® Revit® technology from our Website and Autodesk® Seek Website, etc.

#### 3D and 2D product data

We provide 3D data that closely resemble the actual product appearance. 2D CAD design operations are supported and 2D display is also provided. The data can also be output in other formats, such as DXF and DWG, which are used by other design CAD.

#### Installation limitation

The equipment installation limitation range is shown. Installation requirements, such as distance from the wall, is automatically displayed to make it easy to produce highly reliable layout designs.

#### Output the format that matches the application

The information specific to your project can be exported in a number of industry standard file formats.

- Word format (rtf)(doc)
- Excel format (csv)
- Acrobat format (pdf)
- Auto CAD format (DXF)
- 2D Data (DXF) • 3D Data (RFA)

![](_page_65_Picture_25.jpeg)

![](_page_65_Picture_26.jpeg)

![](_page_65_Picture_28.jpeg)

#### Update your Design Simulator

Other information, such as symbols showing the airflow direction that are required for installation drawings, is built in and can be automatically reflected in 2D drawings. Installation drawings can be created easily.

#### Product specifications & link information

Contains the basic information required for air conditioner design, including unit size, capacity, input power, noise, and airflow rate. These data can be procured from the Fujitsu General Website, Design Simulator, and Autodesk® Seek Website.

#### Update your Design Simulator

Database can be easily updated online using AutoUpdate function through FTP.

![](_page_65_Picture_36.jpeg)

## **QUICK SERVICE & MAINTENANCE**

If trouble should occur in a unit or system, abundant support tools such as trouble code display at the product, Service Tool that allows checking of the detailed status of the entire system, and remote monitoring tool that uses the internet, etc. support quick service and maintenance anywhere and at any time.

#### Mobile troubleshooting tool for iPhone & Android

![](_page_66_Picture_4.jpeg)

We will release an App of troubleshooting tool for iPhone, iPod touch and other Apple products. This application is a troubleshooting tool for Fujitsu General air conditioner (RAC/PAC, VRF)

It helps you to check air conditioner condition. Error code check, Troubleshooting, and Sensor check are available.

![](_page_66_Picture_7.jpeg)

#### Easy maintenance & monitoring

#### Design for easy maintenance

#### Design for easy maintenance

The air conditioner operating status and trouble status of the detailed are displayed at the 7-segment of the outdoor unit PCB or on the remote controller screen. The unit status can be checked rapidly and quick response is also possible.

- Operation mode status
- Discharge temperature/Pressure status
- Compressor operation indication
- Address/Type/Number of outdoor unit
- Error code.

#### Error diagnosis by Service Tool

Error diagnosis by Service Tool The unit status details for VRF system can be checked on PC screen by connecting Service Tool. Quick countermeasures can be taken

- Operation status/control
- Monitoring operating condition
- Monitoring sensor data
- Indication of trend graph
- Error history
- Indication of refrigerant circuit diagram
- Automatic operation check for refrigeration cycle

#### Remote monitoring

VRF system operating status and trouble status details can be constantly and remotely monitored over the Internet, etc. Rapid cooperation with the service personnel are also possible.

![](_page_66_Picture_29.jpeg)

Wired Remote Controller (Touch panel) Error status/Error history

## Monterprot Same 1 Dor Hony Same 2 March Springer Votals Ban Tage Q/1 Same 2

![](_page_66_Picture_32.jpeg)

#### Wired Remote Controller

![](_page_66_Figure_34.jpeg)

![](_page_66_Picture_35.jpeg)

![](_page_66_Picture_36.jpeg)

## **SERVICE TOOL**

#### Extensive monitoring and analysis functions for installation and maintenance

- Operation status can be checked and analyzed to detect even the smallest abnormalities
- Storage of data on system operation status on a PC allows access even from off site.
- Up to 400 indoor units (a single VRF network system) can be controlled and monitored for large scale buildings or hotels
- This software can be connected to any point of transmission line with USB adaptor (locally purchased)
- \* The saved data can be displayed offline. However, the data saved by the following model cannot be displayed.
- UTR-YSTB/UTR-YSTC (Service Tool)
- UTR-YMSA (Web Monitoring Tool)

#### Automatic operation check for refrigeration cycle

After product installation, operation check can be performed automatically. Self-diagnosis function automatically judges whether each sensor value is normal, so the operation check work can be reduced. The diagnosis can also be output as a report.

![](_page_67_Figure_12.jpeg)

#### Remote technical support & maintenance

On-site check screen can be shared with the skilled person in a distant place. When visiting for troubleshooting on site, operation status can be shared in real time and get assistance easily. Online chat function helps to support on site staff.

![](_page_67_Figure_15.jpeg)

#### Various trend graph display

Previously, only 3 kinds of each sensor value can be displayed. However, multiple graphs can be displayed in new Service Tool depending on the situation. The refrigeration cycle can be checked in detail.

![](_page_67_Figure_18.jpeg)

#### Personal computer system requirements

		UTY-ASGXZ1			
Operating system		Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)			
CPU		1 GHz or higher			
Memory		<ul> <li>1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit])</li> <li>2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])</li> </ul>			
HDD		40 GB or more of free space			
Display		1366 x 768 or higher resolution			
Interface		2 USB ports     - 1 USB port is required for software protection key connection     - 1 USB port is required for Echelon® U10 USB Network Interface			
Software Internet Explorer®		Internet Explorer® 11 or Microsoft Edge / Adobe® Reader® 9.0 or later			
•Echelon <sup>®</sup> U10 USB Networ	k Interface – T	P/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)			
<packing list=""></packing>					
Name and shape	Quantity	Application			
WHITE-USB-KEY (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC.			

## WEB MONITORING TOOL

#### Product features

- Troubleshooting is performed by monitoring each air conditioning unit remotely during periodical system checks.
- Error notification can be automatically transmitted to several locations using the internet \*1.
- Requires either a dedicated internet connection or public telephone line.
- The monitoring data in a remote side can be optionally downloaded. And, this data can be displayed in offline mode of the service tool.
- Monitoring side computer is not required to install special software, requires only general web browser.

#### Web Monitoring System

![](_page_67_Picture_30.jpeg)

#### Support 4 VRF network systems

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

#### Personal computer system requirements

	Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)					
	1 GHz or higher					
	<ul> <li>1 GB or more (for Windows Vista<sup>®</sup>, Windows<sup>®</sup> 7 [32-bit], W</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1 [64</li> </ul>					
	40 GB or more of free space					
	1366 x 768 or higher resolution					
	USB port (for 10 USB Network Interface Max.4, Software p     Either of the following interface is required for remote cor     Internet using LAN: Ethernet port is required					
	Internet Explorer <sup>®</sup> 11 or Microsoft Edge / Adobe <sup>®</sup> Reader <sup>®</sup> 9.					
k Interface – Ti	P/FT-10 Channel (Model number: 75010R) (Required for each VF					
Quantity	Application					
1	Software protection key to be connected to USB port on the These products run only on a PC with WibuKey.					
	k Interface – T Quantity 1					

• Determination of an error occurrence can be made through error warnings and equipment status information obtained from a remote location.

\*1: Use of internet mail system required.

![](_page_67_Figure_40.jpeg)

UTY-AMGXZ1

indows® 8.1 [32-bit], and Windows® 10 [32-bit]) bit], and Windows® 10 [64-bit])

otection key) nection:

0 or later RF Network.)

ervice Tool-installed PC

![](_page_68_Picture_0.jpeg)

![](_page_68_Figure_1.jpeg)

ISO 9001 ISO 14001 Certified number: 01 100 89394 Certified number: 01 104 9245/01 Fujitsu General (Thailand) Co., Ltd.

![](_page_68_Figure_3.jpeg)

![](_page_68_Figure_4.jpeg)

79269 Certified number: CNBJ311153-UK Fujitsu General (Shanghai) Co., Ltd. ISO 9001 Certified number: 01 100 79269

![](_page_68_Picture_6.jpeg)

ISO 9001 ISO 14001 Certified number: 15914010065R4M Certified number: 15912E10022R3M Fujitsu General Central Air-conditioner (Wuxi) Co., Ltd.

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