A wide product lineup to meet a variety of needs

We can flexibly meet customer needs through a variety of offerings including wired and wireless individual remote controllers, central remote controllers that simultaneously control multiple indoor units, and a variety of converters that link with other systems.

Light Commercial & Commercial, Residential

CONTROL SYSTEM &
OPTIONAL PARTS

CONTROL SYSTEM

Optional parts

SPLIT

MULTI-SPLIT

VRF J Series

VRF V Series

Control System Overview
for Split & Multi-split

All indoor units* are equipped with a wireless or wired remote controller as standard. Additional options are available, such as individual remote controllers and central remote controllers. The easy-to-operate central remote controller makes it simple to control the operation mode, temperature, airflow volume, timer, and other functions of each indoor unit from a single location.

* Except for some products

Air Conditioning
Individual control

NEW

Wired remote controller
A built-in thermo sensor monitors and controls room temperature accurately.

Wireless remote controller
Simple and versatile operations with a choice of 4 different types of timers

Simple remote controller
Compact remote controller with basic functionality

For Ceiling type
IR receiver unit
Wireless remote controller

For Duct type
IR receiver unit
Wireless remote controller

For Cassette type
IR receiver unit
Wireless remote controller

IR receiver unit
This IR receiver unit enables a wireless remote controller to control a duct-type indoor unit.

Air Conditioning
Centralized control

Home central remote controller for 5 & 6-unit Multi-split type
Enables individual and central control.

Converters/Adapters
For external control via BMS/Home Automation Systems

MODBUS® converter
for indoor units
UTY-VMSX

MODBUS® interface
for indoor units
Intesis®

KNX® converter
for indoor units
UTY-VKSX

KNX® interface
for indoor units
Intesis®

WLAN adapter
Intesis®

Network converter

DC power supply type	AC power supply type
UTY-VTGX	UTY-VTGXV

Online Control (Wireless Control via Smartphone/Tablet)

With the WLAN adapter and the AIRSTAGE Mobile app, you can control the heating and cooling of your home anytime, anywhere.

WLAN adapter
The dedicated WLAN adapter enables the air conditioner to be operated by smartphone or tablet computer.

WLAN adapter
USB

AIRSTAGE Mobile
Download Free
App Store
Google play

Simple, user-friendly interface design
The designed screen display makes it easier than ever to operate.

27.0

On/Off
Temperature setting
Operation mode
Operation setting
Economy setting
Maintenance setting
Fan speed
Timer
Setting

Control System Overview
for VRF

To meet the diverse needs of customers, we offer a variety of control options for our VRF systems, such as individual control, centralized control, and building management system (BMS) options.

Converters/Adapters
For external control via BMS/Home Automation Systems

BACnet® gateway
UTY-ABGXZ1 (Software)

VTY-VBGX (Hardware)

Intesis®

BACnet® interface
for Indoor units
FG-IR-BMG1Z1

Intesis®

Network converter
(For LONWORKS™)
UTY-VLGX

MODBUS® converter
for Indoor units
UTY-VMSX

for VRF
UTY-VMGX

Intesis®

KNX® converter
for Indoor units
UTY-VKSX

for VRF
UTY-VKGX

Intesis®

WLAN adapter
UTY-TFSXJ3 / UTY-TFSXZ1

External switch controller
UTY-TERX

BMS/BAS[*3]

BMS, Home automation system[*3]

or
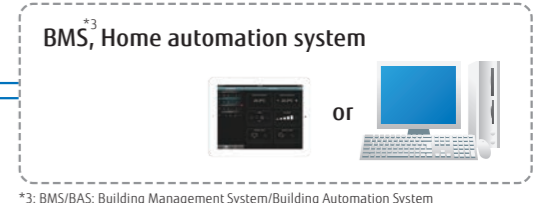
*3: BMS/BAS: Building Management System/Building Automation System

Air Conditioning
Individual control

NEW
Wired remote controller
(Design type)
UTY-RVRY

Wired remote controller
(with touch panel)
UTY-RNRYZ5

Wired remote controller
UTY-RLRY

Compact wired remote controller
UTY-RCRYZ1

Simple remote controller
UTY-RSRY
UTY-RHRY
Without operation mode

NEW
Wireless Remote Controller
UTY-LNVY
UTY-LNHY

IR receiver unit

For Duct type

For One-way flow cassette Series/ 3D-flow cassette Series/duct type

for Circular flow cassette Series

UTB-YWC for duct type

UTY-TRHX
for One-way flow cassette Series 3D flow cassette Series/duct type

UTY-LBHXD
for Circular flow cassette Series

Air Conditioning
Centralized control

Internet or landline

USB adapter*1
(Locally available)

Remote/ Monitoring side

System controller (Software)
UTY-APGXZ1/UTY-ALGXZ1 (Lite version)

Up to
1600[*2]
Indoor units

*1: Echelon® U10 USB Network Interface
*2: The Lite version controls up to 400 indoor units.

Remote/ Monitoring side

Internet or landline

Touch panel controller
UTY-DTGYZ1

Up to
400
Indoor units

NEW
Central remote controller
UTY-DCGYZ3

Up to
100
Indoor units

Card-key
(Locally available)

Internet device

Converters/Adapters
for system expansion

Network converter
DC power supply type
UTY-VTGX

Single split

Network converter
AC power supply type
UTY-VTGXV

Single split

Signal amplifier
UTY-VSGXZ1

CONTROL SYSTEM & OPTIONAL PARTS

Best control solution for each building structure

Fujitsu General provides the best control solutions suitable for various building structures.

SHOP

Type	Individual control	Centralized control			Integrating control (Interface)		
	Wired remote controller	Central remote controller	Touch panel controller	System controller	Network converter for LONWORKS™	MODBUS® Converter	KNX® converter
	UTY-RVRY UTY-RNRYZ5 UTY-RLRY UTY-RVNYM UTY-RCRYZ1	UTY-DCGYZ3	UTY-DTGYZ1	UTY-APGXZ1 UTY-ALGXZ1	UTY-VLGX	UTY-VMGX	UTY-VKGX
Automatic control of air conditioning (Schedule timer, Weekly timer, etc.)	●	●	●	●			
Controls limited to staff: Remote controller prohibition, Setting temperature range limitation, etc.		●	●	●	●	●	●
Group control		●	●	●			
Advanced energy saving: Peak cut, Operation of indoor unit rotation, etc.				●			
Remote monitoring management		●	●	●			
Manage multiple sites		●	●	●			
Monitor energy consumption				●			
Control third-party products				●			
Integrate Fujitsu General air conditioning into BMS					●	●	●

HOTEL

Type	Individual control			Centralized control			Integrating control (Interface)				
	Wired remote controller	Simple remote controller	Wireless remote controller	Central remote controller	Touch panel controller	System controller	BACnet® gateway	Network converter for LONWORKS™	MODBUS® converter	KNX® converter	External switch controller
	UTY-RVRY UTY-RNRYZ5 UTY-RLRY UTY-RCRYZ1	UTY-RSRY UTY-RHRY	UTY-LNVY UTY-LNHY UTY-LNTY	UTY-DCGYZ3	UTY-DTGYZ1	UTY-APGXZ1 UTY-ALGXZ1	UTY-ABGXZ1 UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for hotel guests	●	●	●								
Centralized air conditioning control for common areas				●	●	●	●	●	●	●	
Limited control for hotel guests				●	●	●	●	●	●	●	
Remote monitoring management				●	●	●					
Advanced energy saving: Peak cut, Operation of indoor unit rotation, etc.						●	●				
Monitor energy consumption						●					
Control third-party products						●					
Integrate Fujitsu General air conditioning into BMS							●	●	●	●	
Interlock with window contact											●
Interlock with key card											●

OFFICE

Type	Individual control			Centralized control			Integrating control (Interface)				
	Wired remote controller	Simple remote controller	Wireless remote controller	Central remote controller	Touch panel controller	System controller	BACnet® gateway	Network converter for LONWORKS™	MODBUS® converter	KNX® converter	External switch controller
	UTY-RVRY UTY-RNRYZ5 UTY-RLRY UTY-RCRYZ1	UTY-RSRY UTY-RHRY	UTY-LNVY UTY-LNHY UTY-LNTY	UTY-DCGYZ3	UTY-DTGYZ1	UTY-APGXZ1 UTY-ALGXZ1	UTY-ABGXZ1 UTY-VBGX	UTY-VLGX	UTY-VMGX	UTY-VKGX	UTY-TERX
Local control for office staff	●	●	●	●							
Automatic control of air conditioning (Schedule timer, Weekly timer, etc.)	●		●	●	●	●	●				
Centralized air conditioning control for management			●	●	●	●	●	●	●		
Controls limited to staff: Remote controller prohibition, Setting temperature range limitation, etc.			●	●	●	●	●	●	●		
Advanced energy saving: Peak cut, Operation of indoor unit rotation, etc.						●	●				
Remote monitoring management				●	●	●					
Electricity charge apportionment				●	●	●					
Monitor energy consumption						●					
Control third-party products						●					
Integrate Fujitsu General air conditioning into BMS							●	●	●	●	
Interlock with door contact											●
Interlock with Human sensor for meeting room				●							●

Comparison table of controllers

Item	Wired remote controller (Design type)	Wired remote controller (with touch panel)	Wired remote controller	Wired remote controller	Compact wired remote controller	Simple Remote Controller	Simple remote controller*1	Wireless remote controller	Wireless remote controller	Wireless remote controller	Home central remote controller (for 5/6-unit multi-split type)	Central remote controller	Touch panel controller	System controller Lite (Software)	System controller (Software)
Model name	UTY-RVRY	UTY-RNRYZ5	UTY-RLRY	UTY-RVNYM	UTY-RCRYZ1	UTY-RSRY	UTY-RHRY	UTY-LNTY	UTY-LNVY	UTY-LNHY	UTY-DMMYM	UTY-DCGYZ3	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Maximum number of controllable remote controller groups	1	1	1	1	1	1	1	1	1	1	1	100	400	400	1600
Maximum number of controllable indoor units	16	16	16	16	1	16	16	16	16	16	8	100	400	400	1600
Maximum number of controllable groups	–	–	–	–	–	–	–	–	–	–	–	50	400	400	1600

Air conditioning control functions

Item	UTY-RVRY	UTY-RNRYZ5	UTY-RLRY	UTY-RVNYM	UTY-RCRYZ1	UTY-RSRY	UTY-RHRY	UTY-LNTY	UTY-LNVY	UTY-LNHY	UTY-DMMYM	UTY-DCGYZ3	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
ON/OFF	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Operation mode setting	●	●	●	●	●	●	–	●	●	●	●	●	●	●	●
Fan speed control	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Room temperature setting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Setting temperature range limitation	●	●	●	●	–	●	●	–	–	–	–	●	●	●	●
Test operation	●	●	●	●	●	●	●	●	●	●	–	●	●	–	–
Vertical louver setting	●	●	●	●	●	●	●	●	●	●	–	●	●	●	●
Horizontal louver setting	●	●	●	●	●	–	–	–	–	●	●	●	●	●	●
Individual louver control	●	●	–	–	●	–	–	–	–	–	–	●	●*3	–	–
Group setting	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●
Remote controller prohibition	–	–	–	–	–	–	–	–	–	–	●	●	●	●	●
Anti-freeze setting	●	●	–	–	●	–	–	–	–	–	–	●	●	●	●
Set temperature auto return	●	●	●	●	–	–	–	–	–	–	–	–	●	–	–
Economy mode setting	●	●	●	●	●	–	–	●	●	●	●	●	●	●	●
Human sensor control	●	●	–	–	–	–	–	–	–	–	●	●	●	●	●

Displayed items

Item	UTY-RVRY	UTY-RNRYZ5	UTY-RLRY	UTY-RVNYM	UTY-RCRYZ1	UTY-RSRY	UTY-RHRY	UTY-LNTY	UTY-LNVY	UTY-LNHY	UTY-DMMYM	UTY-DCGYZ3	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Error	●	●	●	●	●	●	●	–	–	–	●	●	●	●	●
Defrosting	●	●	●	●	●	●	●	–	–	–	●	●	●	●	●
Current time	●	●	●	●	–	–	–	●	●	●	●	●	●	●	●
Day of week	●	●	●	●	–	–	–	–	–	–	–	●	●	●	●
Remote controller prohibition	●	●	●	●	●	●	●	–	–	–	●	●	●	●	●
Address display	●	●	●	●	●	●	●	–	–	–	–	–	●	●	●
Room temperature	●	●	–	●	●	●	●	–	–	–	–	●*4	●*4	●*4	●*4
Multiple language support	●	●	–	●	–	–	–	–	–	–	●	●	●	●	●
Setting for daylight saving time	●	●	–	●	–	–	–	–	–	–	●	●	●	●	●
Name registration	●	●	–	–	–	–	–	–	–	–	–	●	●	●	●
Backlighting	●	●	–	●	●	●	●	–	●	–	●	●	●	–	–
2D floor layout/3D building display	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●
Refrigerant leak detector	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●
Refrigerant Cycle Monitor	●	●	–	–	–	–	–	–	–	–	–	–	–	–	–
Logo Display	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Limited Visibility of Settings	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–

Timer

Item	UTY-RVRY	UTY-RNRYZ5	UTY-RLRY	UTY-RVNYM	UTY-RCRYZ1	UTY-RSRY	UTY-RHRY	UTY-LNTY	UTY-LNVY	UTY-LNHY	UTY-DMMYM	UTY-DCGYZ3	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Schedule timer — Period	Week	Week	Week	Week	–	–	–	–	–	–	Week	Year	Year	Year	Year
Schedule timer — ON/OFF, Temp, Low noise mode*5, Times per day	8	8	4	8	–	–	–	–	–	–	4	20	20	144	144
ON/OFF timer	–	●	●	●	●(OFF only)	–	–	●	●	●	–	–	–	–	–
Sleep timer	–	–	–	–	–	–	–	●	●	●	–	–	–	–	–
Program timer	–	–	–	–	–	–	–	●	●	●	–	●	–	–	–
Auto-off timer	●	●	●	●	–	–	–	–	–	–	–	●	●	–	–
Day off	●	●	●	●	–	–	–	–	–	–	–	●	●	●	●
Minimum unit of timer setting (minutes)	1 • 10	10 • 30	30	30	–	–	–	5	5	5	5	10	10	10	10

Control

Item	UTY-RVRY	UTY-RNRYZ5	UTY-RLRY	UTY-RVNYM	UTY-RCRYZ1	UTY-RSRY	UTY-RHRY	UTY-LNTY	UTY-LNVY	UTY-LNHY	UTY-DMMYM	UTY-DCGYZ3	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Remote monitoring management system	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●
Electricity charge apportionment	–	–	–	–	–	–	–	–	–	–	–	–	○	○	●
Error history	●	●	●	●	–	–	–	–	–	–	–	●	●	●	●
Emergency stop	–	–	–	–	–	–	–	–	–	–	–	●*2	●*2	–	–
Remote monitoring management	–	–	–	–	–	–	–	–	–	–	–	●	●	○	●
Energy-saving management	–	–	–	–	–	–	–	–	–	–	–	–	–	○	○
E-mail notification in case of failure	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●
Key lock	● Child lock	● Child lock	● Child lock	● Child lock	–	–	–	–	–	–	● Child lock	● Password setting	● Password setting	● Password setting	● Password setting
Low noise mode	–	–	–	–	–	–	–	–	–	–	–	●	●	●	●

*1 "Operation mode" setting not available.
*2 Available only for external input control.
*3 Monitoring sites can be set up.
　The main unit side can only be operated to cancel the settings.
*4 Available only when using Wired remote controller.
*5 UTY-DCGYZ3 only

●: Supported　○: Optional function　–: Unsupported

CONTROL SYSTEM & OPTIONAL PARTS

Wired remote controller (Design type)
UTY-RVRY

NEW

Up to
16 indoor units
Up to
1 group

FEATURED FINALIST 2023

reddot winner 2024

GOOD DESIGN AWARD 2022

Simple and stylish design that harmonizes with the space

• The new stylish design controller, UTY-RVRY, enables intuitive operation with touch screen. It is compatible with many 2-wired indoor units.

Harmonizes with the Installation Space

When not in use, the controller is a part of the interior décor.
This is achieved by using mirrors, glass, and clear panels, and it appears to be one with the wall.
The sleek and stylish design won the 2022 Good Design Award and was selected as a finalist for the 2023 IDEA award.

Intuitive operation

The touch screen is easily operated by swiping vertically and horizontally, and users can operate the controller without using manuals.

Temp. Setting   Operation Mode

Status LED Colors

When not in use, the operation mode is indicated through LED lamp colors shown under the controller.
The LED lamp can be switched ON and OFF to avoid glare at night.

Blue: Cooling   Red: Heating

Green: Dry   Purple: Auto

Features: Wired Remote Controller (Design type)

Refrigerant cycle monitor

The controller will display specific sensor values of outdoor and indoor units for maintenance and service support.

* Display screen example
* This function is only supported by split units, using the **H**-Serial communication protocol! Example: ASY**H**30KMTB

Logo Display

The controller can display hotel logos when not in use. Images are sent via Bluetooth® connection where data is saved in the flash memory built into each controller.

* Color display available

Bluetooth

Smartphone

Wired remote controller
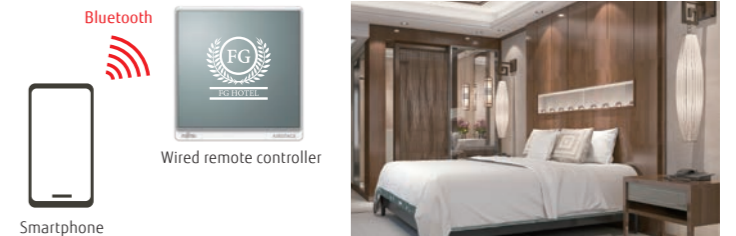
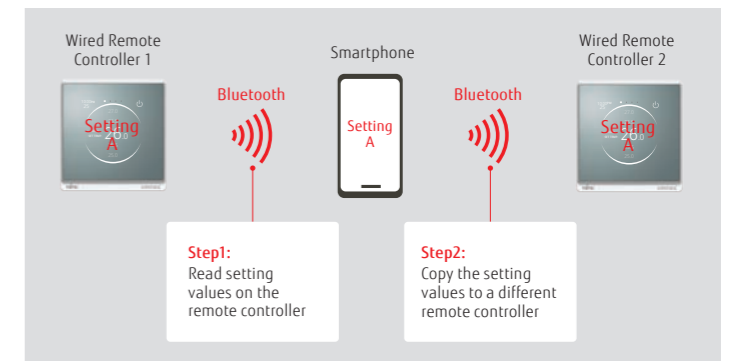### AIRSTAGE Remo Set application (free download)

Set up your new Wired Remote Controller via Bluetooth from your smartphone (or directly at the controller).

Features:
• Initial configuration
• Function setting
• Custom logo import
• Copy settings between controllers

Bluetooth

Smartphone   Wired remote controller

App Store
For iOS

Google Play
For Android
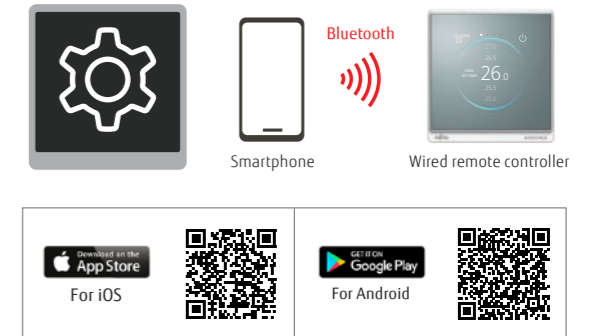
Initial Settings / Indoor Unit Function

The initial controller settings and indoor unit function settings can be sent from a smartphone by pairing with the controller via Bluetooth. It also can read the setting values of a paired controller, and send a copy of them to one or more additional controllers, significantly reducing installation time.

Wired Remote Controller 1   Smartphone   Wired Remote Controller 2

Setting A   Bluetooth   Setting A   Bluetooth   Setting A

Step1:
Read setting values on the remote controller

Step2:
Copy the setting values to a different remote controller

*Smartphone : Wired Remote Controller = 1 : 1

Specifications

Model name	UTY-RVRY
Power Source	DC12V
Dimensions (H × W × D) (mm)	121.5 × 116 × 26
Weight (g)	225

CONTROL SYSTEM & OPTIONAL PARTS

Wired remote controller (with touch panel)
UTY-RNRYZ5

Up to
16 indoor units

Up to
1 group

Easy operation due to large high-resolution STN-LCD touch panel screen

- Touch screen LCD
- Built-in daily/weekly timer (ON/OFF, temperature, modes)
- Backlit screen for easy operation in the dark.
- Room temperature display
- Controls up to 16 indoor units
- Supports 12 languages: Chinese, Dutch, English, French, German, Greek, Italian, Polish, Portuguese, Russian, Spanish, and Turkish
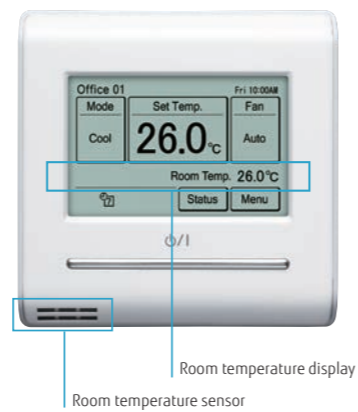- Nonpolar 2-core type

High performance and compact size

A single remote controller controls each connected indoor unit and provides a weekly timer function and a variety of energy-saving options.

Individual control + Thermo sensor + Weekly timer + Auto-off timer →

Accurate control for comfort

A thermo sensor built into the remote controller monitors room temperature accurately.

Office 01   Fri 10:00AM
Mode | Set Temp. | Fan
Cool | **26.0**℃ | Auto
Room Temp. 26.0℃
Status | Menu

Room temperature display

Room temperature sensor

Energy saving controls

Custom Auto
- Maintains 2 separate setpoints for heating and cooling operations.
- Automatically switches between heating and cooling modes.

* Not available for some models

Cooling set temp. 27℃, Heating set temp. 26℃

At start of operation
Change over
Cooling setpoint
Heating setpoint
Change over
Auto Changeover
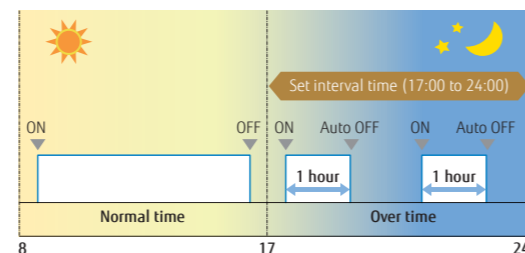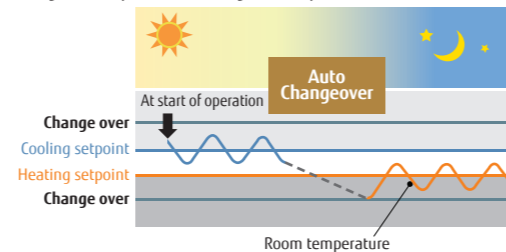Room temperature

Auto-off timer
- While the Auto-off timer is activated, if the set off time is specified as, for example, one hour, the power will automatically turn off one hour after the start of operation.
- A desired time frame can be specified for the Auto-off timer.
- The off-time can be set from 30 to 240 minutes.

2-setting weekly timer
Set temperature auto return
Setting temperature range limitation

Set interval time (17:00 to 24:00)
ON   OFF | ON   Auto OFF | ON   Auto OFF
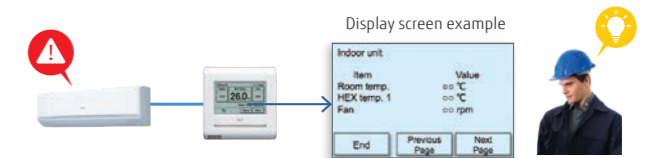1 hour   1 hour
Normal time | Over time
8   17   24

e.g.) Between 17:00 and 24:00 (over time hours), when the 1 hour set off time has elapsed, the system will automatically turn off the indoor unit as it

---

Features: Wired Remote Controller (Touch Panel)

Refrigerant cycle monitor (Option)

Wired Remote Controller (Touch Panel) will support to display some sensor values for maintenance and service support.

* This function is only supported by split units, using the
 H-Serial communication protocol! Example: ASY**H**30KMTB

Display screen example

Indoor unit
Item | Value
Room temp. | ℃
HEX temp. 1 | ℃
Fan | rpm
End | Previous Page | Next Page

Multi System Control*1

1) Lead Lag Operation
Standby Indoor Unit can be selected in lead lag operation.
By this, the Indoor units will last longer than operating by nonstop.

COOLING → STANDBY → COOLING
STANDBY | COOLING | STANDBY
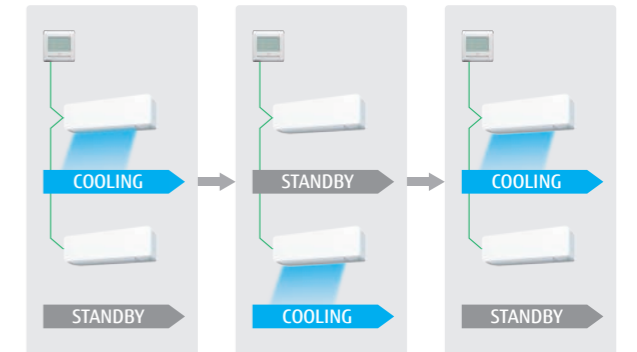
2) Back up operation
In case of unexpected Indoor unit error, other Indoor units will start providing back up operation.

COOLING → STOP → STOP
STANDBY | STANDBY | COOLING BACK UP OPERATION!
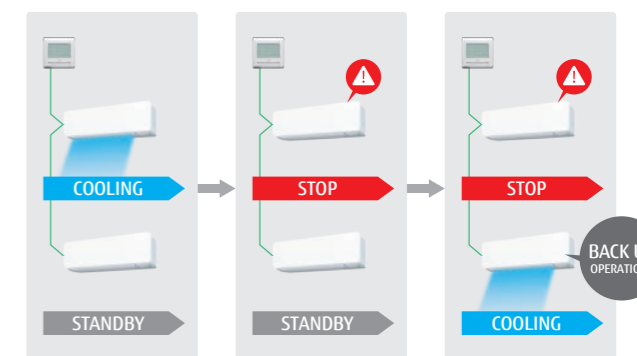
3) Lag Operation
In case of unexpected room temperature rise, other Indoor Units will start providing lag operation.

COOLING → COOLING → COOLING NOT ENOUGH CAPACITY
STANDBY | STANDBY | COOLING SUPPORT !
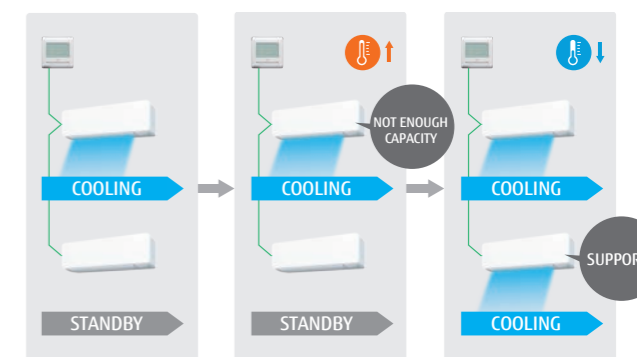
*1: "Lead Lag Setting" is an easy-to-use function for room temperature control when using multiple indoor units, while reducing the burden placed on each indoor unit.
If you wish to make use of this function, ensure you use indoor units equipped with a "Special Cooling" function.
For Split products with "Special Cooling" function, refer to S-068 to S-071.
If you use indoor units that do not have a "Special Cooling" function, under certain conditions, there is a chance that "Backup operation" may not operate correctly, and the "Lead Lag Setting" function will not give the expected results.
Additionally, for rooms that require strict conditions, such as server rooms, please consider other appropriate measures.
Please note that we will not provide compensation for any damages suffered to your appliances or data as a result of using this function.
For more details, please confirm with your nearest retail store.

Specifications

Model name	UTY-RNRYZ5
Power Source	DC 12 V
Dimensions (H × W × D) (mm)	120 × 120 × 20.4
Weight (g)	220

DC 12 V is supplied by the indoor unit.

CONTROL SYSTEM & OPTIONAL PARTS

Wired remote controller
UTY-RLRY

- ON/OFF/Weekly timer settings
- A built-in thermo sensor monitors and controls room temperature accurately.
- When something goes wrong, an error code is displayed.
- 16 error codes from the most recent one will be kept in the history. (Last 16 error codes can be accessed)
- Nonpolar 2-core type

Up to
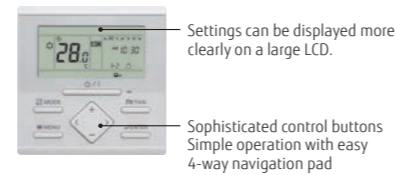**16** indoor units
Up to
1 group

High performance and compact size

A single remote controller controls each connected indoor unit and provides a weekly timer function and a variety of energy-saving options.
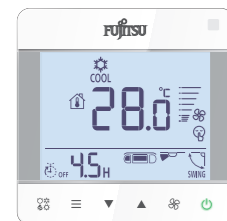
Individual control + Thermo sensor + Weekly timer + Auto off timer →

Visually intuitive operation

- The operation mode, set temperature, and fan speed are shown prominently on the top screen.
- Each function to be set is indicated by an icon.
- The control guide makes it simple and straightforward to operate a remote controller.

Settings can be displayed more clearly on a large LCD.

Sophisticated control buttons Simple operation with easy 4-way navigation pad

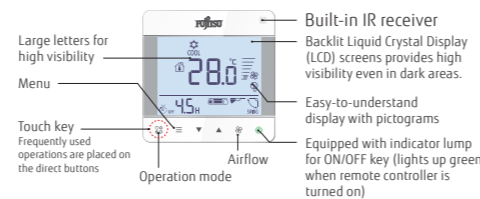# Compact wired remote controller
UTY-RCRYZ1

- Simple design that matches stylish interiors
- The body of the controller, which is easy to install, is designed to conform to the European standard junction box.
- Can be operated both by wireless and wired remote controller.
- Nonpolar 2-core type

Up to
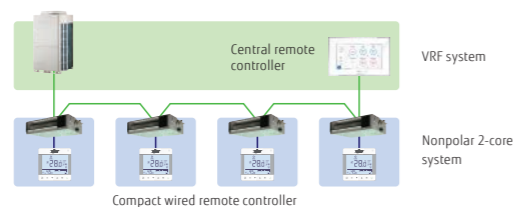**1** indoor units
Up to
1 group

Large screen and simple display

- Large screen but compact size
- Large, easy-to-read letters are used.
- The controls are simple and easy to understand.

Large letters for high visibility

Menu

Touch key
Frequently used operations are placed on the direct buttons

Operation mode

Built-in IR receiver

Backlit Liquid Crystal Display (LCD) screens provides high visibility even in dark areas.

Easy-to-understand display with pictograms

Equipped with indicator lamp for ON/OFF key (lights up green when remote controller is turned on)

Airflow

System overview

VRF connection

Central remote controller

VRF system

Compact wired remote controller

Nonpolar 2-core system

RAC connection

Room Air Conditioning System

Compact wired remote controller

Nonpolar 2-core system
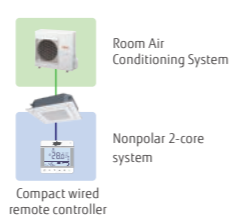
Specifications

Model name	UTY-RLRY	UTY-RCRYZ1
Power source	12 V DC	12 V DC
Dimensions (H × W × D) (mm)	120 × 120 × 17	86 × 86 × 44
Weight (g)	170	135

12 V DC supplied by an indoor unit

Wired remote controller
UTY-RVNYM

Hi-grade individual control with a wide range of functions.

- 3.7-inch backlit LCD screen.
- Supports energy-saving functions with simple operation.
- Supports 9 languages:
  English, French, German, Greek, Italian, Portuguese, Russian, Spanish, and Turkish

Up to
16 indoor units
Up to
1 group

Visually intuitive operation

- Each function is displayed as an icon.
- Main functions are indicated by large icons: "Mode," "Set Temp," and "Fan"
- Easy operation with control guide display
- Simple operation with easy 4-way navigation pad
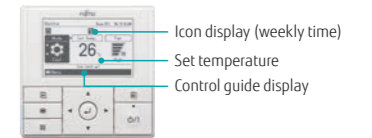
Icon display (weekly time)
Set temperature
Control guide display

High performance and compact size

- A single remote controller controls each connected indoor unit and provides a variety of energy-saving options.

Individual control + Thermo sensor + Weekly timer + Auto-off timer →
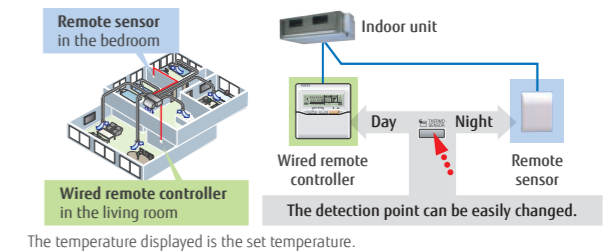
Wired remote controller
UTY-RNNYM

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

Up to
16 indoor units
Up to
1 group

Accurate control for comfort

A thermo sensor built into the remote controller monitors room temperature accurately. The wired remote controller and an optional Remote sensor can be installed in any location to meet any requirement.

Examples of sensor changes

Remote sensor in the bedroom

Indoor unit

Day Night

Wired remote controller

Remote sensor

Wired remote controller in the living room

The detection point can be easily changed.

The temperature displayed is the set temperature.

Built-in timer

Weekly timer: ON/OFF time can be set to operate twice for each day of the week.
Temperature setback timer: Sets the time to change the temperature setting and the time to hold the setting for each day of the week.
At "Weekly timer" + "Temperature setback timer" setup

Specifications

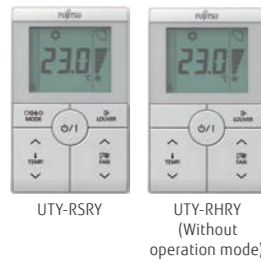| Model name	UTY-RVNYM	UTY-RNNYM
Power source	12 V DC	12 V DC
Dimensions (H × W × D) (mm)	120 × 120 × 21.3	120 × 120 × 18
Weight (g)	220	160

12 V DC supplied by an indoor unit

CONTROL SYSTEM & OPTIONAL PARTS

Simple remote controller
UTY-RSRY / UTY-RHRY (without operation mode)

UTY-RSRY

UTY-RHRY
(Without operation mode)

Up to
16 indoor units

Up to
1 group

Compact remote controller with basic functionality

• 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.
• Simple design that matches stylish interiors
• Large LCD screen and easy-to-use control buttons
• Backlight: White backlight makes it easy to operate in the dark.
• Nonpolar 2-core type

Supports a variety of applications

•**Vertical louver control:** Adjusts the vertical airflow direction of a duct-type indoor unit with an auto louver or a cassette type installed in a hotel room or a conference room.

• **Setting temperature range limitation:** Enables an indoor unit to operate in an energy-saving manner in a small building not equipped with a central remote controller.

During Cooling
30℃
25℃
18℃

During Heating
30℃
25℃
16℃
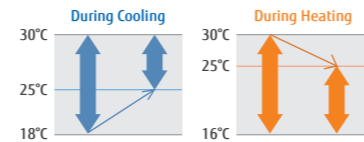
• **Built-in room temperature sensor:** Monitors and controls room temperature accuracy.
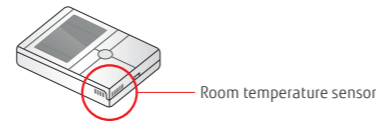
Room temperature sensor

Wireless remote controller
UTY-LNTY

Up to
16 indoor units

Up to
1 group

Up to
4 different daily timers

Simple and versatile operations with a choice of 4 different types of timers

• Controls up to 16 indoor units.

Built-in timer

4 timer programs: ON/OFF/Program/Sleep
Program timer: Sets ON/OFF time once for every 24 hours.
Sleep timer: Adjusts the set temperature automatically while the sleep timer is on.

Easy installation and operation

Different codes can be assigned to up to 4 indoor units to prevent a mix-up.
Wide and precise transmitting range

Specifications

Model name	UTY-RSRY	UTY-RHRY	UTY-LNTY
Power source	12 V DC	12 V DC	3.0V (1.5V R03/LR03/AAA x 2)
Dimensions (H × W × D) (mm)	120 × 75 × 19.4	120 × 75 × 19.4	205 × 61 × 17
Weight (g)	120	120	125

12 V DC supplied by an indoor unit

Wireless remote controller
UTY-LNVY

NEW

Up to
16 indoor units

Up to
1 group

Up to
4 different daily timers

New stylish design with backlight

• It has adopted a new simple and stylish design.
• The built-in backlight allows the screen to be seen even in dark rooms.

Built-in timer

4 timer programs: ON/OFF/Program/Sleep
Program timer: Sets ON/OFF time once for every 24 hours.
Sleep timer: Adjusts the set temperature automatically while the sleep timer is on.

Error diagnosis

It can detect the reason for system errors easily.
When an error is detected, the error code number can be checked using the remote controller display.

Precise control

The setting temperature can be adjusted precisely depending on the environment as the controller can set the temperature via 0.5 ℃*.

*Depends on the indoor unit

Wireless remote controller
UTY-LNHY

Up to
16 indoor units

Up to
1 group

Up to
4 different daily timers

Simple and versatile operations with a choice of 4 different types of timers

• Controls up to 16 indoor units.

Built-in timer

4 timer programs: ON/OFF/Program/Sleep
Program timer: Sets ON/OFF time once for every 24 hours.
Sleep timer: Adjusts the set temperature automatically while the sleep timer is on.

Easy installation and operation

Different codes can be assigned to up to 4 indoor units to prevent a mix-up.
Wide and precise transmitting range

Specifications

Model name	UTY-LNVY	UTY-LNHY
Battery	3.0V (1.5V R03/LR03/AAA x 2)	3.0V (1.5V R03/LR03/AAA x 2)
Dimensions (H × W × D) (mm)	181 × 58 × 17	170 × 56 × 19
Weight (g)	116	85

12 V DC supplied by an indoor unit

CONTROL SYSTEM
& OPTIONAL PARTS

IR receiver unit for duct type
UTY-LRHYM / UTY-LBTYM
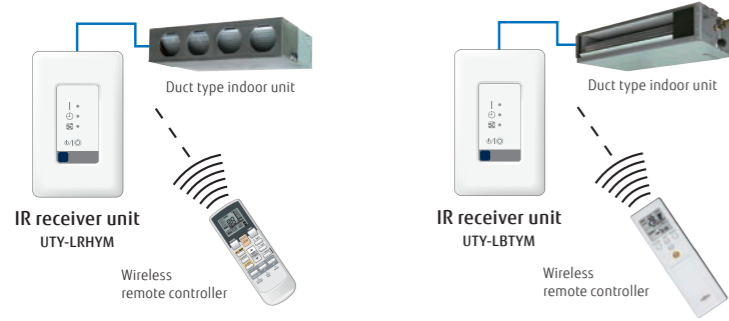
Duct type indoor unit

Duct type indoor unit

IR receiver unit
UTY-LRHYM

IR receiver unit
UTY-LBTYM

Wireless
remote controller

Wireless
remote controller

The wireless remote controller controls duct type indoor units.

IR receiver unit for Cassette
UTY-LBTYC

Cassette type indoor unit can be controlled with a Wireless remote controller.

IR receiver unit
UTY-LBTYC

Wireless
remote controller

IR receiver unit for ceiling type
UTY-LBTYH

The wireless remote controller controls ceiling type indoor units.

IR receiver unit
UTY-LBTYH

Wireless
remote controller

Specifications
< Wireless Remote Controller >

Model name	UTY-LRHYM	UTY-LBTYM	UTY-LBTYC	UTY-LBTYH
Battery	1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)
Dimensions (H × W × D) (mm)	170 × 56 × 19	205 × 61 × 17	205 × 61 × 17	205 × 61 × 17
Weight (g)	85	125	125	125
< IR Reciver Unit>				
Battery	DC5V	DC5V	DC5V	DC5V
Dimensions (H × W × D) (mm)	145 × 90 × 30	145 × 90 × 30	-*	-*
Weight (g)	150	150	140	100

DC 5 V is supplied the indoor unit.
*It will replace the parts of the indoor unit to be connected.

IR receiver unit for duct type
UTB-YWC / UTY-TRHX

The wireless remote controller controls duct type* indoor units.

*Large airflow duct types do not work with this IR receiver unit.

Duct type indoor unit

Duct type indoor unit

IR receiver unit
UTB-YWC

IR receiver unit
UTY-TRHX

Wireless
remote controller

Wireless
remote controller

*A separate wireless remote control (model: UTY-LNHY) is required.

IR receiver unit for Cassette
UTY-LBHXD / UTY-TRHX

Cassette type indoor unit can be controlled with a Wireless remote controller.

IR receiver unit
UTY-LBHXD

Wireless
remote controller

IR receiver unit
UTY-TRHX

Wireless
remote controller
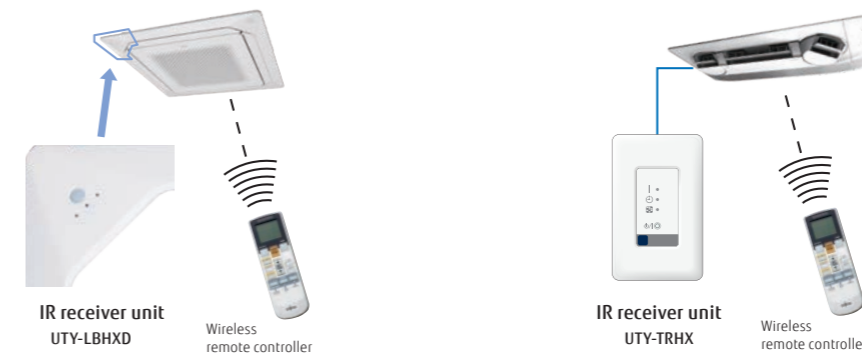
*A separate wireless remote control (model: UTY-LNVY or UTY-LNHY) is required.

Specifications
< Wireless Remote Controller >

Model name	UTB-YWC	UTY-LBHXD	UTY-TRHX
Battery	1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)	1.5 V (R03/LR03/AAA)
Dimensions (H × W × D) (mm)	170 × 56 × 19	170 × 56 × 19	170 × 56 × 19
Weight (g)	85	85	85
< IR Reciver Unit>			
Battery	DC5V	DC5V	DC5V
Dimensions (H × W × D) (mm)	145 × 90 × 30	-*	145 × 90 × 30
Weight (g)	150	140	150

DC 5 V is supplied the indoor unit.
*It will replace the parts of the indoor unit to be connected.

CONTROL SYSTEM
& OPTIONAL PARTS

WLAN adapter
UTY-TFSXH3 / UTY-TFSXJ3

USB type for single split models
UTY-TFSXH3

UTY-TFSXJ3
(CN connector type)

Up to
1 indoor units

AIRSTAGE Mobile

"AIRSTAGE Mobile" is an application software that enables you to manage the Fujitsu General's air conditioner(s) with a mobile device from anywhere.

• Maximum 5 accounts per 1 indoor unit
• Room / Outdoor temperature display
• Can be used for a Single / Multi and VRF indoor units.
• No separate external power supply required
• "AIRSTAGE Mobile" is an application software that enables you to operate the Fujitsu General's air conditioners with a mobile device.

Download on the App Store
GET IT ON Google Play
For iOS
For Android
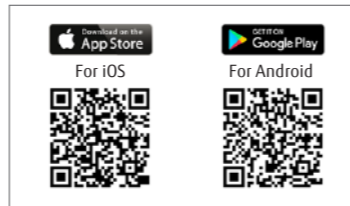
User Friendly for Everyone

Enjoy easy-to-use centralized operation of air conditioners via a smartphone anytime, anywhere

Shop Owner

Commercial Building Owner

House Owner

Image*

Main Functions

• ON / OFF
• Operation mode
• Fan speed
• Louver position
• Set temperature control
• Weekly timer
• Room temperature display
• Outdoor temperature display
• Error display

*Contents of display differ depending on the type of indoor unit.

New Design!

Ease of use is pursued to achieve a stylish design.

The more legible and accessible timer UI enables effortless schedule management.
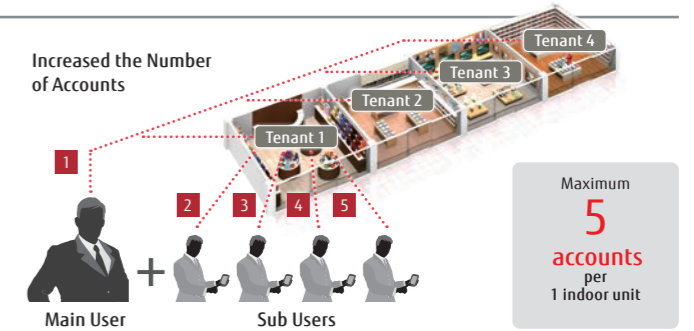
Mode change   Fan speed change   Weekly timer
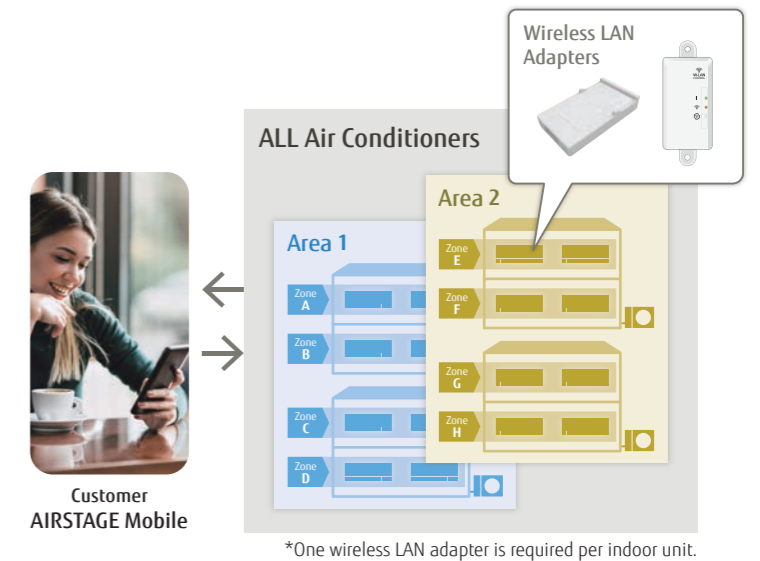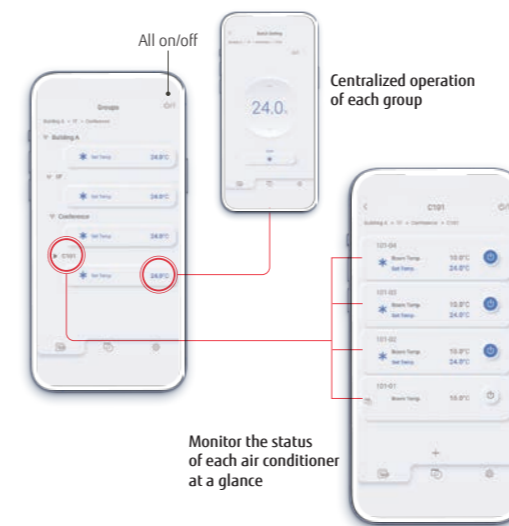

Features: AIRSTAGE Mobile

Centralized operation for flexible remote management of all air conditioners

AIRSTAGE Mobile is ideal for a wide range of applications, from large residential buildings to smaller commercial spaces such as offices and stores.
Anyone who has a smartphone and an adapter can easy to manage the system at a low cost.

Increased the Number of Accounts

Tenant 4
Tenant 3
Tenant 2
Tenant 1

Main User   Sub Users

Maximum
5
accounts
per
1 indoor unit

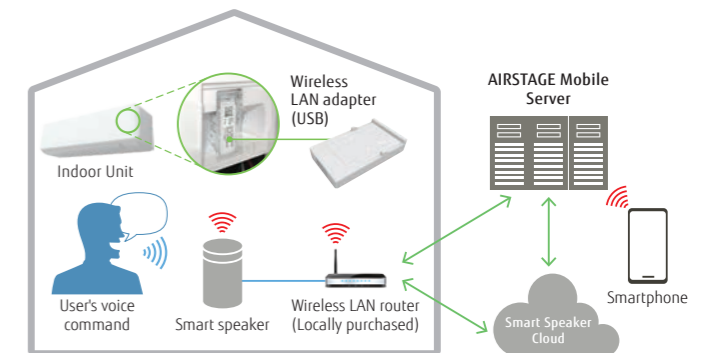## Hierarchical group management

Multiple air conditioners can be combined into a single group for centralized operation. Several groups can also be organized at once.
Grouping the air conditioners by building, floor, or room makes it easy for users to monitor their operation status and operate them quickly.

All on/off

Centralized operation of each group

Monitor the status of each air conditioner at a glance

Customer
AIRSTAGE Mobile

Wireless LAN Adapters

ALL Air Conditioners

Area 1

Area 2

Zone A
Zone B
Zone C
Zone D
Zone E
Zone F
Zone G
Zone H

*One wireless LAN adapter is required per indoor unit.

Operate air conditioner and check its operation status just by talking to it

Connecting with a smart speaker allows the user to operate the air conditioner and check its operation status just by talking to it.

Indoor Unit

Wireless LAN adapter (USB)

AIRSTAGE Mobile Server

User's voice command   Smart speaker   Wireless LAN router (Locally purchased)   Smart Speaker Cloud   Smartphone

* The new WLAN adapters for AIRSTAGE Mobile are upper compatible for the indoor units that can connect the following WLAN adapters for FGLair.

	CN connector type	USB type
for FGLair	UTY-TFSXZ1	UTY-TFSXF2
for AIRSTAGE Mobile	UTY-TFSXJ3	UTY-TFSXH3

Specifications

Model name	UTY-TFSXJ3(CN connector type)	UTY-TFSXH3
Dimensions (H × W × D) (mm)	71 × 38 × 15	56.7 × 34 × 9.72
Weight (g)	35	30

WLAN adapter
UTY-TFNXZ1 / UTY-TFSXZ1 / UTY-TFSXF2


USB type for single-split models
UTY-TFSXF2

UTY-TFNXZ1
(3-wire RC-line type)
UTY-TFSXZ1
(CN connector type)

Up to
1 indoor units

FGLair™

- This interface provides the most advanced solution for the remote management of an air conditioning system by using smartphones, tablets, and computers.
- No separate external power supply required
- Can be used for a Single / Multi and VRF indoor units.
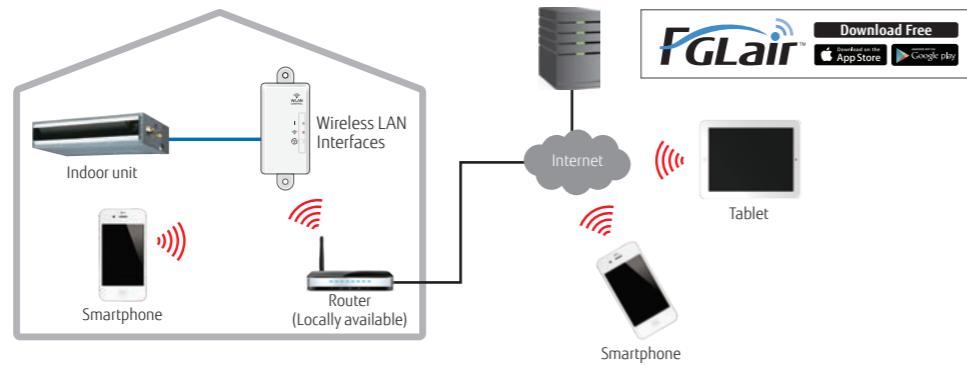
Download Free
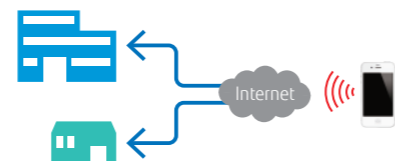App Store / Google play

Basic control

- Turning the units on and off
- Mode control (Heat, Cool, Dry, Auto, Fan)
- Fan speed control
- Louver position (airflow direction setting)
- Timer operation setting (Weekly timer)
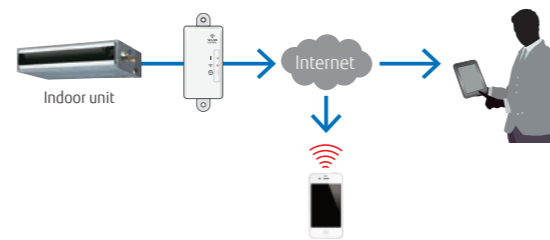- Economy mode setting

Multi-split system
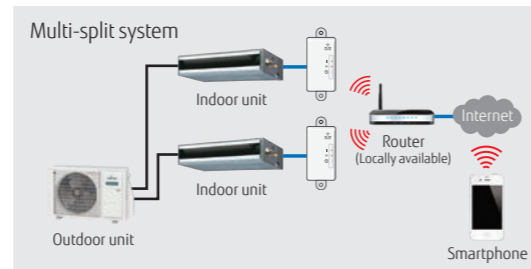
Multiple air conditioning management

- Manage multiple air conditioning systems in different locations.

Error alert and e-mail notice

- E-mail notification alerts
- Air conditioning malfunction alert
- Enables quick service response when errors occur.

WLAN adapter (USB type)
UTY-TFSXF2

A compact USB type is available. No need for specialized installation. Easily installed on the indoor unit.

Specifications

Model name	UTY-TFNXZ1 (3-wire RC-line type)	UTY-TFSXZ1 (CN connector type)	UTY-TFSXF2
Dimensions (H × W × D) (mm)	71 × 38 × 15	71 × 38 × 15	56.7 × 34 × 9.72
Weight (g)	35	35	30

C-022

WLAN adapter
FG-RC-WIF1Z2 / FG-IR-WIF1Z1 / FG-AC-WIF1Z1

Intesis® BY HMS NETWORKS
FG-RC-WIF1Z2
(3-wire RC-line type)

Intesis® BY HMS NETWORKS
FG-AC-WIF1Z1
(CN connector type)

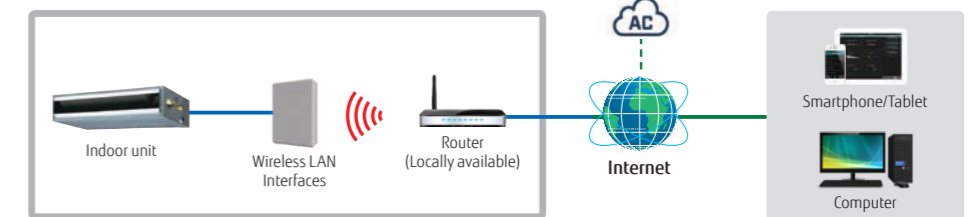Intesis® BY HMS NETWORKS
FG-IR-WIF1Z1
(IR type)

Up to
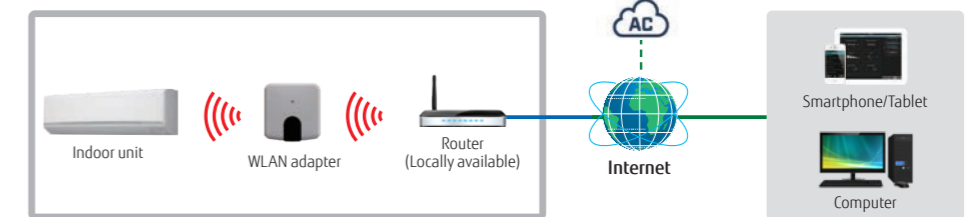**1** indoor units

AC Cloud Control

- This interface provides the most advanced solution for the remote management of an air conditioning system by using smartphones, tablets, and computers.
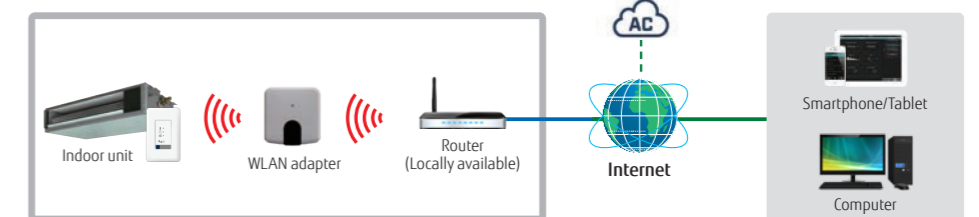- No separate external power supply required

Installation example

[3-wire RC-line type/CN connector type]

[IR type] Connection to wall-mounted type

[IR type] Connects to the product with the optional receiver kit

*IR receiver required.

Basic control

- Turning air conditioner on and off
- Mode select (Heat, Cool, Dry, Auto, Fan)
- Louver position (airflow direction setting)
- Fan speed control
- Room temperature display
- Setting temperature
- Multiple language support
- One single scene is created.

Advanced control (optional functions)

- Climate-based operation modes (ECO, Comfort, and Powerful) (to be available in the future)
- Schedule functions (ON/OFF, modes, set temperature, fan speed, louver position)
- Setting temperature range limitation
- Multiple Scenes and Calendars are created.
- Smart Speaker compatibility
- Advanced internet service connections

Notification and operation history

- E-mail notification alerts
- Air conditioning malfunction alert
- Connectivity monitoring and alert
- Operation history (to be available in the future)

Specifications

Model name	FG-RC-WIF1Z2 (3-wire RC-line type)	FG-AC-WIF1Z1 (CN connector type)	FG-IR-WIF1Z1 (IR type)
Number of controllable groups	1	1	1
Dimensions (H × W × D) (mm)	108 × 70 × 28	81 × 78 × 28	127 × 50 × 17
Weight (g)	80	76	80

CONTROL SYSTEM & OPTIONAL PARTS

C-023

Multiple protocol WLAN adapter
FG-RC-WMP1Z1 / FG-IR-WMP1Z1 / FG-AC-WMP1Z1

Intesis®
BY HMS NETWORKS

FG-RC-WMP1Z1
(3-wire RC-line type)

Intesis®
BY HMS NETWORKS

FG-AC-WMP1Z1
(CN connector type)

Intesis®
BY HMS NETWORKS

FG-IR-WMP1Z1
(IR type)

Up to
1 indoor units

AC Cloud Control

• Air conditioner control of Home Automation systems via wireless LAN connection.
• No separate external power supply required

Installation example

[3-wire RC-line type/CN connector type]

Indoor unit   WLAN adapter   Router (Locally available)   Home controller or Smart hub for multiple protocol   Smartphone/Tablet   Computer

[IR type]

Indoor unit   WLAN adapter   Smart HUB or Router (Locally available)   Home controller or Smart hub for multiple protocol   Smartphone/Tablet   Computer

*IR receiver required for other than wall-mounted type.

Specifications

Model name	FG-RC-WMP1Z1 (3-wire RC-line type)	FG-AC-WMP1Z1 (CN connector type)	FG-IR-WMP1Z1 (IR type)
Number of controllable groups	1	1	1
Dimensions (H × W × D) (mm)	70 × 100 × 28	127 × 50 × 17	81 × 78 × 28
Weight (g)	98	80	76

Multiple protocol LAN adapter
FG-TL-MBS16Z1

Intesis®
BY HMS NETWORKS

UL LISTED

FG-TL-MBS16Z1
(VRF type)

Up to
16 indoor units

Installation example

[VRF type]

Multiple protocol LAN adapter   Home controller or Smart hub for multiple protocol   Smartphone/Tablet   Computer

*No separate external power supply required

Specifications

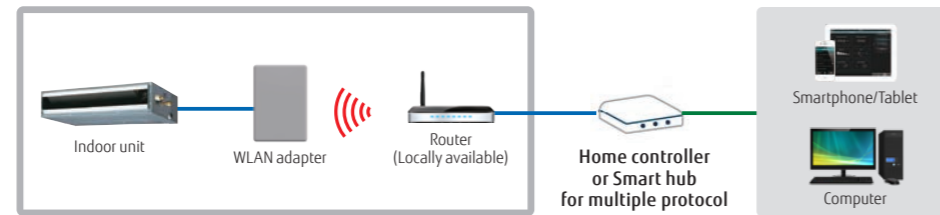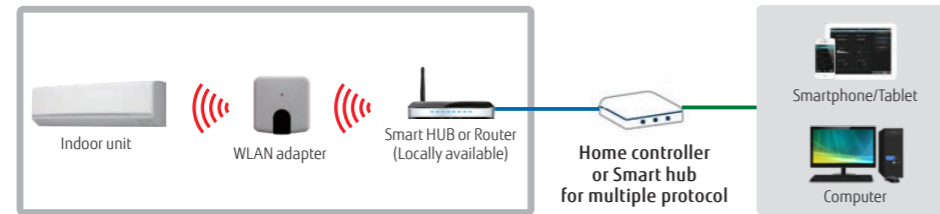| Model name	FG-TL-MBS16Z1 (VRF type)
Power supply	9 to 36 V DC, Max.: 140 mA or 24 V AC 50/60 Hz, Max.: 127 mA.*
Input power (W)	1.7
Dimensions (H × W × D) (mm)	90 × 88 × 56
Weight (g)	330

*24 V DC power supply is recommended.

Home central remote controller
**UTY-DMMYM / UTY-DMMYM1**

Up to
1 multi-split system
Up to
6 indoor units

For 5-unit and 6-unit multi-split type

• Batched control of up to 6 indoor units For all indoor units connected to the remote controllers, the Home central remote controller sets room temperature, airflow volume, and remote controller prohibition from other remote controllers at once.
• Supports 9 languages: English, French, German, Greek, Italian, Portuguese, Russian, Spanish, and Turkish.
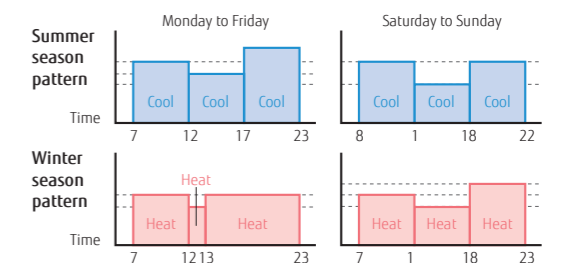• Large backlit LED screen
• Large, easy-to-see operation panel

Example of system configuration

—— Remote controller cable
—— Power & Transmission line
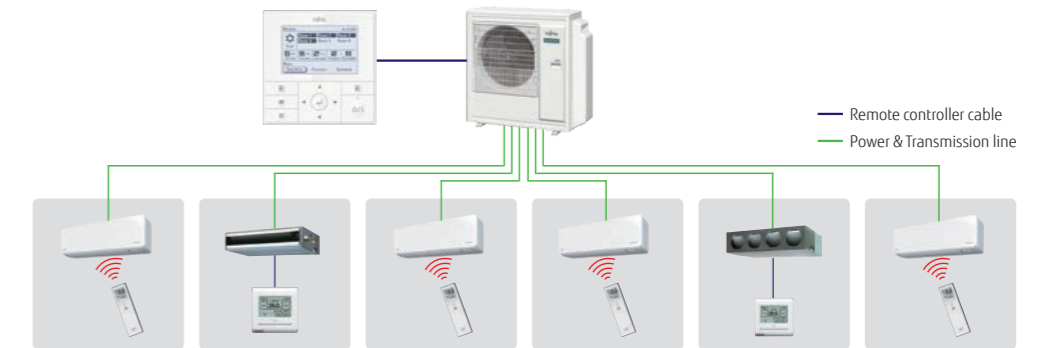
Home central remote controller

Weekly timer
Up to 4 ON/OFF settings can be programmed per day. Two weekly patterns can be set, one for the cooling season and the other for the heating season.

Summer season pattern	Monday to Friday	Saturday to Sunday
	Cool Cool Cool (7 12 17 23)	Cool Cool Cool (8 1 18 22)
Winter season pattern	Heat Heat Heat (7 12 13 23)	Heat Heat Heat (7 1 18 23)

Low noise operation
You can choose from 4 low noise levels depending on the installation environment. ON/OFF timing of low noise mode can be set with the timer.

10 °C heat operation
When you leave the house, the air conditioner runs a minimum heating operation to maintain the room temperature at 10°C.
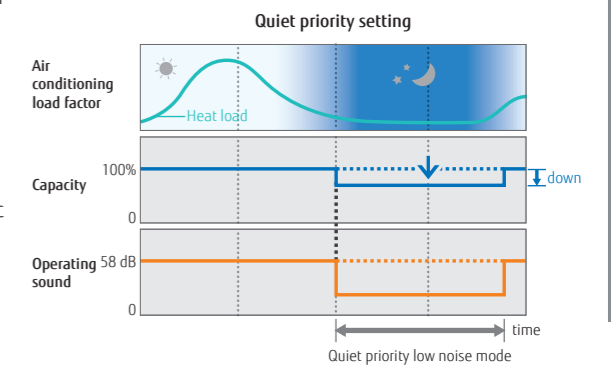*Consult your dealer for conditions of use.

Economy operation
When you select energy-saving economy mode, the temperature setting for the indoor unit increases (during cooling operation) or decreases (during heating operation) by 1°C and the maximum electric value of the outdoor unit is suppressed.

Prohibiting local control, including settings such as child lock
The Home central remote controller is equipped with a lock function to prevent unauthorized operation from the remote controllers of the indoor unit in each room. The Home central remote controller is equipped with a child lock to prevent children from accidentally turning the air conditioner on or off or changing its settings.

Quiet priority setting

Air conditioning load factor —— Heat load

Capacity 100% / 0   down

Operating sound 58 dB / 0   time

Quiet priority low noise mode

Specifications

Model name	UTY-DMMYM/UTY-DMMYM1
Power source	12 V DC
Dimensions (H × W × D) (mm)	120 × 120 × 21.3
Weight (g)	220

12 V DC supplied by an indoor unit

CONTROL SYSTEM & OPTIONAL PARTS

Central remote controller
UTY-DCGYZ3

NEW

Up to
100 indoor units
Up to
50 groups

For tenants in small to midsize commercial premises

- Individual control and monitoring of up to 100 indoor units
- 7.0inch TFT color screen
- Visually intuitive operation
- Room temperature display by indoor unit sensor & remote controller sensor
- 50 Remote Controller Groups Display & remote controller group rename
- Supports 14 languages: Chinese (Simplified/Traditional), Dutch, English, French, German, Greek, Italian, Polish, Portuguese, Russian, Spanish, Turkish, and Thai (Remote Management only)

Easy operation

Air conditioning management by detecting room temperatures of each room

The room temperature detected with indoor unit sensor or remote controller sensor can be displayed. New model can detect the room temperature by indoor units sensors even if wired remote controllers are not connected to the indoor units.

Not connected wired remote controller

: Indoor Unit Sensor

Thermistor

Connected wired remote controller

: Remote Controller Sensor / other sensors

Thermistor
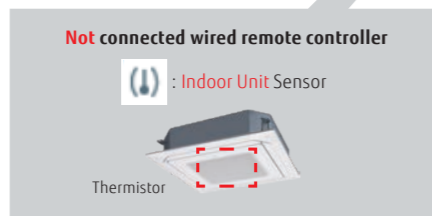
*Room temperature is displayed only when indoor unit operates.
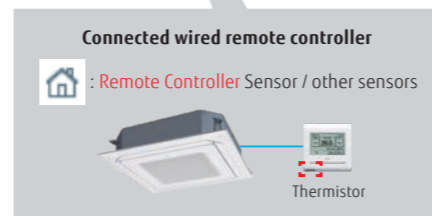
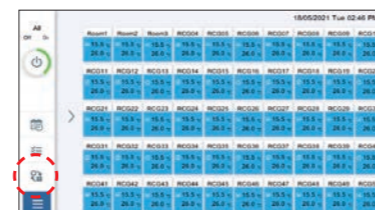### 50 Remote Controller Groups Display

The group display and the 50 remote controller groups display can be switched easily.
Users can choose which display is better, depending on the situation.

Group Display

Manage & Monitor
by each Groups

One-tap
to switch

50 Remote Controller Groups Display

Manage & Monitor
by 50 Remote Controller Groups

Remote Controller Groups Rename

The remote controller group names can be changed. Users can know easily where the air conditioning is located by changing the remote controller group names.

The remote controller group name can be changed.

Features: Central Remote Controller

- Easy intuitive operation from the touch panel display.
- All functions can be accessed through the monitoring screen showing a pop-up window for detailed operation.

Monitoring screen

Individual setting
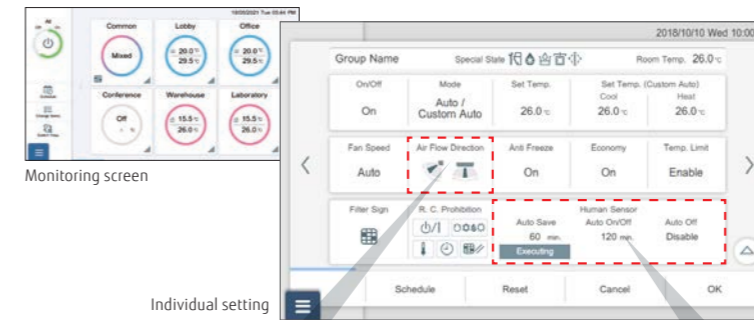
Added individual wind direction control

Individual wind direction control has been added.
Circular Flow cassette / 3D Flow cassette

Circular flow cassette

Human sensor Compatible

Human sensor setting
- Auto save
- Auto on / off
- Auto off detection time
- Enable and disable

Remote Management

Remote monitoring / Remote operation

New central remote controller can control your tenant's air conditioner anytime and anywhere.

When the central remote controller manages the indoor units of some tenants, air conditioning of each tenant can be managed separately online.

Increased the Number of Accounts

Maximum
30
accounts

Administrator
(Building owner)

Online users
(Tenant owner)
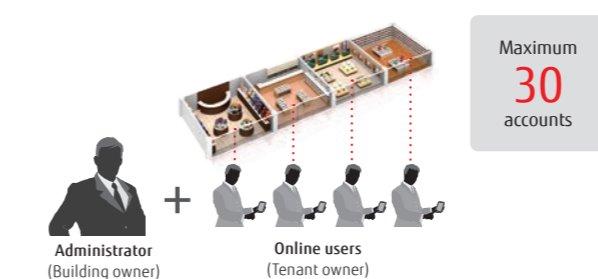
Trouble support function

Display error details
Display descriptive explanation when an error occurs

All indoor unit groups display

Display error details
- Indoor unit error
- Outdoor unit error
- Central remote controller error

Sensor value monitoring function
Monitor sensor data of indoor unit / outdoor unit, send mail

Notify room temperature by email*
Notify by e-mail when the temperature around the air conditioner is too high or too low

*:This function is available only when using wired remote controller.

NEW Schedule management

Annual schedule

- An annual schedule can be arranged for each remote controller group or user-defined group.
- Allows for the programming of special settings for weekends, holidays, and store closings throughout the year.
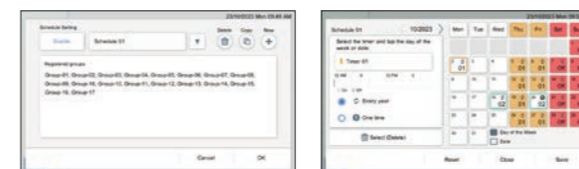
low noise schedule

Low noise operation of outdoor units can be scheduled.

Automatic return to set temperature

A function that automatically returns the changed temperature to its original value over time.

Specifications

Model name	UTY-DCGYZ3
Power Supply	100-240 V 50/60 Hz
Dimensions (H × W × D) (mm)	134.6 × 216.2 × 37.9
Weight (g)	800

CONTROL SYSTEM
& OPTIONAL PARTS

Touch panel controller
UTY-DTGYZ1

- Large 7.5-inch TFT color LCD screen
- Touch screen operation
- Stylish design to fit nicely into any room environment
- Controls up to 400 indoor units.
- Icon or list view can be selected in monitoring mode.
- Supports 7 languages: Chinese, English, French, German, Polish, Russian, and Spanish.
- Mounted with LAN adapter for remote control & operation, external input/output with emergency stop and batch ON/OFF

Up to
400 indoor units
Up to
100 outdoor units
Up to
400 groups

Easy operation

- Wide range of simple-to-understand icons
- Operate by pressing the icons on the screen with your finger or a stylus.
- The color on the back identifies the current control operation; blue is for monitoring and green is for operational control.
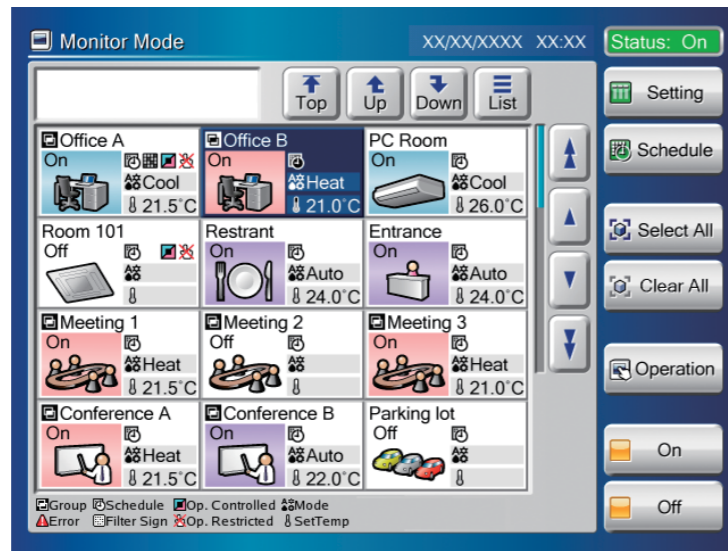
Easy maintenance

- The flat touch panel can be easily cleaned.
- Touch panel controller with non-glare coating to prevent finger marks
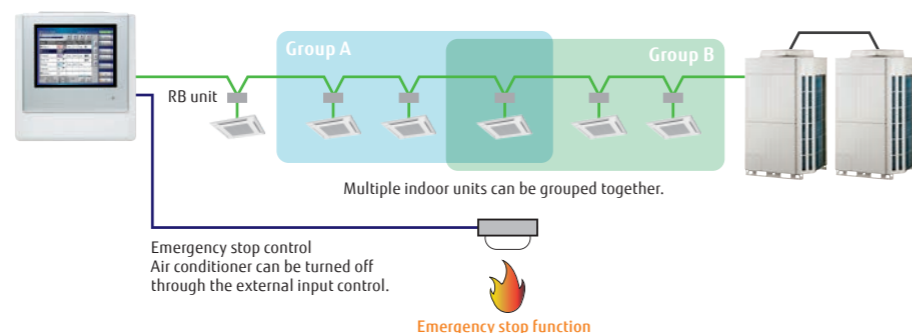- Front cover for easy removal.

Easy installation

- The touch panel controller can be mounted on a wall.
- Flat back surface enables easy installation anywhere on a wall.
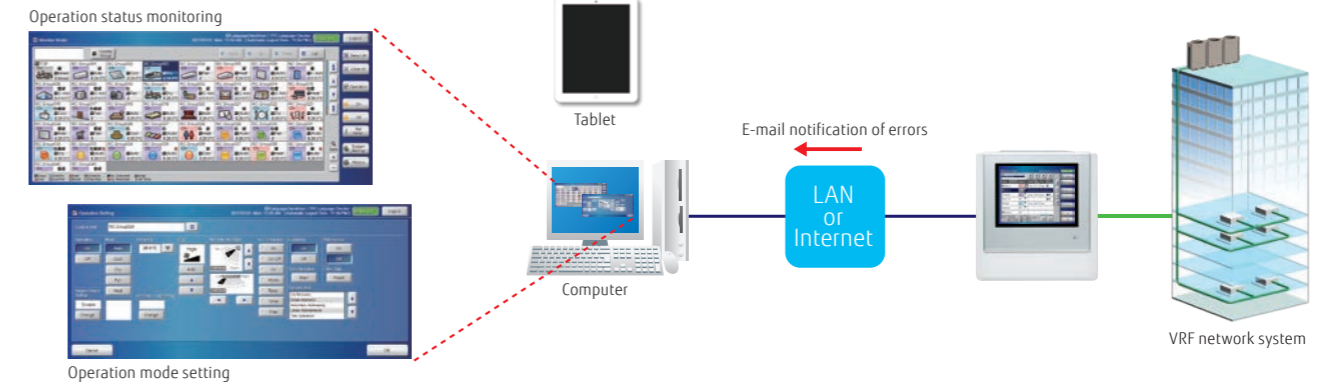- No additional parts or components required for installation

Controls up to 400 indoor units.

Multiple indoor units can be grouped together.

Emergency stop control
Air conditioner can be turned off through the external input control.

Emergency stop function

Features:

Control & monitoring

- Control and monitor Fujitsu General air conditioners via LAN or internet.
- Users and tenants can manage their assigned equipment from anywhere by computer or tablet.
- When something goes wrong, an error notice is sent by e-mail for prompt troubleshooting.

Operation status monitoring

Operation mode setting

Tablet

E-mail notification of errors

Computer

LAN or Internet

VRF network system

Smartphone

Model name	Browser
Nexus 6P (Android 7.1.1)	Google Chrome 5.5
iPhone 7 (iOS 10.1)	Safari 10

Tablet

Model name	Browser
iPad Pro 9.7 inch (iOS 10.2.1)	Safari 10

Flexible access permissions can be granted to users at each point level.

The administrator can register multiple users and permit them to access any indoor unit and any functions.

Air conditioner administrator

LAN

B User
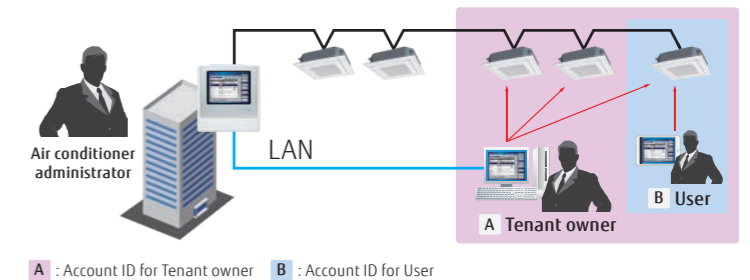
A Tenant owner

A : Account ID for Tenant owner   B : Account ID for User

Additional languages

Supports 7 languages as standard: Chinese, English, French, German, Polish, Russian, and Spanish.
Create a language database to integrate additional languages into the remote device.
The added languages will only be displayed on the remote device and cannot be added to the Touch panel controller.

Monitoring from website

Write

7 languages

Language data

7 languages + Other languages
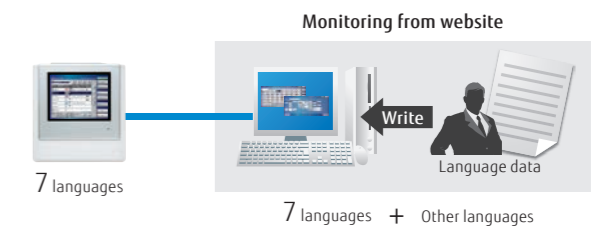
Electricity charge apportionment
(Option: UTY-PTGXA)

- Energy cost can be calculated and allocated to each billing user in proportion to the amount of energy used for air conditioning.

- Apportionment charge/bill calculation
- Tenant (block) setting
- Common facilities apportionment setting
- Rated power consumption allotment
- Individual calculations for cooling and heating
- Electricity meter supported

VRF network system

Electricity meter

Electric power company

Electricity charges

Block (Tenant) A

Block (Tenant) B

Signal line*

LAN cable
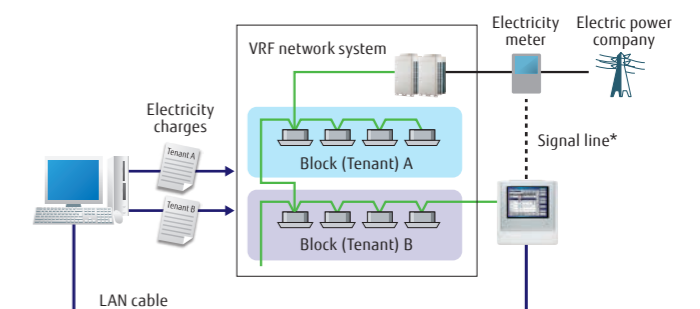
* An electricity usage meter can be connected to an external input connector of the Touch panel controller. In that case, the meter cannot be connected to an outdoor unit at the same time.

CONTROL SYSTEM & OPTIONAL PARTS

Features:

Automatic setting for daylight saving time

Functions provided

1) Schedule setting for daylight saving time
   - It prevents the user from forgetting to set daylight saving time. In addition, it saves time and effort for the user.

Automatic clock adjustment

2) Time can be set for all controllers in a batch automatically.

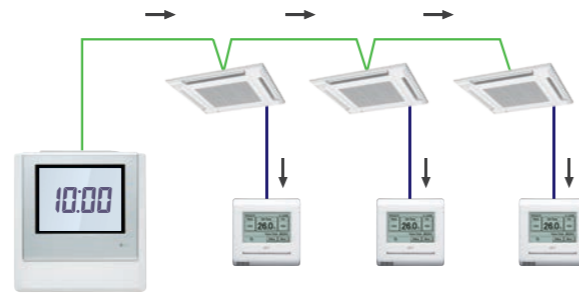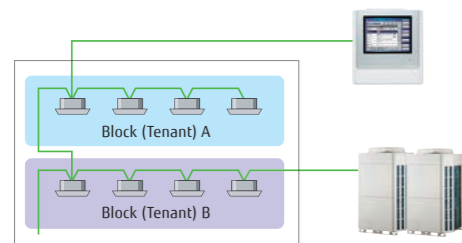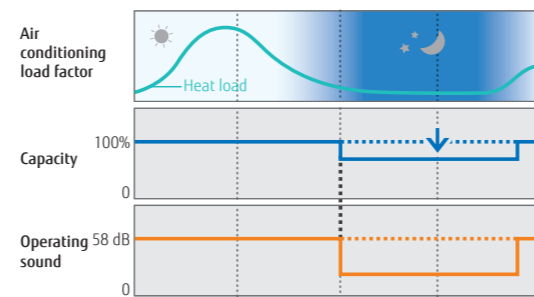## Outdoor unit low noise operation

You can choose from 4 low noise levels depending on the installation environment.
ON/OFF timing of low noise mode can be set with the timer.

Block (Tenant) A

Block (Tenant) B

Quiet priority setting

Air conditioning load factor

Heat load

Capacity
100%
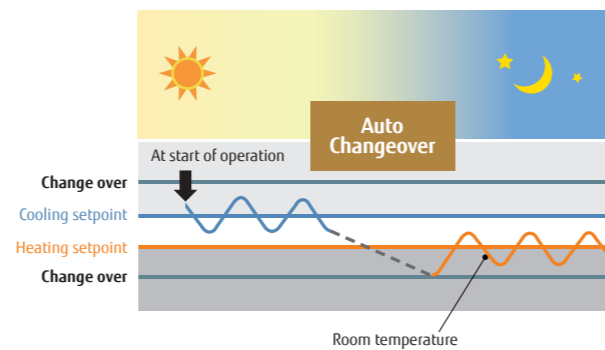0

Operating sound 58 dB
0

Energy-saving controls

Custom Auto
- Maintains 2 separate setpoints for heating and cooling operations.
- Automatically switches between heating and cooling modes.

* Not available for some models

Cooling set temp. 28 ℃, Heating set temp. 18 ℃

Auto Changeover

At start of operation

Change over
Cooling setpoint
Heating setpoint
Change over

Room temperature

Refrigerant leak detector

Refrigerant leakage status is indicated by the management equipment. A pop-up message is displayed to notify the user, and the refrigerant is shut off.

Pop-up highlighting

FUNCTIONS SUMMARY

	UTY-DTGYZ1	Monitoring side
Air conditioning control functions		
ON/OFF	●	●
Operation mode setting*	●	●
Fan speed control	●	●
Room temperature setting	●	●
Setting temperature range limitation	●	●
Test operation	●	●
Vertical louver setting	●	●
Horizontal louver setting	●	●
Individual louver control	●*[1]	●
Group setting	●	●
Remote controller prohibition	●	●
Anti-freeze setting	●	●
Set temperature auto return	—	●
Energy-saving controls	—	●
Economy mode setting	●	●
Human sensor control	—	●
Displayed items		
Error	●	●
Defrosting	●	●
Current time	●	●
Day of week	●	●
Remote controller prohibition	●	●
Cooling/heating priority	●	●
Address display	●	●
Room temperature	●*[3]	●*[3]
Multiple language support	●	●
Setting for daylight saving time	●	●
Time zone setting	●	●
Name registration	●	●
Backlighting	●	●
Language setting	7	7+other
Filter sign reset	●	●
Memory operations	●	●
Refrigerant leak detector	●	●

		UTY-DTGYZ1	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		●	●
Minimum unit of timer setting (minutes)		10	10
Control			
Remote monitoring management system		●	●
Electricity charge apportionment		○	○
Error history		●	●
Emergency stop		●*[2]	●*[2]
Remote monitoring management		—	●
Energy-saving management		—	—
E-mail notification in case of failure		—	●
Key lock		● Password setting	—
Low noise mode		●	●

●: Supported   ○: Optional function   —: Not supported
*1 Only setting cancellation can be operated.
*2 Only available for external input control.
*3 Available only when using a Wired remote controller.

Specifications

Model name	UTY-DTGYZ1
Power supply	Single phase ~100 to 240 V 50/60 Hz
Dimensions (H × W × D) (mm)	260 × 246 × 54
Weight (g)	2,150
Interfaces	Transmission/LAN/USB/EXT IN/EXT OUT/Reset SW

System controller

UTY-APGXZ1 Software

Up to
4 VRF network systems
Up to
400 outdoor units
Up to
1,600 indoor units

System controller enables advanced integrated monitoring and control of VRF network systems operating in small to large buildings.

• Up to 1,600 indoor units and 400 outdoor units on up to 4 VRF network systems can be controlled.
• To accommodate facility management needs, the system controller offers—in addition to precise air conditioning control—remote central control, electricity charge apportionment, schedule management, and energy-saving options for VRF network systems.
• Supports 7 languages: Chinese, English, French, German, Polish, Russian, and Spanish.

System controller lite

UTY-ALGXZ1 Software

Up to
1 VRF network systems
Up to
100 outdoor units
Up to
400 indoor units

System controller Lite offers a set of standard functions to manage air conditioners operating in a small or midsize building.
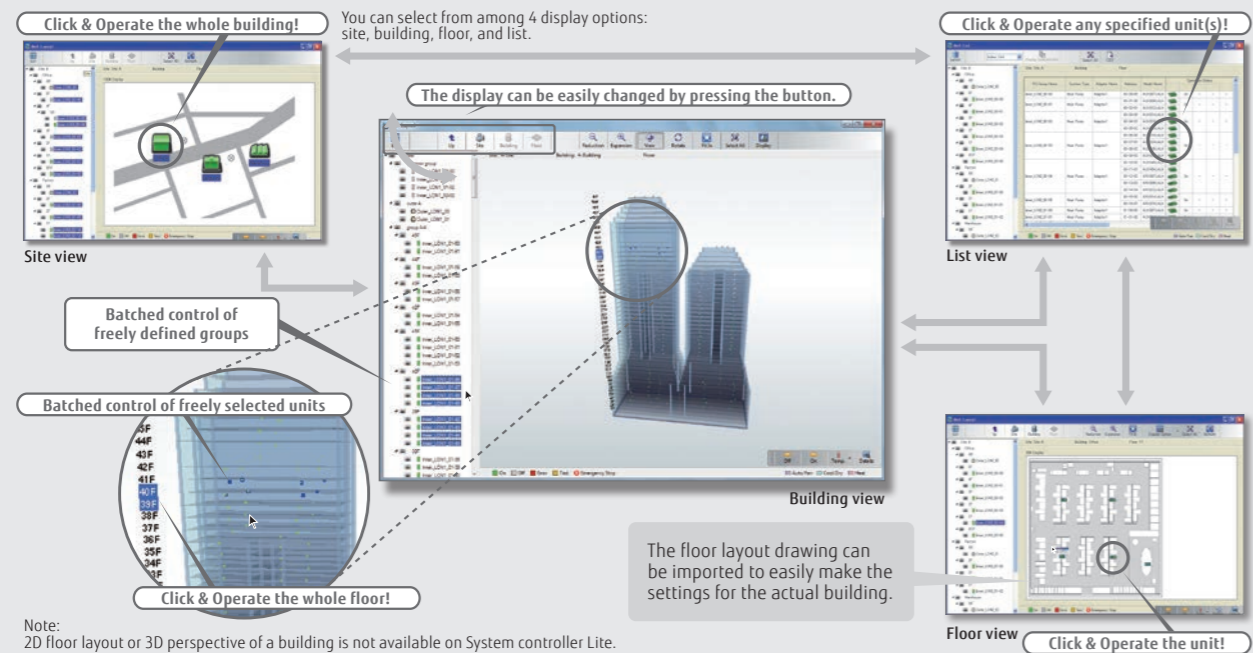
• Up to 400 indoor units and 100 outdoor units on a VRF network system can be controlled.
• In addition to precise air conditioning control, a variety of applications are available as options to offer a wider range of control.
• Supports 7 languages: Chinese, English, French, German, Polish, Russian, and Spanish.

Visually intuitive operation

Click & Operate: The visual representation of the property is shown on the screen from the perspective most suitable for operation (Click & Operate) You can select from among 4 display options: site, building, floor, and list.

Freely define groups for batched control: Indoor units can be grouped for simplified batch control from the tree menu. They can be grouped by organizational hierarchy, such as by division, department, and section.
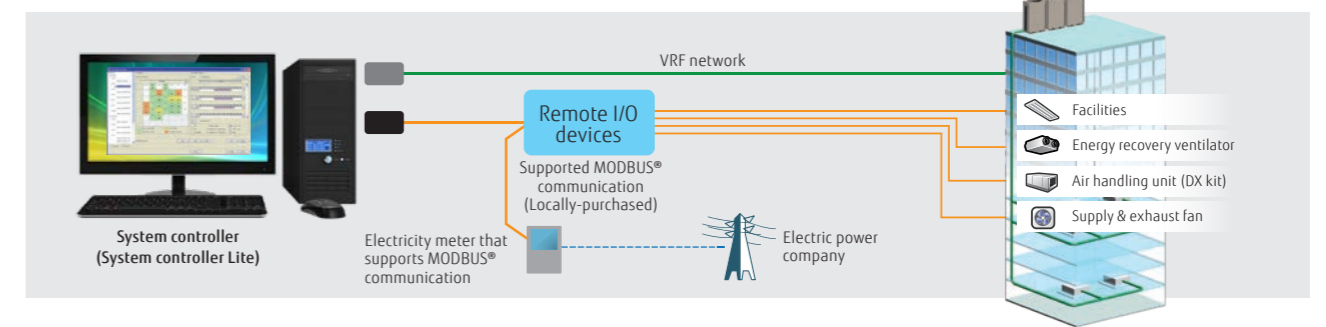
Click & Operate the whole building!

You can select from among 4 display options: site, building, floor, and list.

The display can be easily changed by pressing the button.

Click & Operate any specified unit(s)!

Site view

List view

Batched control of freely defined groups

Batched control of freely selected units

Building view

Click & Operate the whole floor!

The floor layout drawing can be imported to easily make the settings for the actual building.

Floor view   Click & Operate the unit!

Note:
2D floor layout or 3D perspective of a building is not available on System controller Lite.

Features:

Third-party devices connected via MODBUS® can be controlled.

Standard for System Controller   Option for System controller Lite UTY-PLGXX2

When a MODBUS® adapter (locally available) is connected to a computer, electrical equipment and devices supported by MODBUS® can be monitored and controlled centrally from the computer. The central control can reduce wasted energy throughout an entire building resulting from a failure to turn equipment off during or after work, as well as reduce the need for on-site patrols.

VRF network

Remote I/O devices

Facilities

Energy recovery ventilator

Air handling unit (DX kit)

Supply & exhaust fan

Supported MODBUS® communication (Locally-purchased)

System controller (System controller Lite)

Electricity meter that supports MODBUS® communication

Electric power company

Wide-ranging operation and data management

Standard System controller and System controller Lite

Schedule management

• An annual schedule can be arranged for each remote controller group or user-defined group.
• ON/OFF, operation mode, remote controller prohibition, and temperature settings can be programmed for up to 143 times per day at 10-minute intervals and for up to 101 configurations for each remote controller group.
• Settings can be programmed for a period that spans midnight.
• Allows for the programming of special settings for weekends, holidays, and store closings throughout the year.
• Low noise operation of outdoor units can be scheduled.
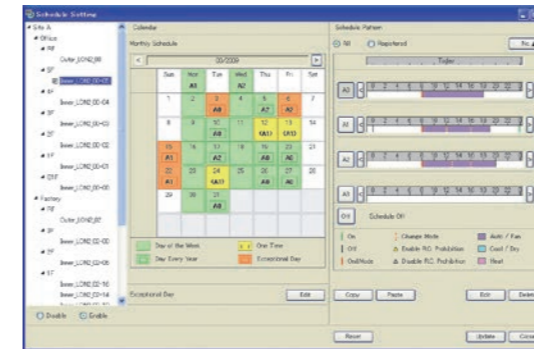
Wide-ranging control of indoor and outdoor units

• The operation status and mode of each indoor unit are displayed.
• Turn on and off each indoor unit and switch its operation mode.
• Setting temperature range limitation
• Low noise setting of outdoor units

Remote controller prohibition

Prohibits the operation mode, temperature setting, or ON/OFF of an indoor unit.

Error alert and e-mail notice

When something goes wrong, an error message is shown in a popup on a computer display with a chime, and an e-mail notice is sent. Errors of the past one year are logged and can be reviewed.

Operation and control history

A history of operation status and control can be maintained and retrieved.

Importing and exporting databases

Only an administrator is authorized to import and export registration, layout, and image data.
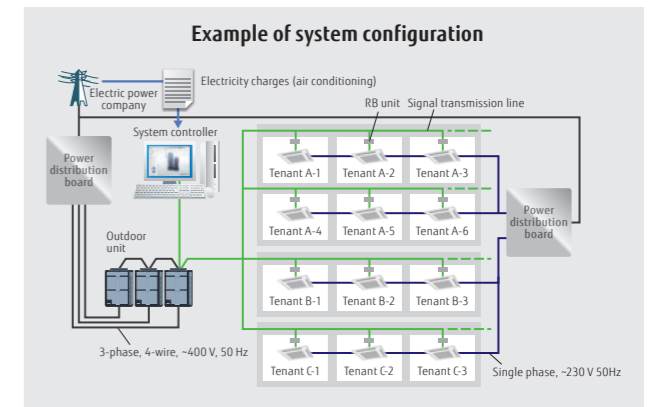
Automatic clock adjustment

Time can be set for all controllers in batch automatically.

Electricity charge apportionment

Standard on System controller
Option System controller Lite UTY-PLGXA2

Electricity charge apportionment method

This is a method to calculate monthly energy costs to be allocated to each tenant based on the amount of energy used by their air conditioners. The first step is to determine exactly how much energy is consumed by air conditioners in each tenant space. The second step is to divide the total energy charge billed by an electric power company based on the amount of energy used by each tenant to determine the energy cost to be allocated to each of them. (See figure on right)
The calculation takes into consideration such factors as the number of unused rooms and nighttime electricity rate, which are shown in detail on an energy cost allocation schedule.

Example of system configuration

Electric power company

Electricity charges (air conditioning)

System controller

RB unit Signal transmission line

Power distribution board

Tenant A-1 | Tenant A-2 | Tenant A-3

Tenant A-4 | Tenant A-5 | Tenant A-6

Power distribution board

Outdoor unit

Tenant B-1 | Tenant B-2 | Tenant B-3

3-phase, 4-wire, ~400 V, 50 Hz

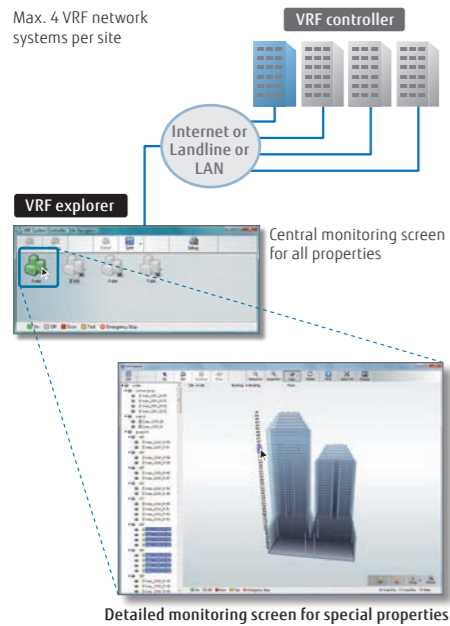Tenant C-1 | Tenant C-2 | Tenant C-3

Single phase, ~230 V 50Hz

Features:

Remote monitoring management

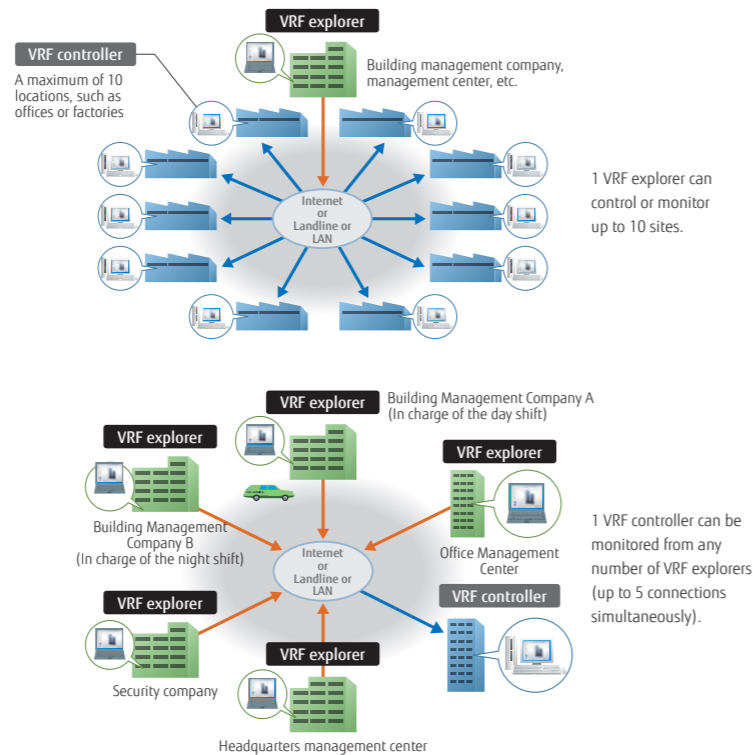**Standard** on System controller
Option System controller Lite UTY-PLGXR2

The System controller can be used on site or remotely over networks for remote central control.
The System controller requires 2 software programs working together: The VRF controller runs on site and communicates with the VRF system;
The VRF explorer, which runs at a remote location, provides a user interface and communicates with the VRF controller.
The VRF controller and the VRF explorer run on a single computer or on different computers connected on a network.
A computer running VRF explorer can centrally control up to 10 VRF system sites having up to 20 buildings each.

On site central control

Max. 4 VRF network systems per site

VRF controller

Internet or Landline or LAN

VRF explorer

Central monitoring screen for all properties

Detailed monitoring screen for special properties

Remote central control

VRF explorer

VRF controller

A maximum of 10 locations, such as offices or factories

Building management company, management center, etc.

Internet or Landline or LAN

1 VRF explorer can control or monitor up to 10 sites.

VRF explorer — Building Management Company A (In charge of the day shift)

VRF explorer
VRF explorer
Building Management Company B (In charge of the night shift)
VRF explorer
Office Management Center
VRF controller
Security company

Internet or Landline or LAN

1 VRF controller can be monitored from any number of VRF explorers (up to 5 connections simultaneously).

Headquarters management center

Energy-saving management

Option System controller UTY-PEGXZ1
Option System controller Lite UTY-PLGXE2

A variety of energy-saving options can be selected depending on the season, weather, and time of day. Excellent energy-saving operation is performed while keeping users comfortable.
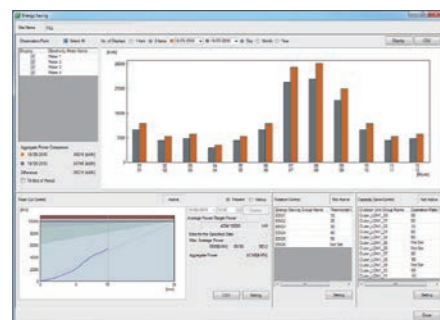
Main screen for energy-saving management

Energy saving graph data: This chart compares the energy consumption for the current month with the previous month and with the same month of the previous year to keep track of the energy-saving performance.

Indoor unit rotation

Indoor units can be automatically rotated to operate within a group in accordance with a predetermined annual schedule to reduce power consumption while keeping users comfortable. The operation stoppage rate can be selected for an indoor unit.

Peak-cut mode

The system controller monitors the connected power meter and controls the energy to maintain the target power consumption set for each time period by changing the set temperature of the indoor units or turning off the thermostat so as to keep the users comfortable. Indoor units to be controlled can be grouped in many ways, and the control level can be set for each group.

Capacity saving for outdoor unit

The upper limit on the capacity of an outdoor unit can be adjusted to reduce power consumption during a hot summer or cold winter by averaging out the power-saving performance of each refrigerant system. The upper limit on capacity can be set at 50% of the rated capacity or more.

Summary of functions

Functions	Type	System controller UTY-APGXZ1	Option UTY-PEGXZ1	System controller Lite UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
Specifications	Max. number of VRF networks supported	4	–	1	–	–	–	–
	Max. number of indoor unit and remote controller groups per VRF network	400	–	400	–	–	–	–
	Max. number of outdoor units per VRF network	100	–	100	–	–	–	–
	Max. number of indoor units and remote controller groups per System controller	1600	–	400	–	–	–	–
	Max. number of outdoor units per System controller	400	–	100	–	–	–	–
Site supervision	Multiple site display	10	–	10	–	–	–	–
	Number of buildings per site	20	–	–	–	–	–	–
	Number of floors per site	200	–	–	–	–	–	–
	Number of floors per building	50	–	–	–	–	–	–
	3D graphical layout view	●	–	–	–	–	–	–
	2D graphical layout view	●	–	–	–	–	–	–
	List display	●	–	●	–	–	–	–
	Tree display	●	–	–	–	–	–	–
	Group display	●	–	–	–	–	–	–
Error management	Error notification	●	–	–	–	–	–	–
	Audible alarm	●	–	–	–	–	–	–
	E-mail notification of errors	●	–	–	–	–	–	–
History	Error history	●	–	●	–	–	–	–
	Operation history	●	–	–	–	–	–	–
	Control history	●	–	●	–	–	–	–
Operation control	Individual control — ON/OFF	●	–	●	–	–	–	–
	Operation mode*	●	–	●	–	–	–	–
	Room temperature	●	–	●	–	–	–	–
	Fan speed	●	–	●	–	–	–	–
	Airflow direction	●	–	●	–	–	–	–
	Economy mode	●	–	●	–	–	–	–
	Setting temperature range limitation	●	–	●	–	–	–	–
	Anti-freeze	●	–	●	–	–	–	–
	Low noise setting of outdoor units	●	–	●	–	–	–	–
	Individual management — Remote controller prohibition	●	–	●	–	–	–	–
	Setting temperature range limitation	●	–	●	–	–	–	–
	Filter sign reset	●	–	●	–	–	–	–
	Other — memory operations	●	–	●	–	–	–	–
	Pattern operations	●	–	–	–	–	–	–
Schedule	Annual Schedule	●	–	●	–	–	–	–
	Setting for a specific date	●	–	●	–	–	–	–
	ON/OFF per day	72	–	72	–	–	–	–
	ON/OFF per week	504	–	504	–	–	–	–
	Day off	●	–	●	–	–	–	–
	Minimum unit of timer setting (minutes)	10	–	10	–	–	–	–
	Weekly schedule for low noise mode	●	–	–	–	–	–	–
Remote monitoring management	Web Operation	●	–	●	–	–	–	–
	Remote monitoring	●	–	–	●	–	–	–
	Remote operation control	●	–	–	●	–	–	–
	Remote function setting	●	–	–	●	–	–	–
Electricity charge apportionment	Apportionment charge/bill calculation	●	–	–	–	●	–	–
	Tenant (block) setting	●	–	–	–	●	–	–
	Common facilities apportionment setting	●	–	–	–	●	–	–
	Rated power consumption allotment	–	●	–	–	●	–	–
	Individual calculations for cooling and heating	–	●	–	–	●	–	–
	Electricity meter supported	–	●	–	–	●	–	–
Energy-saving management	Indoor unit rotation	–	●	–	–	–	●	–
	Peak cut control	–	●	–	–	–	●	–
	Capacity saving for outdoor unit	–	●	–	–	–	●	–
	Record of energy-saving operation	–	●	–	–	–	●	–
	Information on energy saving	–	●	–	–	–	●	–
	Power consumption monitor	–	●	–	–	–	●	–
	Electricity meter supported	–	●	–	–	–	–	–
Control of external devices	Monitor	●	–	–	–	–	–	●
	Control	●	–	–	–	–	–	●
Others	Importing and exporting databases	●	–	●	–	–	–	–
	Automatic clock adjustment	●	–	●	–	–	–	–
	Multiple language support	7 languages	–	7 languages	–	–	–	–
	Refrigerant leak detector	●	–	–	–	–	–	–
	Power shutdown	●	–	●	–	–	–	–

●: Available -: Not available

Computer requirements

The specifications required for the computer are shown in the table below:

	System controller	System controller Lite
Operating system	• Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) Supports 7 languages: English, Chinese, French, German, Russian, Spanish, and Polish	
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	
Displayed items	1024 × 768 or higher resolution	
Interfaces	•Ethernet port (for getting access to the internet using LAN) or a modem (for getting access to the internet via landline) •Up to 6 USB ports (Only required for a server computer working as a VRF controller) - Maximum of 2 USB ports are required to connect to a White-USB-key/WibuKey - Up to 4 USB ports required to connect to an Echelon® U10 USB network interface * Maximum number of required USB ports depends on the applicable system configuration.	•Ethernet port (for getting access to the internet using LAN) or a modem (for getting access to the internet via landline) •Up to 6 USB ports (Only required for a server computer working as a VRF controller) - Maximum of 4 USB ports are required to connect to a White-USB-key/WibuKey - 1 USB port is required for an Echelon® U10 USB Network interface * The maximum number of required USB ports depends on the applicable system configuration.
Graphic accelerator	Microsoft® DirectX® 9.0c compatible	
Software	Adobe® Acrobat Reader® 9.0 or later	

• Echelon® U10 USB Network interface – TP/FT-10 Channel (Model name: 75010R) (Required for each VRF Network)

Packing list

Type	For System controller		For System controller Lite				
	System controller	Option Energy manager	System controller Lite	Remote access	Option Electricity charge apportionment	Energy saving	Centralized control
Model name	UTY-APGXZ1	UTY-PEGXZ1	UTY-ALGXZ1	UTY-PLGXR2	UTY-PLGXA2	UTY-PLGXE2	UTY-PLGXX2
White-USB-key	1	1	1	1	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 a WHITE-USB-KEY. However, a WHITE-USB-KEY is not required for remote VRF explorer software.

CONTROL SYSTEM & OPTIONAL PARTS

MODBUS® converter for indoor unit
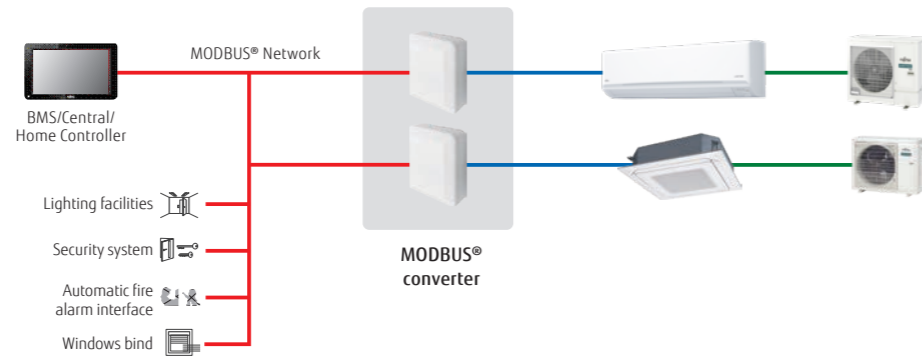UTY-VMSX

MODBUS® converter enables air conditioners to be fully integrated into a MODBUS® network.

• Simple installation due to small and compact size.
• No separate external power supply required.
• The MODBUS® converter must be connected to an indoor unit on a one-to-one basis.
• The MODBUS® converter enables central monitoring and control of air conditioners from BMS, central, or home controller.

Up to
1 indoor unit

BMS/Central/Home Controller

MODBUS® Network

Lighting facilities

Security system

Automatic fire alarm interface

Windows bind

MODBUS® converter

Easy Installation

Easy to install with minimal wiring and without the need for a power supply cable to the converter
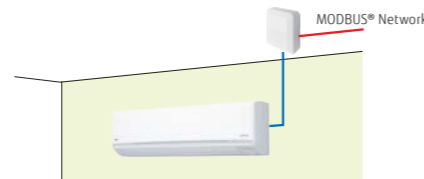
MODBUS® Network

Basic control

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

• Room temperature setting and display
• Economy mode setting
• Error status

Specifications

Model name	UTY-VMSX
Power supply	12 V DC
Input power (W)	Max. 1.2 W
Dimensions (H × W × D) (mm)	140 × 117 × 43
Weight (g)	200
Maximum number of connectable indoor units per MODBUS® converter	1

Modbus communication specifications

Transfer mode	RTU mode
Communication speed	9600/19200 bps
Data bit	8
Parity	even/odd/none
Stop bit	1/2 (no parity)
Network	RS485
Maximum cable length	1000 m (3280 ft)

MODBUS® interface
FG-RC-MBS1Z1 / FG-AC-MBS1Z1 / FG-IR-BMG1Z1

Intesis®
BY HMS NETWORKS

FG-RC-MBS1Z1
(3-wire RC-line type)

Intesis®
BY HMS NETWORKS

FG-AC-MBS1Z1
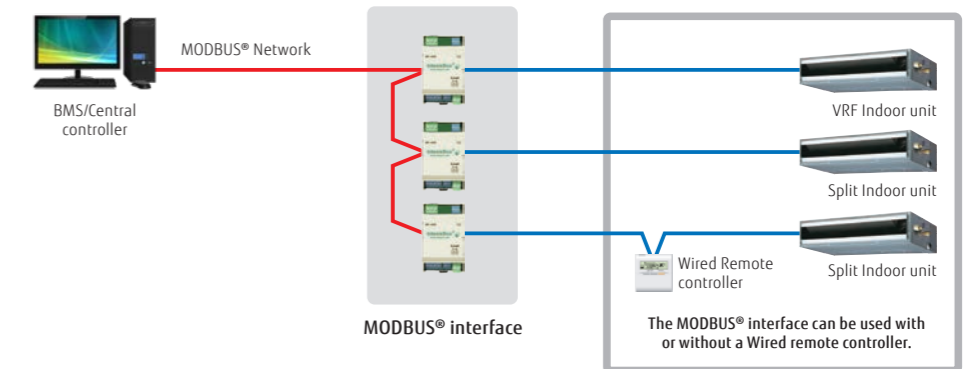(CN connector type)

Intesis®
BY HMS NETWORKS

FG-IR-BMG1Z1
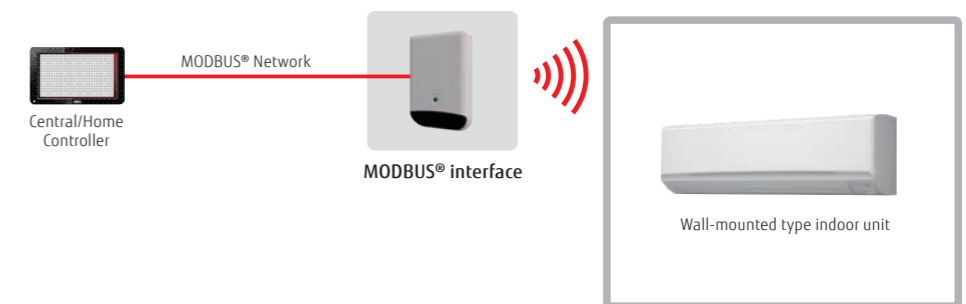(IR type)

Up to
1 indoor unit

MODBUS® interface enables air conditioners to be fully integrated into a MODBUS® network.

• Small, compact, and easy to install on DIN rails.
• No separate external power supply required.
• MODBUS® interface enables central monitoring and control of air conditioners from BMS.

Installation example

BMS/Central controller

MODBUS® Network

VRF Indoor unit

Split Indoor unit

Wired Remote controller

Split Indoor unit

MODBUS® interface

The MODBUS® interface can be used with or without a Wired remote controller.

[IR type] Connection to wall-mounted type

Central/Home Controller
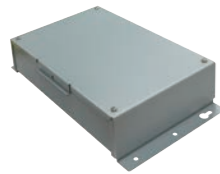
MODBUS® Network

MODBUS® interface

Wall-mounted type indoor unit

Specifications

Model name	FG-RC-MBS1Z1 (3-wire RC-line type)	FG-AC-MBS1Z1 (CN connector type)	FG-IR-BMG1Z1 (IR type)
Number of controllable groups	1	1	1
Dimensions (H × W × D) (mm)	93 × 53 × 58	93 × 53 × 58	93 × 60 × 21
Weight (g)	85	85	55

MODBUS® convertor for VRF
UTY-VMGX / FG-TL-MBS16Z1

MODBUS® converter enables air conditioners to be fully integrated into a MODBUS® network.
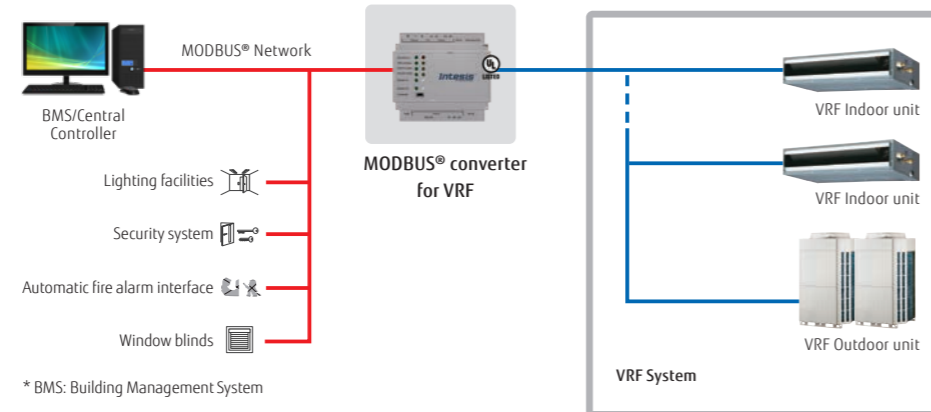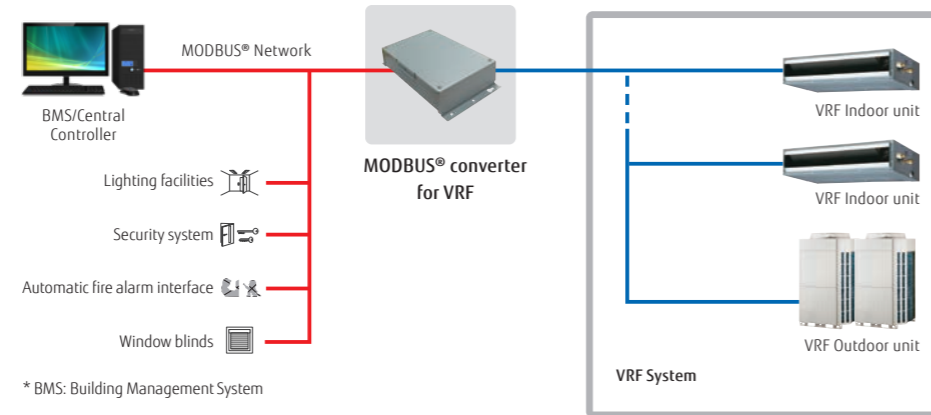
- Compact and lightweight design
- Direct connection to MODBUS® network
- MODBUS® convertor enables central monitoring and control of air conditioners from BMS or a central controller.
- Up to 9 converters can be connected to a VRF network (UTY-VMGX). Simultaneous control, such as Power ON/OFF and temperature setting, can be performed for each zone.
- If a connection error occurs after installation work is completed, the source of the error can be located easily.

UTY-VMGX

Up to
9 units per VRF system
Up to
100 outdoor units
Up to
128 indoor units

Intesis® BY HMS NETWORKS

FG-TL-MBS16Z1

Up to
16 indoor units
Up to
16 outdoor units
Up to
128 indoor units

Installation example

MODBUS® Network

BMS/Central Controller

Lighting facilities

Security system

Automatic fire alarm interface

Window blinds

MODBUS® converter for VRF

VRF Indoor unit

VRF Indoor unit

VRF Outdoor unit

VRF System

* BMS: Building Management System

MODBUS® Network

BMS/Central Controller

Lighting facilities

Security system

Automatic fire alarm interface

Window blinds

MODBUS® converter for VRF

VRF Indoor unit

VRF Indoor unit

VRF Outdoor unit

VRF System

* BMS: Building Management System

BACnet® interface
FG-AC-BAC1Z1 / FG-IR-BMG1Z1

Intesis® BY HMS NETWORKS

FG-AC-BAC1Z1 (CN connector type)
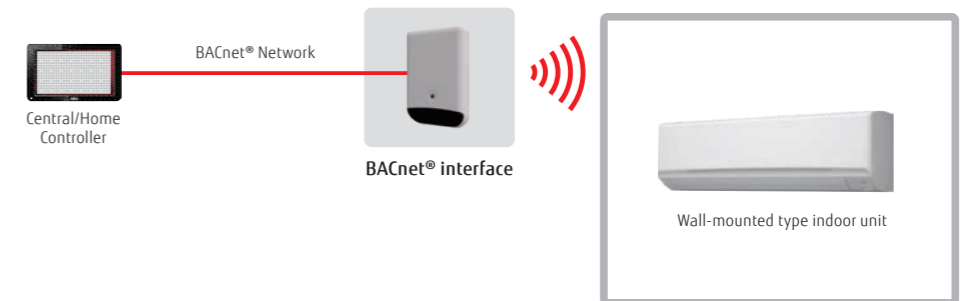
Intesis® BY HMS NETWORKS

FG-IR-BMG1Z1 (IR type)

Up to
1 indoor units

- BACnet® interface connects BMS and a Fujitsu General split/multi-split/VRF system.
- Compatible with BACnet® (ANSI/ASHRAE-135-2012) application-specific controller (B-ASC)
- Compatible with BACnet®/IP over Ethernet.

Installation example

BACnet® Network

BMS/Central controller

VRF Indoor unit

Split Indoor unit

Split Indoor unit

BACnet® interface

The BaCnet® interface can be used with or without a Wired remote controller.

[IR type] Connection to wall-mounted type

BACnet® Network

Central/Home Controller

BACnet® interface

Wall-mounted type indoor unit

Specifications

Model name	UTY-VMGX	FG-TL-MBS16Z1
Power supply	Single phase ~220 to 240 V 50/60 Hz	9 to 36 V DC, Max.: 140 mA or 24 V AC 50/60 Hz, Max.: 127 mA.*
Input power (W)	Max. 2	1.7
Dimensions (H × W × D) (mm)	54 × 260 × 150	90 × 88 × 56
Weight (g)	1,100	330

*24 V DC power supply is recommended.
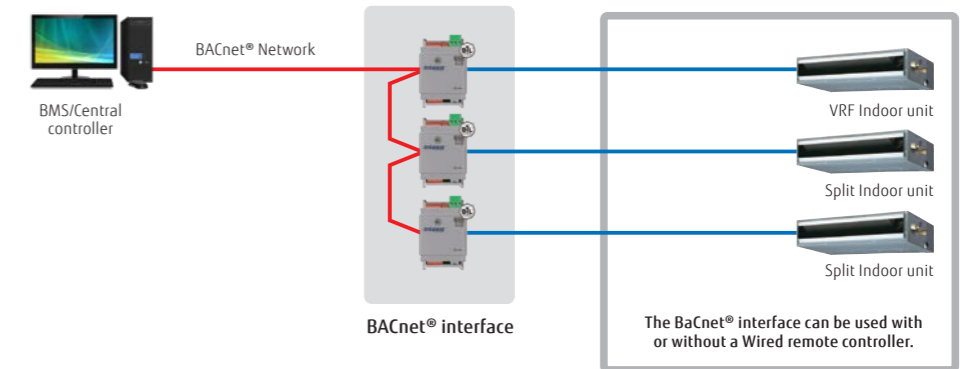
Specifications

Model name	FG-AC-BAC1Z1 (CN connector type)	FG-IR-BMG1Z1 (IR type)
Number of controllable groups	1	1
Dimensions (H × W × D) (mm)	93 × 53 × 58	93 × 60 × 21
Weight (g)	85	55

12 V DC supplied by an indoor unit

CONTROL SYSTEM & OPTIONAL PARTS

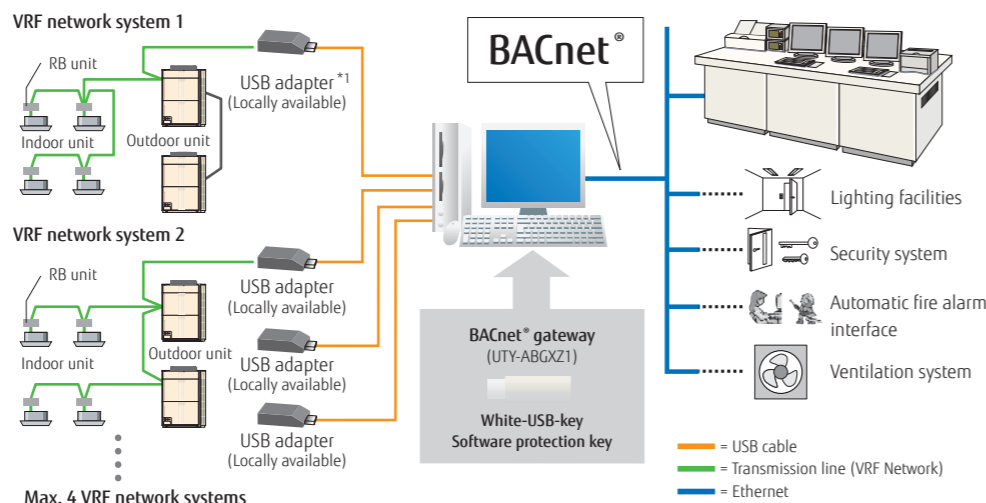# BACnet® gateway
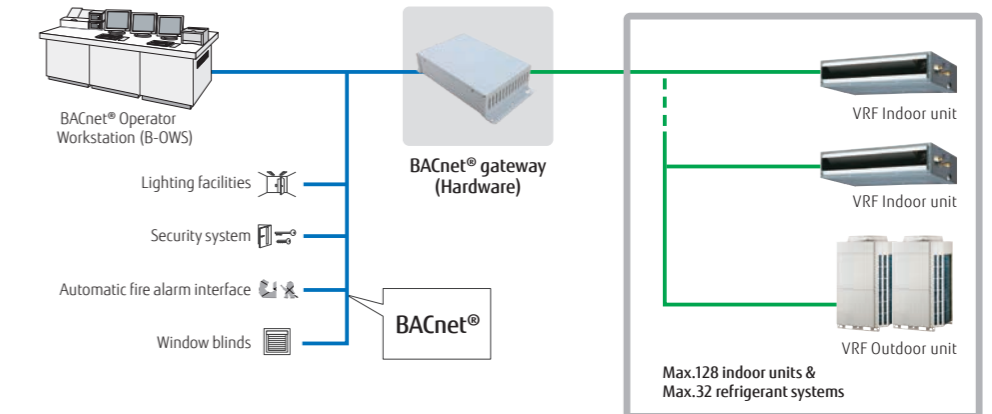**UTY-ABGXZ1** [Software]

**White-USB-key
(Software Protection Key)**

BTL

BACnet® is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BACnet International.

Up to
4 VRF network systems
Up to
400 outdoor units
Up to
1,600 indoor units

- A medium to large BMS can be connected to a VRF network system via BACnet®, a standard communication protocol for open networks.
- Up to 1,600 indoor units on up to 4 VRF network systems (up to 400 indoor units and 100 outdoor units per system) can be connected to a single BACnet® gateway.
- The VRF network system can be controlled or monitored from BMS via BACnet® gateway.
- Compatible with BACnet® (ANSI/ASHRAE-135-2014) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.
- Scheduling, alarm and event setting, and energy cost allocation are provided on the BACnet® gateway.
- The VRF network system can be connected to a computer via a U10 USB interface. Note that Fujitsu General does not supply a U10 USB interface or a computer. They must be purchased separately by the user.
- Corresponds to 7 different languages: English, Chinese, French, German, Spanish, Russian, Polish.

Installation example

VRF network system 1
RB unit
Indoor unit   Outdoor unit
USB adapter *1 (Locally available)

VRF network system 2
RB unit
Indoor unit   Outdoor unit
USB adapter (Locally available)
USB adapter (Locally available)
USB adapter (Locally available)

Max. 4 VRF network systems

BACnet®

BACnet® gateway
(UTY-ABGXZ1)

White-USB-key
Software protection key

BACnet® Operator Workstation   (B-OWS)

.... Lighting facilities
.... Security system
.... Automatic fire alarm interface
.... Ventilation system

— = USB cable
— = Transmission line (VRF Network)
— = Ethernet

*1: U10 USB network interface available from Echelon® Corporation.

Computer requirements

	UTY-ABGXZ1
Operating system	• Microsoft® Windows® 7 Home Premium (32-bit or 64-bit) SP1, Windows® 7 Professional (32-bit or 64-bit) SP1 • Microsoft® Windows® 8.1 (32-bit or 64-bit), Windows® 8.1 Pro (32-bit or 64-bit) • Microsoft® Windows® 10 Home (32-bit or 64-bit), Windows® 10 Pro (32-bit or 64-bit) Supported languages: Chinese, English, French, German, Polish, Russian, and Spanish
CPU	Intel® Core™ 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
Displayed items	1024 × 768 or higher resolution

Interfaces	• Ethernet port (for getting access to the internet using LAN)
	• Up to 5 USB ports
	  - 1 USB port required to connect to a White-USB-key/WibuKey
	  - Up to 4 USB ports required to connect to an Echelon® U10 USB network interface
	  *The maximum number of required USB ports varies depending on the applicable system configuration.

Software	Adobe® Acrobat Reader® 9.0 or later

•Echelon® U10 USB Network interface – TP/FT-10 Channel (Model name: 75010R) (Required for each VRF Network)

Packing list

Name and shape	Quantity	Application
White-USB-key	1	Includes the software, user's manual, and license for BACnet® gateway.

BACnet® gateway
UTY-VBGX [Hardware]

BTL

BACnet® is a registered trademark of ASHRAE. ASHRAE does not endorse, approve or test products for compliance with ASHRAE standards. Compliance of listed products to the requirements of ASHRAE Standard 135 is the responsibility of BACnet International (BI). BTL is a registered trademark of BACnet International.

Up to
1 VRF network systems
Up to
32 refrigerant systems
Up to
128 indoor units

- BACnet® gateway connects BMS and a Fujitsu General VRF system.
- Up to 128 indoor units and 32 refrigerant systems can be connected to a single BACnet® gateway.
- Compatible with BACnet® (ANSI/ASHRAE-135-2012) application-specific controller (B-ASC)
- Compatible with BACnet®/IP over Ethernet.

Installation example

BACnet® Operator
Workstation (B-OWS)

Lighting facilities
Security system
Automatic fire alarm interface
Window blinds

BACnet®

BACnet® gateway
(Hardware)

VRF Indoor unit
VRF Indoor unit
VRF Outdoor unit

Max.128 indoor units &
Max.32 refrigerant systems

Specifications

Model name	UTY-VBGX
Number of controllable indoor units	128
Number of controllable refrigerant systems	32
Number of controllable VRF networks	1
Number of connectable units / one VRF network	4
Power supply	Single phase, 100-240 V, 50/60 Hz
Power consumption (W)	4.6 (max.)
Dimensions (H × W × D) (mm)	59.6 × 270.4 × 176
Weight (g)	1200

BACnet®/MODBUS® router

FG-RTR-BAC32Z1 / FG-RTR-MBS32Z1

Intesis®
BY HMS NETWORKS

FG-RTR-BAC32Z1
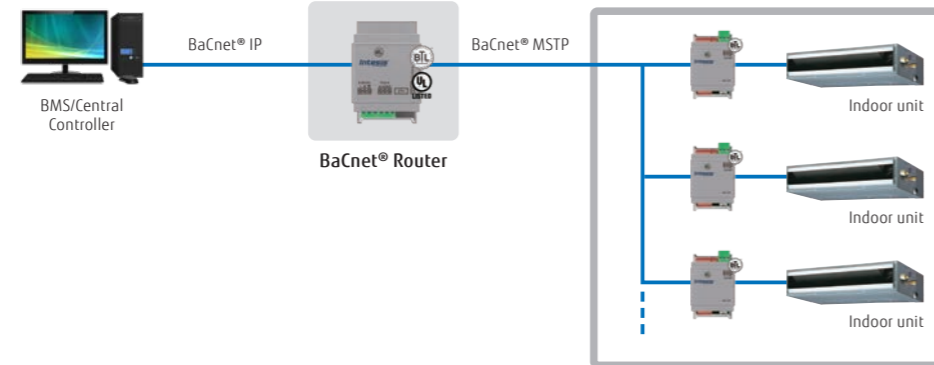(BAC net)

Intesis®
BY HMS NETWORKS

FG-RTR-MBS32Z1
(MODBUS®)

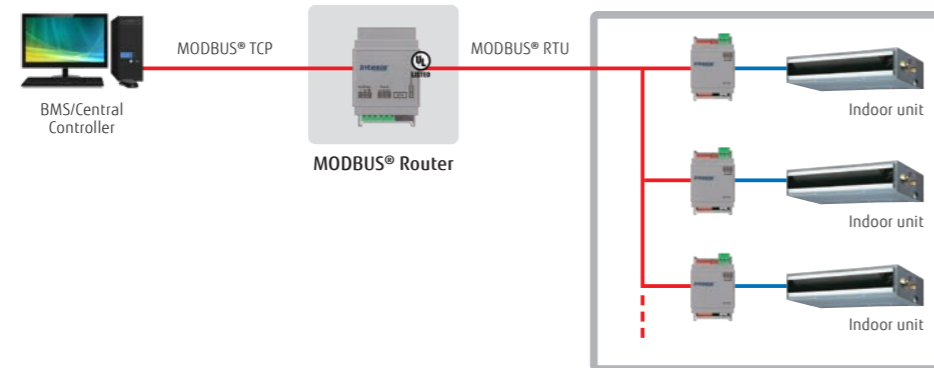## Routing between BaCnet® MS/TP and BaCnet® IP networks

• Routing between BaCnet® MS/TP and BaCnet® IP networks
• Routing between MODBUS® RTU and MODBUS® TCP networks

Installation example

[BaCnet® type]

BMS/Central Controller — BaCnet® IP — **BaCnet® Router** — BaCnet® MSTP — Indoor unit / Indoor unit / Indoor unit

[MODBUS® type]

BMS/Central Controller — MODBUS® TCP — **MODBUS® Router** — MODBUS® RTU — Indoor unit / Indoor unit / Indoor unit

Specifications

Model name	FG-RTR-BAC32Z1 (MS/TP to IP)	FG-RTR-MBS32Z1 (RTU to TCP)
Number of routable devices (max.)	32	32
Power supply	9 to 36 V DC, Max.: 140 mA or 24 V AC 50/60 Hz, Max.: 127 mA	9 to 36 V DC, Max.: 140 mA or 24 V AC 50/60 Hz, Max.: 127 mA
Power consumption (W)	1.7	1.7
Dimensions (H × W × D) (mm)	93 × 53 × 58	93 × 53 × 58
Weight (g)	150	150

BACnet®/MODBUS® cloud device

FG-CLD-BMG4Z1 / FG-CLD-BMG8Z1 / FG-CLD-BMG16Z1 / FG-CLD-BMG32Z1

Intesis®
BY HMS NETWORKS

FG-CLD-BMG4/8/16/32Z1

• The most powerful configuration tool common to all BACnet® gateways provides the system integrators with the power to configure and monitor their systems in an easy and reliable manner.
• A simple, easy-to-use description for the ST Cloud Web and App User Interface, with all widgets customizable to the user's needs, enabling system integrators to easily offer the best user experience to customers who are in control of their BaCnet® or MODBUS® devices.

Installation example

BMS/Central Controller — MODBUS® Network — Internet — Web and App UI

Lighting facilities
Security system
Automatic fire alarm interface
Window blinds
Intesis MAPS configuration tool
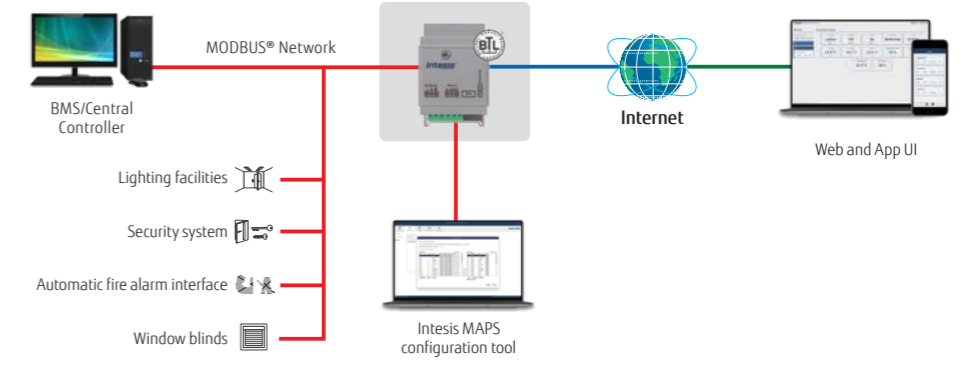
*BMS: Building Management System

Gateway features

• BaCnet® IP/MSTP or MODBUS® TCP/RTU connectivity
• Up to 32 devices can be connected to each gateway.
• Up to 12 widgets per device
• Easy device configuration with Intesis MAPS

Next-generation services

• Industrial-grade connectivity now for building automation
• Fast and scalable real-time edge connectivity over HMS HubTM
• Full data control and protection
• Secure and remote updates during the application lifetime

System Features

• Monitor and control all devices in an intuitive way
• Comes with a native iOS and Android app and a web interface
• Create scenes and interact with multiple concurrent devices
• Calendar that shows the daily planned installation commands
• Notifications keep you updated about system status
• Device sharing and usage permissions management
• Multiple site management from a common dashboard

Specifications

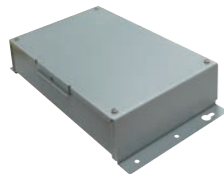| Model name	FG-CLD-BMG4Z1	FG-CLD-BMG8Z1	FG-CLD-BMG16Z1	FG-CLD-BMG32Z1
Number of connectable BaCnet® (IP/MSTP) or MODBUS® (TCP/RTU) devices	4	8	16	32
Power supply	9 to 24 V DC, 50/60Hz	9 to 24 V DC, 50/60Hz	9 to 24 V DC, 50/60Hz	9 to 24 V DC, 50/60Hz
Power consumption (W)	1.7	1.7	1.7	1.7
Dimensions (H × W × D) (mm)	93 ×53 × 58	93 ×53 × 58	93 ×53 × 58	93 ×53 × 58
Weight (g)	150	150	150	150

KNX® converter for indoor unit
UTY-VKSX

KNX® Converter enables individual control of an indoor unit.

- The new KNX® converter connects a central or home controller and a Fujitsu General indoor unit.
- Compact and lightweight design

Up to
1 indoor unit

Central/Home controller

KNX® converter for indoor unit

Single-split indoor unit
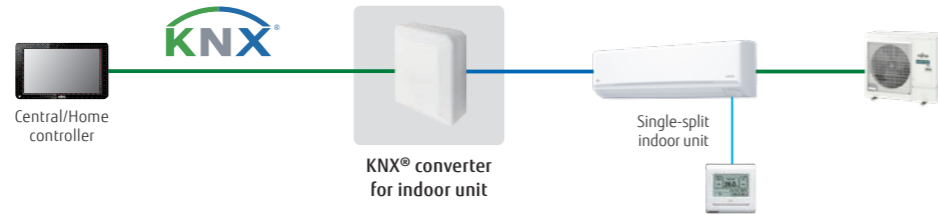
KNX® converter for VRF
UTY-VKGX / FG-TL-KNX16Z1

KNX® converter enables centralized control of a system.

- KNX® converter connects a central or home controller and a Fujitsu General VRF system.
- Up to 128 indoor units and 100 outdoor units can be connected to a single KNX® converter. (UTY-VKGX)

UTY-VKGX

Up to
100 outdoor units
Up to
128 indoor units

Intesis BY HMS NETWORKS

FG-TL-KNX16Z1

Up to
16 indoor units
Up to
16 outdoor units

Installation example

Central/Home Controller

KNX® converter for VRF

Central/Home Controller

KNX® converter for VRF

KNX® interface
FG-RC-KNX1Z1 / FG-AC-KNX1Z1 / FG-IR-KNX1Z1

Intesis BY HMS NETWORKS

FG-RC-KNX1Z1
(3-wire RC-line type)

Intesis BY HMS NETWORKS

FG-AC-KNX1Z1
(CN connector type)

Intesis BY HMS NETWORKS

FG-IR-KNX1Z1
(IR type)

Up to
1 indoor unit

The KNX® interface enables air conditioners to be fully integrated into a KNX® network system.

- Simple installation due to small and compact size.
- No separate external power supply required (only KNX® bus power required)

Installation example

[3-wire RC-line type/CN connector type]

Central/Home Controller

or

KNX® interface

or

VRF Indoor unit

Wired remote controller

Split Indoor unit

The KNX® interface can be used with or without a Wired remote controller.

[IR type] Connection to wall-mounted type

Central/Home Controller

KNX® interface

Wall-mounted type indoor unit
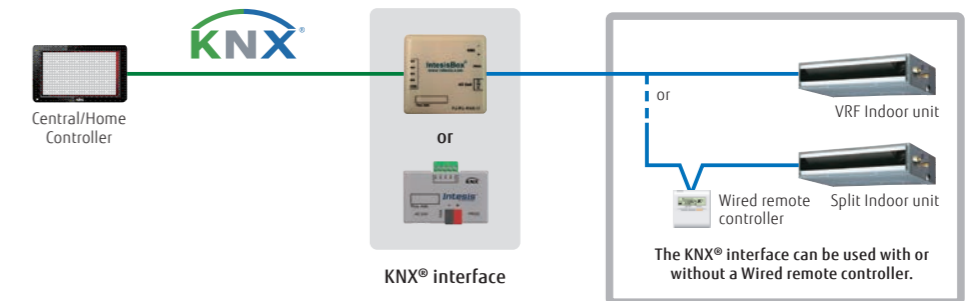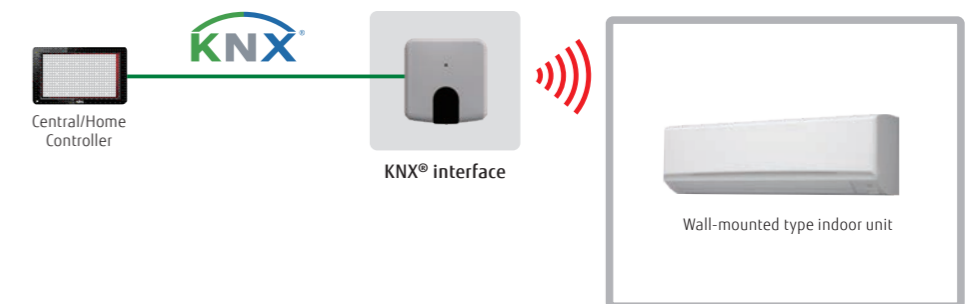
[IR type] Connection to a product other than wall-mounted type

Central/Home Controller

KNX® interface

Duct type indoor unit

Wireless remote controller

*IR receiver required.

Specifications

Model name	UTY-VKSX	UTY-VKGX	FG-TL-KNX16Z1
Power supply	12 V DC	Single phase ~220 to 240 V 50/60 Hz	9 to 36 V DC, Max.: 140 mA or 24 V AC 50/60 Hz, Max.: 127 mA.*
Input power (W)	0.6	1.5	1.6
Dimensions (H × W × D) (mm)	140 × 117 × 43	54 × 260 × 150	90 × 88 × 56
Weight (g)	215	1,200	340

*24 V DC power supply is recommended.
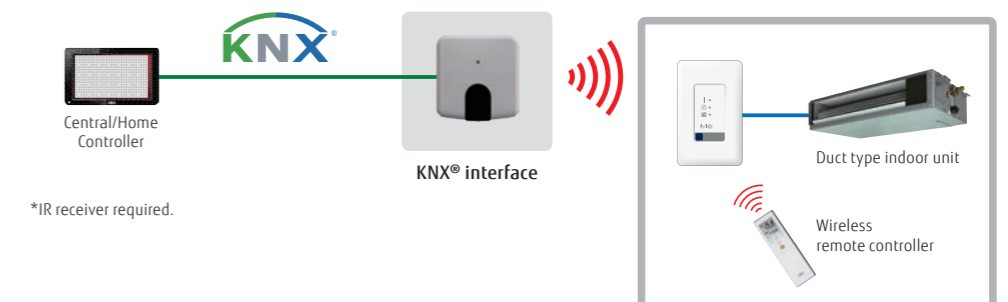
Specifications

Model name	FG-RC-KNX1Z1 (3-wire RC-line type)	FG-AC-KNX1Z1 (CN connector type)	FG-IR-KNX1Z1 (IR type)
Number of controllable groups	1	1	1
Dimensions (H × W × D) (mm)	70 × 70 × 28	45 × 59 × 21	81 × 78 × 28
Weight (g)	70	35	76

CONTROL SYSTEM & OPTIONAL PARTS

Network converter for single-split type
UTY-VTGX / UTY-VTGXV

UTY-VTGX
DC power supply type

UTY-VTGXV
AC power supply type

Up to
16 single indoor units
Up to
1 group
Up to
100 Network Converters

• A network converter is required when connecting a single-split system to a VRF network system.
• Compact and lightweight design
• Connectable to both nonpolar 2-core and polar 3-core remote controllers

Installation example

• A 1-remote-controller type and a 2-remote-controller type are available.
• Power supply (220 to 240 V AC, 50/60 Hz) is required for the 2-remote-controllers type.

VRF Network System

Network converter
(for 1 remote controller)

Network converter
(for 2 remote controller)

Single phase,
~230 V
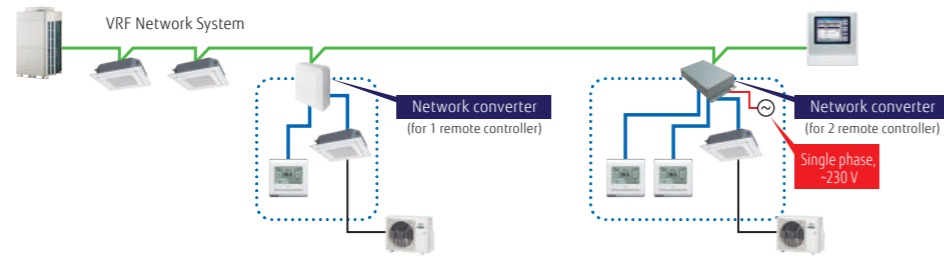
• Both nonpolar 2-core and polar 3-core type Wired remote controllers can be connected.
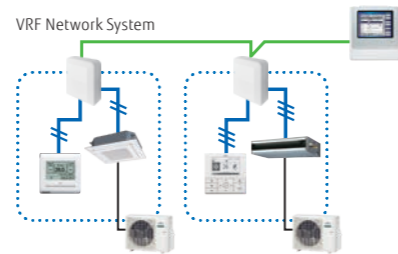
VRF Network System

• Central control can be provided for single-split systems. (Up to 100 network converters can be connected in a VRF network system)

VRF Network System

Up to 100 network converters

• • •
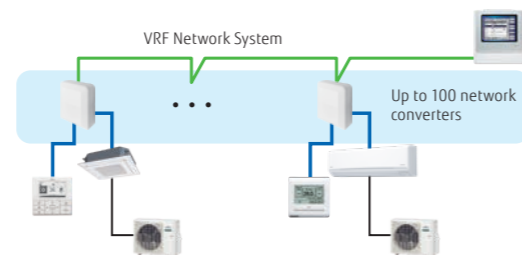
Specifications

Model name	UTY-VTGX		UTY-VTGXV
Power supply	Polar 3-core 12 V DC	Nonpolar 2-core DC 12 V	Single phase ~220 to 240 V 50/60 Hz
Input power (W)	Max. 1.2 W		Max. 3
Dimensions (H × W × D) (mm)	140 × 117 × 43		54 × 260 × 150
Weight (g)	250		1,100

Network converter for LONWORKS™
UTY-VLGX
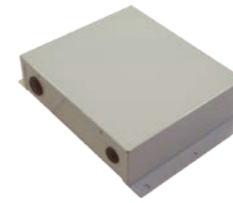
Up to
4 units to BMS
Up to
100 outdoor units
Up to
128 indoor units

• Connects the VRF network system to a LONWORKS™ open network to manage small and midsized BMS and VRF network system.
• The UTY-VLGX enables centralized monitoring and control of VRF network system from a BMS via a LONWORKS™ interface.
• Up to 128 Indoor units can be connected to one network converter for LONWORKS™

Installation example

General-purpose building control computer (LONWORKS™ device)

Lighting facilities
Security system
Automatic fire alarm interface
Window blinds

LONWORKS™
Network

Network converter for
LONWORKS™

Max.128 indoor units &
Max.100 outdoor units

VRF Indoor unit
VRF Indoor unit
VRF Outdoor unit
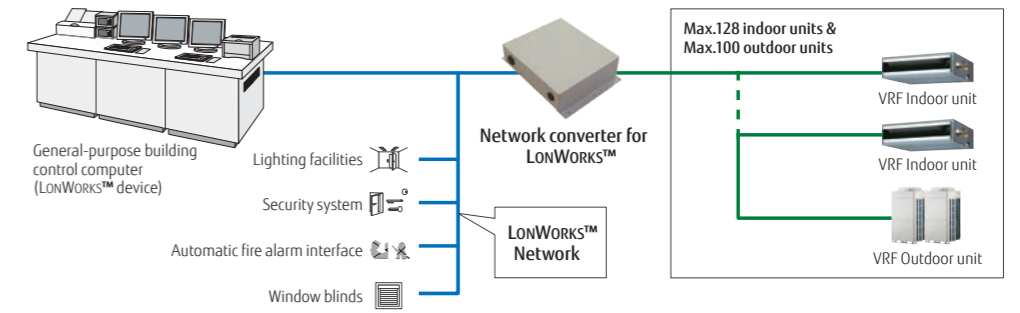
Specifications

Model name	UTY-VLGX
Power supply	Single phace ~208 to 240 V 50/60 Hz
Power consumption (W)	4.5
Dimensions (H × W × D) (mm)	67 × 288 × 211
Weight (g)	1,500

Transmission specifications (BMS side)

Transmission speed	78 kbps
Transceiver	FT-X1 (available from Echelon® Corporation)
Transmission line form	Free topology
Terminal resistor	None (converter to be attached at the terminal of a network)

CONTROL SYSTEM
& OPTIONAL PARTS
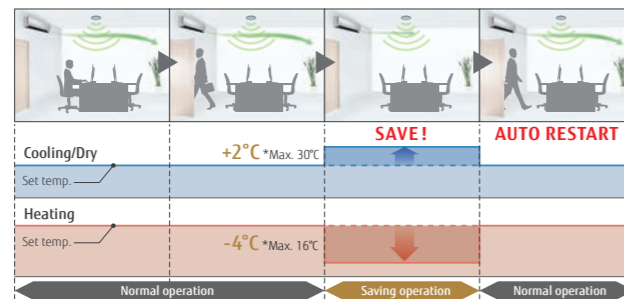
External switch controller
UTY-TERX

Up to
1 group

Air conditioner switching can be controlled by connecting this external switch controller to other sensor switches.

- In combination with a commercially available card-key switch or other sensors, this External switch controller enables the control of ON/OFF, room temperature, and fan speed of connected air conditioners as well as master control functions. This makes this product an ideal choice for use in hotel rooms.
- Card key or other sensor switches are locally available.
- The set temperature can be specified at two points each for cooling and heating operations (4 points in total).

Installation example

Human sensor monitors the movement of a person in a room. When it detects that the person has left the room, it switches the air conditioner to low-capacity mode. When a person returns to the room, the air conditioner returns to the previous operation mode.

		SAVE!	AUTO RESTART
Cooling/Dry		+2°C *Max. 30°C	
Set temp.			
Heating			
Set temp.		−4°C *Max. 16°C	
	Normal operation	Saving operation	Normal operation

Human sensor equipment needs to be purchased separately.
Human sensor is not mounted on an External switch controller.

Signal amplifier
UTY-VSGXZ1
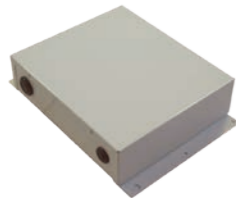
- The transmission line can be extended up to 3,600 m using multiple Signal amplifiers.
- Up to 8 Signal amplifiers can be added in a VRF network system.
- A Signal amplifier is required.
  (1) When the total wiring length of the transmission line exceeds 500 m.
  (2) When the total number of units on the transmission line exceeds 64.

Installation example

Signal amplifier

AB+BD+BC<500m
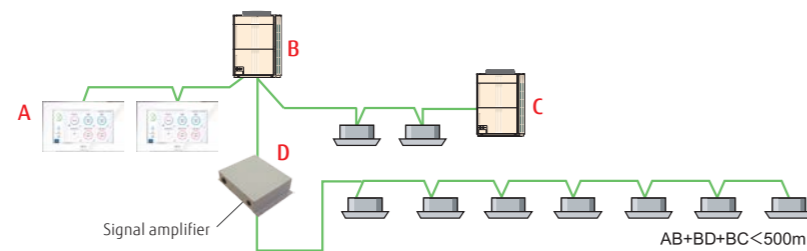
Specifications

Model name	UTY-VSGXZ1	UTY-TERX
Power supply	Single phace ~208 to 240 V 50/60 Hz	6.5 to 16 V DC
Power consumption (W)	4.5	-
Dimensions (H × W × D) (mm)	67 × 288 × 211	140 × 117 × 43
Weight (g)	1,500	250

12 V DC supplied by an indoor unit

Controller system list (available) for Split/Multi-split

Controller Options/Accessories:

	Refrigerant	Indoor unit — Wall-mounted							Indoor unit — Cassette			Indoor unit — Duct					Indoor unit — Floor / Ceiling		Multi-split — Wall-mounted					Outdoor unit — Single phase
		Designer Range	ASEG 07/09/12/14 KETF, KETF-B ASYG 07/09/12/14 KETE, KETE-B	Standard Range	ASEG 18/24KMTE	ASEH 30/36KMTB	ECO Range ASEH 07/09/12 KNCA	ASEG 07/09/12 KPCE	Compact 4-way flow Range ASEH 07/09/12 KLTA	Circular flow Range AUXG 09/12/14/18/22/24 KVLA	Slim AUXG 18/22/24/30/36/45/54 KRLB	Medium static pressure (High-Efficiency & Comfort) ARXG 09/12/14/18 KLLAP	Medium static pressure (Compact) ARXH 12/14/18/22/24/30/36/45/54 KMTAP	Medium static pressure (Standard) ARXG 12/14/18/22/24/30/36/45/54 KHTAP	High static pressure ARXG22KMLB, ARXG 24/30/36/45 KMLA	BIG ARXG 45/54KHTB	Floor AGEG 09/12/14 KVCA	Ceiling ABEG 18/22/24/30/36/45/54 KRTA	ASEH 05KNCA	ASEG 22KMTE	Compact cassette AUXG 07KVLA	Mini duct ARXG 07/09/12/14/18 KSLAP	Slim duct ARXG 07KLLAP	5/6-unit multi-split AOEG 36KBTA5
	R410A													ARYG 60LHTA	ARYG 72/90LHTA										AOYG 45LBLA6
Controllers — Wired remote controller		UTY-RVRY+ UTY-TWRXZ2.								UTY-RVRY			UTY-RVRY			UTY-RVRY	UTY-RVRY+ UTY-TWRXZ3	UTY-RVRY			UTY-RVRY+ UTY-TWRXZ2	UTY-RVRY		
		UTY-RNRYZ5+ UTY-TWRXZ2								UTY-RNRYZ5			UTY-RNRYZ5			UTY-RNRYZ5	UTY-RNRYZ5+ UTY-TWRXZ3	UTY-RNRYZ5			UTY-RNRYZ5+ UTY-TWRXZ2	UTY-RNRYZ5		
		UTY-RLRY+ UTY-TWRXZ2								UTY-RLRY			UTY-RLRY			UTY-RLRY	UTY-RLRY+ UTY-TWRXZ3	UTY-RLRY			UTY-RLRY+ UTY-TWRXZ2	UTY-RLRY		
		UTY-RCRYZ1+ UTY-TWRXZ2								UTY-RCRYZ1			UTY-RCRYZ1			UTY-RCRYZ1	UTY-RCRYZ1+ UTY-TWRZX3	UTY-RCRYZ1			UTY-RCRYZ1+ UTY-TWRXZ2	UTY-RCRYZ1		
										UTY-RVNYM		UTY-RVNYM		UTY-RVNYM	UTY-RVNYM							UTY-RVNYM		
										UTY-RNNYM		UTY-RNNYM		UTY-RNNYM	UTY-RNNYM							UTY-RNNYM		
Simple remote controller Nonpolar 2-core type		UTY-RSRY UTY-RHRY+ UTY-TWRXZ2								UTY-RSRY UTY-RHRY			UTY-RSRY UTY-RHRY			UTY-RSRY UTY-RHRY	UTY-RSRY UTY-RHRY+ UTY-TWRXZ3	UTY-RSRY UTY-RHRY			UTY-RSRY UTY-RHRY+ UTY-TWRXZ2	UTY-RSRY UTY-RHRY		
Home central remote controller																								UTY-DMMYM1*3 (KBTA5) UTY-DMMYM*3 (LBLA6)
Wireless remote controller										UTY-LNTY												UTY-LNTY		
IR receiver unit with Wireless remote controller For Duct type																UTY-LRHYM								
For Duct type / For Cassette type / For Ceiling type										UTY-LBTYC			UTY-LBTYM			UTY-LBTYM	UTY-LBTYM	UTY-LBTYH				UTY-LBTYM		

*There are no optional parts for the KL Series.

*1: Available only when the WLAN adapter (UY-TFSXF2) is removed.   *2 Available only when the WLAN adapter (UTY-TFSXZ1) is removed.

*3 Consult your dealer for conditions of use.

CONTROL SYSTEM & OPTIONAL PARTS

Controller system list (available) for Split/Multi-split
Controller Options/Accessories:

	Refrigerant	Indoor unit																			Indoor unit				
		Wall-mounted								Cassette				Duct								Multi-split			
		Designer Range	Standard Range				ECO Range			Compact 4-way flow Range	Circular flow Range		Slim	Medium static pressure (High-Efficiency & Comfort)	Medium static pressure (Compact)	Medium static pressure (Standard)	High static pressure		BIG	Floor	Ceiling	Wall-mounted	Compact cassette	Mini duct	Slim duct
Type		ASEH07/09/12/14KGTG, ASYG07/09/12/14KGTF, ASYG07/09/12/14KGTE	ASEG07/09/12/14 KETF, KETF-B ASYG07/09/12/14 KETE, KETE-B	ASEH07/09/12/14KMCG,KMCG-B, ASYG07/09/12/14KMCT, ASYG07/09/12/14KMCE	ASEG 18/24KMTE	ASEH 30/36KMTB	ASEH 07/09/12 KNCA	ASEG 07/09/12 KPCE	ASEH 07/09/12 KLTA	ASEG 18/24KLCA	AUXG 09/12/14/18/22/24 KVLA	AUXG 18/22/24/30/36/45/54 KRLB	ARXG 09/12/14/18 KLLAP	ARXH 12/14/18 22/24/30/36/45/54 KMTAP	ARXG 12/14/18/22/24/30/36/45/54 KHTAP	ARXG22KMLB, ARXG 24/30/36/45 KMLA	ARXG 45/54KHTB			AGEG 09/12/14 KVCA	ABEG 18/22/24/30/36/45/54 KRTA	ASEH 05KNCA	ASEG 22KMTE	AUXG 07KVLA	ARXG 07/09/12/14/18 KSLAP ARXG 07KLLAP
																		ARYG 60LHTA	ARYG 72/90LHTA						

Interfaces

MODBUS® Converter	UTY-VMSX				UTY-VMSX			UTY-VMSX		UTY-VMSX	UTY-VMSX*2	UTY-VMSX	UTY-VMSX*1	UTY-VMSX	
MODBUS® interface (3-wire RC-line type / CN connector type)	FG-AC-MBS1Z1				FG-RC-MBS1Z1 FG-AC-MBS1Z1			FG-RC-MBS1Z1 FG-AC-MBS1Z1		FG-AC-MBS1Z1	FG-RC-MBS1Z1	FG-RC-MBS1Z1 FG-AC-MBS1Z1	FG-AC-MBS1Z1	FG-AC-MBS1Z1	FG-RC-MBS1Z1 FG-AC-MBS1Z1
MODBUS® interface (IR type)	FG-IR-BMG1Z1				FG-IR-BMG1Z1+ UTY-LBTYC			FG-IR-BMG1Z1+ UTY-LBTYM		FG-IR-BMG1Z1+ UTY-LRHYM	FG-IR-BMG1Z1	FG-IR-BMG1Z1+ UTY-LBTYH	FG-IR-BMG1Z1	FG-IR-BMG1Z1+ UTY-LBTYM	
KNX® converter	UTY-VKSX				UTY-VKSX			UTY-VKSX		UTY-VKSX	UTY-VKSX*2	UTY-VKSX	UTY-VKSX*1	UTY-VKSX	
KNX® interface (3-wire RC-line type / CN connector type)	FG-AC-KNX1Z1				FG-RC-KNX1Z1 FG-AC-KNX1Z1			FG-RC-KNX1Z1 FG-AC-KNX1Z1		FG-AC-KNX1Z1	FG-RC-KNX1Z1	FG-RC-KNX1Z1 FG-AC-KNX1Z1	FG-AC-KNX1Z1	FG-AC-KNX1Z1	FG-RC-KNX1Z1 FG-AC-KNX1Z1
KNX® interface (IR type)	FG-IR-KNX1Z1				FG-IR-KNX1Z1+ UTY-LBTYC			FG-IR-KNX1Z1+ UTY-LBTYM		FG-AC-KNX1Z1+ UTY-LBTYM	FG-IR-KNX1Z1+ UTY-LRHYM	FG-IR-KNX1Z1	FG-IR-KNX1Z1+ UTY-LBTYH	FG-IR-KNX1Z1	FG-IR-KNX1Z1+ UTY-LBTYM

WLAN adapter

(3-wire RC-line type*3 / CN connector type)	UTY-TFSXJ3 UTY-TFSXZ1				UTY-TFSXJ3 UTY-TFSXZ1			UTY-TFNXZ1		UTY-TFSXJ3 UTY-TFSXZ1				UTY-TFSXJ3 UTY-TFSXZ1	
USB type*3	Accessory (KGTG, KGTF, KETF, KETF-B, KMCG, KMCF) UTY-TFSXH3,UTY-TFSXF2 (KGTE, KETE, KETE-B, KMCE)	UTY-TFSXH3 UTY-TFSXF2	Accessory	UTY-TFSXH3 UTY-TFSXF2									Accessory	UTY-TFSXH3 UTY-TFSXF2	
(3-wire RC-line type / CN connector type)	FG-AC-WIF1Z1				FG-RC-WIF1Z2 FG-AC-WIF1Z1			FG-RC-WIF1Z2 FG-AC-WIF1Z1		FG-AC-WIF1Z1	FG-RC-WIF1Z2	FG-RC-WIF1Z2 FG-AC-WIF1Z1	FG-AC-WIF1Z1	FG-AC-WIF1Z1	FG-RC-WIF1Z2 FG-AC-WIF1Z1
(IR type)	FG-IR-WIF1Z1				FG-IR-WIF1Z1+ UTY-LBTYC			FG-IR-WIF1Z1+ UTY-LBTYM		FG-IR-WIF1Z1+ UTY-LRHYM	FG-IR-WIF1Z1	FG-IR-WIF1Z1+ UTY-LBTYH	FG-IR-WIF1Z1	FG-IR-WIF1Z1+ UTY-LBTYM	
(3-wire RC-line type / CN connector type)	FG-AC-WMP1Z1				FG-RC-WMP1Z1 FG-AC-WMP1Z1			FG-RC-WMP1Z1 FG-AC-WMP1Z1		FG-AC-WMP1Z1	FG-RC-WMP1Z1	FG-RC-WMP1Z1 FG-AC-WMP1Z1	FG-AC-WMP1Z1	FG-AC-WMP1Z1	FG-RC-WMP1Z1 FG-AC-WMP1Z1
(IR type)	FG-IR-WMP1Z1				FG-IR-WMP1Z1+ UTY-LBTYC			FG-IR-WMP1Z1+ UTY-LBTYM		FG-IR-WMP1Z1+ UTY-LRHYM	FG-IR-WMP1Z1	FG-IR-WMP1Z1+ UTY-LBTYH	FG-IR-WMP1Z1	FG-IR-WMP1Z1+ UTY-LBTYM	
External switch controller	UTY-TERX+UTY-TWRXZ2				UTY-TERX			UTY-TERX		UTY-TERX+ UTY-TWRXZ3	UTY-TERX	UTY-TERX+ UTY-TWRXZ2	UTY-TERX		
Network converter for single-split type	UTY-VTGX+UTY-TWRXZ2 or UTY-VTGXV+UTY-TWRXZ2				UTY-VTGX UTY-VTGXV			UTY-VTGX UTY-VTGXV		UTY-VTGX+ UTY-TWRXZ3 UTY-VTGXV+ UTY-TWRXZ3	UTY-VTGX UTY-VTGXV	UTY-VTGX+ UTY-TWRXZ2 or UTY-VTGXV+ UTY-TWRXZ2	UTY-VTGX UTY-VTGXV		

*There are no optional parts for the KL Series.
*1: Available only when the WLAN adapter (UY-TFSXF2) is removed.   *2 Available only when the WLAN adapter (UTY-TFSXZ1) is removed.
*3: For compatibility of the new WLAN adapters with the indoor units which are not listed in this catalogue, please refer to page C-021.

CONTROL SYSTEM & OPTIONAL PARTS

Controller system list (available)   for VRF
Controller Options:

Indoor unit

	Refrigerant	Cassette						Duct						Duct			Floor		Ceiling/Floor	Ceiling	Wall-mounted						

Refrigerant R32 / R410A types and model numbers:

Type	R32 models	R410A models
One-way flow		AUXV 004/007/009/012/014/018/024GLEH
3D flow		AUXS 018/024 GLEH
Compact Grid type/Standard type	AUXB 004/005/007/009/012/014/018HLAH	AUXB 004/007/009/012/014/018/024GLEH
High Efficiency	AUXN 009/012/014 HLAH	
Circular flow		AUXM 018/024/030 GLEH
Large type		AUXK 018/024/030/034/036/045/054GLEH
Mini (With drain pump)		ARXK 004/007/009/012/014/018/024GLGH
Slim (With drain pump)		ARXD 04GALH
Low static pressure duct / High Efficiency	ARXD 004/005/007/009/012/014/018/024 HLAH	ARXD 007/009/012/014/018/024 GLEH
	ARXP 009/012/014 HLAH	ARXP 018/030 GLFH
Medium static pressure / Normal		ARXA 024/030/036/045 GLEH
High static pressure / Normal		ARXC 036/045/060/072/090/096 GTEH
Floor –		AGYA 004/007/009/012/014 GCGH
Floor External EEV		AGYE 004/007/009/012/014 GCEH
Ceiling/Floor		ABYA 012/014/018/024 GTEH
Ceiling		ABYA 030/036/045/054 GTEH
Wall-mounted –	ASYA 004/005/007/009/012/014 HCAH	ASYA 004/007/009 GCGH
Wall-mounted External EEV	ASYE 004/005/007/009/012/014 HCAH	ASYE 004/007/009 GCEH
Wall-mounted –		ASYA 012/014GCGH
Wall-mounted External EEV		ASYE 012/014GCEH
Wall-mounted –		ASYA 18/24GBCH
Wall-mounted –		ASYA 030/034GTEH

Controller options

Category	Product	Left section (Indoor unit)	Right section (Indoor unit)
Controllers — Wired remote controller		UTY-RVRY	UTY-RVRY
		UTY-RNRYZ5	UTY-RNRYZ5
Wired remote controller		UTY-RLRY	UTY-RLRY
		UTY-RCRYZ1	UTY-RCRYZ1
Simple remote controller	Nonpolar 2-core type	UTY-RSRY / UTY-RHRY	UTY-RSRY / UTY-RHRY
Wireless remote controller	UTY-LNVY UTY-LNHY	UTY-LNVY / UTY-LNHY	UTY-LNVY / UTY-LNHY
IR receiver unit		UTY-TRHX	UTY-LBHXD	UTY-TRHX	UTB-YWC	UTY-TRHX	UTY-TRHX
Central remote controller		UTY-DCGYZ3	UTY-DCGYZ3
Touch panel controller		UTY-DTGYZ1	UTY-DTGYZ1
System controller, System controller Lite		UTY-APGXZ1, UTY-ALGXZ1	UTY-APGXZ1, UTY-ALGXZ1

Controller system list (available) — for VRF
Controller Options:

Indoor unit types

R32:
- AUXB 004/005/007/009/012/014/018HLAH
- AUXN 009/012/014 HLAH
- ARXD 004/005/007/009/012/014 018/024 HLAH
- ARXP 009/012/014 HLAH
- ASYA 004/005/007/009/012/014 HCAH
- ASYE 004/005/007/009/012/014 HCAH

R410A:
- AUXV 004/007/009/012/014/018/024GLEH
- AUXS 018/024 GLEH
- AUXB 004/007/009/012/014/018/024GLEH
- AUXM 018/024/030 GLEH
- AUXK 018/024/030/034/036/045/054GLEH
- ARXK 004/007/009/012/014/018/024GLGH
- ARXD 04GALH
- ARXD 007/009/012/014/018/024 GLEH
- ARXP 018/030 GLFH
- ARXA 024/030/036/045 GLEH
- ARXC 036/045/060/072/090/096 GTEH
- AGYA 004/007/009/012/014 GCGH
- AGYE 004/007/009/012/014 GCEH
- ABYA 012/014/018/024 GTEH
- ABYA 030/036/045/054 GTEH
- ASYA 004/007/009 GCGH
- ASYE 004/007/009 GCEH
- ASYA 012/014GCGH
- ASYE 012/014GCEH
- ASYA 18/24GBCH
- ASYA 030/034GTEH

Controller options

Category	Connection	Cassette / Duct (left section)	Wall-mounted (right section)	Last columns
Interfaces	—	UTY-ABGXZ1, UTY-VBGX	UTY-ABGXZ1, UTY-VBGX	
BACnet® gateway	CN connector type	FG-AC-BAC1Z1	FG-AC-BAC1Z1	FG-AC-BAC1Z1
	IR type	FG-IR-BMG1Z1+UTY-TRHX / FG-IR-BMG1Z1 / FG-IR-BMG1Z1+UTY-LBHXD / FG-IR-BMG1Z1+UTY-TRHX / FG-IR-BMG1Z1+UTB-YWC / FG-IR-BMG1Z1+UTY-TRHX	FG-IR-BMG1Z1	
Network converter for LonWorks™	—	UTY-VLGX	UTY-VLGX	
MODBUS® Converter	—	UTY-VMSX	UTY-VMSX	UTY-VMSX
	—	UTY-VMGX / FG-TL-MBS16Z1	UTY-VMGX / FG-TL-MBS16Z1	
MODBUS® interface	3-wire RC-line type / CN connector type	FG-AC-MBS1Z1 / FG-RC-MBS1Z1 / FG-AC-MBS1Z1	FG-AC-MBS1Z1	FG-RC-MBS1Z1 / FG-AC-MBS1Z1
	IR type	FG-IR-BMG1Z1+UTY-TRHX / FG-IR-BMG1Z1 / FG-IR-BMG1Z1+UTY-LBHXD / FG-IR-BMG1Z1+UTY-TRHX / FG-IR-BMG1Z1+UTB-YWC / FG-IR-BMG1Z1+UTY-TRHX	FG-IR-BMG1Z1	
KNX® converter	—	UTY-VKSX	UTY-VKSX	UTY-VKSX
	—	UTY-VKGX / FG-TL-KNX16Z1	UTY-VKGX / FG-TL-KNX16Z1	
KNX® interface	3-wire RC-line type / CN connector type	FG-AC-KNX1Z1 / FG-RC-KNX1Z1 / FG-AC-KNX1Z1	FG-AC-KNX1Z1	FG-RC-KNX1Z1 / FG-AC-KNX1Z1
	IR type	FG-IR-KNX1Z1+UTY-TRHX / FG-IR-KNX1Z1 / FG-IR-KNX1Z1+UTY-LBHXD / FG-IR-KNX1Z1+UTY-TRHX / FG-IR-KNX1Z1+UTB-YWC / FG-IR-KNX1Z1+UTY-TRHX	FG-IR-KNX1Z1	
WLAN adapter	CN connector type *1	UTY-TFSXJ3 / UTY-TFSXZ1 / UTY-TFSXJ3 UTY-TFSXZ1 (007-024) / UTY-TFSXJ3 UTY-TFSXZ1	UTY-TFSXJ3 / UTY-TFSXZ1	UTY-TFSXJ3 / UTY-TFSXZ1
	3-wire RC-line type / CN connector type	FG-AC-WIF1Z1 / FG-RC-WIF1Z2 / FG-AC-WIF1Z1	FG-AC-WIF1Z1	FG-RC-WIF1Z2 / FG-AC-WIF1Z1
	IR type	FG-IR-WIF1Z1+UTY-TRHX / FG-IR-WIF1Z1 / FG-IR-WIF1Z1+UTY-LBHXD / FG-IR-WIF1Z1+UTY-TRHX / FG-IR-WIF1Z1+UTB-YWC / FG-IR-WIF1Z1+UTY-TRHX	FG-IR-WIF1Z1	
	3-wire RC-line type / CN connector type	FG-AC-WMP1Z1 / FG-RC-WMP1Z1 / FG-AC-WMP1Z1	FG-AC-WMP1Z1	FG-AC-WMP1Z1 / FG-AC-WMP1Z1
	IR type	FG-IR-WMP1Z1+UTY-TRHX / FG-IR-WMP1Z1 / FG-IR-WMP1Z1+UTY-LBHXD / FG-IR-WMP1Z1+UTY-TRHX / FG-IR-WMP1Z1+UTB-YWC / FG-IR-WMP1Z1+UTY-TRHX	FG-IR-WMP1Z1	
External switch controller	—	UTY-TERX	UTY-TERX	

*1: For compatibility of the new WLAN adapters with the indoor units which are not listed in this catalogue, please refer to page C-021.

CONTROL SYSTEM & OPTIONAL PARTS

Optional parts Overview
For Split & Multi-split, VRF

A variety of optional parts are available to enable installation of the selected indoor unit properly according to the environment.

Optional Parts
For Cassette

Human sensor kit
A built-in thermo sensor monitors and controls room temperature accurately.

Cassette grille
A lineup of cassette grills that match a variety of interiors. A grid ceiling-type cassette grille has been added to the lineup.

For Compact cassette
For Cassette type
For Cassette type Circular flow

Silver ion filter
The Silver ion filter helps to keep indoor air free from viruses, bacteria and molds.*

Fresh air intake kit
Fresh air can be taken in by a fan connected to an external control unit.

For Compact cassette
For Circular flow cassette
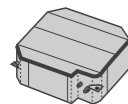
Insulation kit for high humidity
Insulation kit for high humidity is used when the installation location is in a high humidity environment.
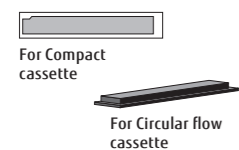
Air outlet shutter plate
Airflow directions can be changed to 3 directions using the Air outlet shutter plate depending on the installation location.

For Compact cassette
For Circular flow cassette
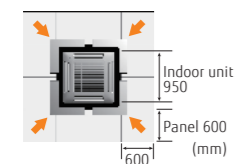
Wide Panel
When a cassette type is installed in a narrow space in the ceiling, the wide panel fills in that space.
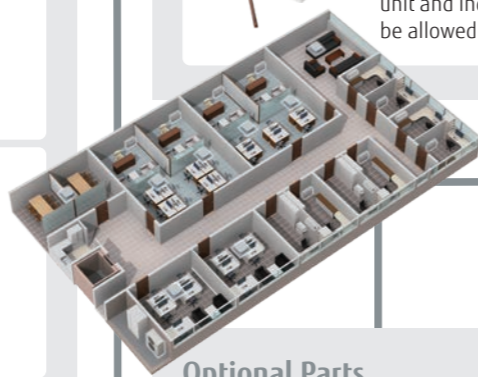
Indoor unit 950
Panel 600
600 (mm)
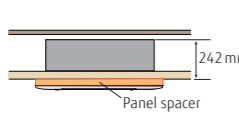
Panel spacer
If the ceiling space is tight and the main body protrudes from the ceiling surface, a panel spacer can be used as a decorative trim.

242 mm
Panel spacer

Optional Parts
For V-IV

Pressure sensor kit
When installed, the height difference between the outdoor unit and indoor unit can be allowed up to 110 m.
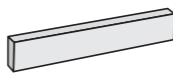
Optional Parts
For R32 VRF products

NEW

Gas Sensor kit
Used to ensure standards compliance and safety when R32 VRF products are installed.

NEW

Expansion kit
Connect to indoor units to expand the number of inputs and outputs when using multiple safety devices or external input / output functions.

Optional Parts
For Floor

Half concealed kit
Used to half conceal a floor type indoor unit in the wall.

Silver ion filter
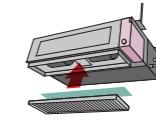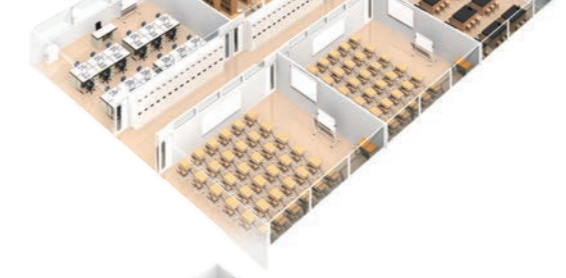The Silver ion filter helps to keep indoor air free from viruses, bacteria and molds.*

Optional Parts
For Duct & Ceiling

Auto louver grille kit
The optional clean-looking flat Auto louver grille blends into any interior and provides a comfortable airflow.
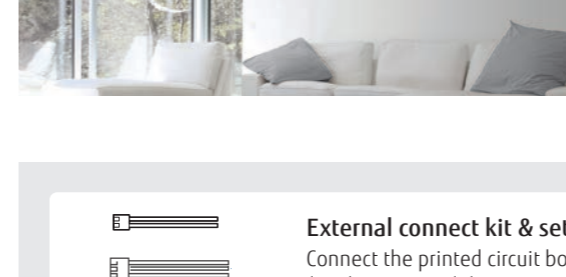
Remote sensor unit
The remote sensor provides additional convenience.

Silver ion filter
The Silver ion filter helps to keep indoor air free from viruses, bacteria and molds.*

Long-life filter
Captures grit and dust. Long-life design with consideration of running costs.
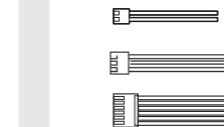
Flange
Flanges are used when connecting a medium static pressure duct type and a ceiling type with air intake and exhaust ducts.
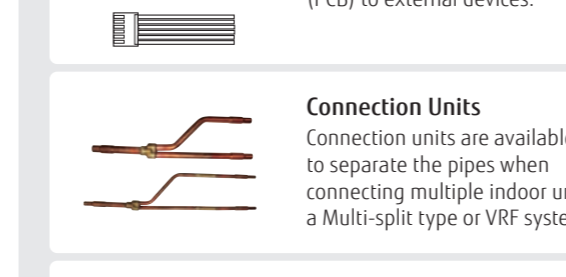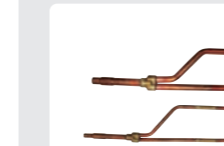
Drain pump unit
Drains water that has accumulated during operation.

Connection Parts

Communication kit
Required for a wall-mounted type when the External connect kit set or a Wired remote controller is connected to the indoor unit.

For wall-mounted type

External input and output PCB
For Wall-mounted, Duct, or Cassette type, these parts are required when the external input and output function is used.

For wall-mounted type

For Duct type and Cassette type

External input and output PCB box & bracket
Box and bracket for installing the External input and output PCB.

External connect kit & set
Connect the printed circuit board (PCB) to external devices.

Connection Units
Connection units are available to separate the pipes when connecting multiple indoor units in a Multi-split type or VRF system.

External power supply unit
The External power supply unit protects the increment in the system even if the power supply for some of the indoor units is shut down.

*Not a result of experiments in an actual use environment. Silver ion filter inhibits activity or growth of microorganism, but do not prevent infection.

CONTROL SYSTEM & OPTIONAL PARTS

Silver Ion Filter

UTR-FA16-5 / UTR-FA13-3 / UTR-FA03-5 / UTD-HFAA / UTD-HFRA / UTD-HFTA / UTD-HFTB /
UTD-HFTC / UTD-HFNC / UTD-HFNB / UTD-HFNA / UTD-HFND / UTD-HFKB / UTD-HFKA

For Wall mounted / Floor
UTR-FA16-5 / UTR-FA13-3
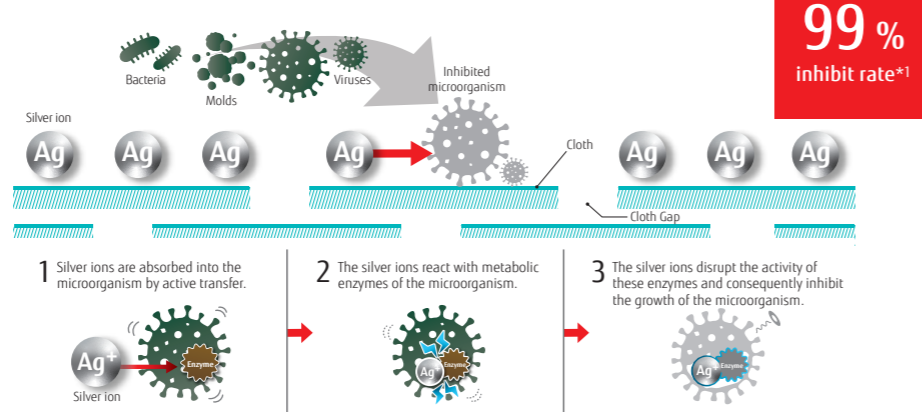UTR-FA03-5

For Cassette
UTD-HFAA / UTD-HFRA

For Duct
UTD-HFTA / UTD-HFTB
UTD-HFTC / UTD-HFNC
UTD-HFNB / UTD-HFNA
UTD-HFND / UTD-HFKB
UTD-HFKA

The Silver ion filter helps to keep indoor air free from viruses, bacteria and molds.

(Not a result of experiments in an actual use environment. Silver ion filter inhibits activity or growth of microorganism, but do not prevent infection.)

The silver ion filter inhibits the activities of viruses*1, bacteria*2 and molds*3 trapped on the filter.

(Only effective when the microorganism is trapped on the filter with dust or droplet)

99 %
inhibit rate*1

Bacteria   Viruses
Molds   Inhibited microorganism

Silver ion   Cloth

Cloth Gap

1 Silver ions are absorbed into the microorganism by active transfer.

2 The silver ions react with metabolic enzymes of the microorganism.

3 The silver ions disrupt the activity of these enzymes and consequently inhibit the growth of the microorganism.

Silver ion

*1 [Testing organization] Kitasato Research Center for Environmental Science [Test Report] No. 2020_0408 [Test virus] Escherichia coli phage Qbeta NBRC 20012 (1 type) [Test Method] Based on the antiviral test method for textile products (JIS L 1922) [Test results] Inhibited by at least 99% in 24 hours. Not tested to prevent transmission of SARS-CoV-2.

*2 [Testing organization] Kitasato Research Center for Environmental Science [Test Report] No. 2020_0409 [Test bacteria] Escherichia coli NBRC 3972 (1 type) [Test Method] Based on the determination of antibacterial activity and efficacy of textile products (JIS L 1902) [Test results] The growth of the test bacteria was inhibited by 24 hours testing

*3 [Testing organization] Kitasato Research Center for Environmental Science [Test Report] No. 2020_0410 [Test fungi] Aspergillus Niger NBRC 105649 and other fungi (3 types) [Test Method] Based on the test for fungus resistance (JIS Z 2911) [Test results] The growth of the fungus was inhibited by 28 days testing

The filter is easily removable* and hand-washable.

(*Wall mounted and floor models only)

Silver ion filter

Easy installation and removal

Sufficient prevention effect even after repeated washings.*4

hand-washable

*4 Hand-washing or vacuuming by 3 months is recommended. Cleaning frequency varies depending on the environment of use.

Specifications

Model name		For Wall mounted / Floor			for Cassette	
		UTR-FA16-5	UTR-FA13-3	UTR-FA03-5	UTD-HFAA	UTD-HFRA
Net Dimension (H × W × D)	mm	35 × 210 × 6	50 × 364 × 6	43 × 272 × 6	350 × 125 × 6	550 × 136 × 6
Weight	g	2	2	2	7	23
Quantity		2	2	2	1	1

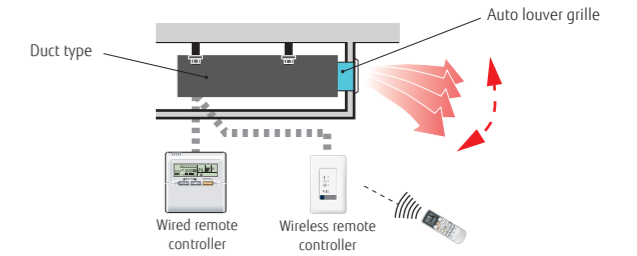| Model name		for Duct								
		UTD-HFTA	UTD-HFTB	UTD-HFTC	UTD-HFNC	UTD-HFNB	UTD-HFNA	UTD-HFND	UTD-HFKB	UTD-HFKA
Net Dimension (H × W × D)	mm	290 × 70 × 6	390 × 70 × 6	290 × 70 × 6 390 × 70 × 6	620 × 88 × 6	420 × 88 × 6	620 × 88 × 6	500 × 79 × 6	420 × 125 × 6	620 × 108 × 6
Weight	g	6	8	10	8	10	16	12	16	20
Quantity		2	2	3	1	2	2	2	2	2

Auto louver grille kit

UTD-GXTA-W / UTD-GXTB-W / UTD-GXTC-W

The optional clean-looking flat Auto louver grille kit blends into any interior and provides a comfortable airflow.
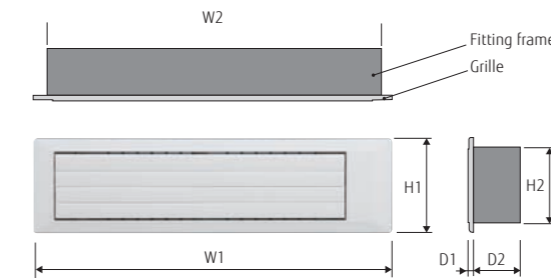
Closed louver   Open louver

Flexible Control

• The Auto louver grille of the indoor unit can be operated in conjunction with the remote control of the indoor unit.

• Vertical auto swing
  • Auto airflow direction and auto swing
  • 4 steps selectable

• Auto-closing louver
  The louvers will automatically close when the indoor unit stops operating.

Auto louver grille

Duct type

Wired remote controller   Wireless remote controller

Dimensions

W2
Fitting frame
Grille

H1   H2

W1   D1   D2

Unit: mm

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

Specifications

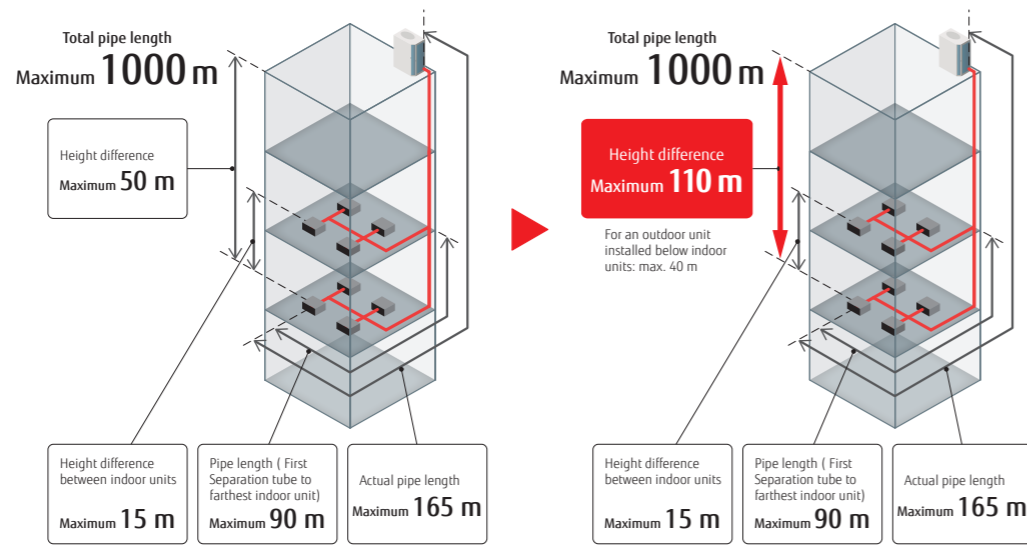| Model name			UTD-GXTA-W	UTD-GXTB-W	UTD-GXTC-W
Applicable indoor unit	SPLIT & MULTI-SPLIT		ARYG07/09LLTA ARXG07/09/12/14KSLAP ARXG07/09/12/14KLLAP ARYG07/09LSLAP	ARXG18KSLAP ARXG18KLLAP	
	VRF		ARXD007/009/012/014GLEH ARXK004/007/009/012/014GLGH ARXD04GALH ARXD004/005/007/009/012/014HLAH ARXP009/012/014HLAH	ARXD018GLEH ARXD018HLAH ARXK018GLGH	ARXD024GLEH ARXD024HLAH ARXK024GLGH
Power supply			Connecting with Control box of indoor unit		
Fixing Auto louver grille			Screwed to Flange or Square duct		
Extension Square duct limit			1.0 m (Max. duct length between indoor unit and Auto louver grille)		
Net Dimensions (H × W × D)		mm	180 × 683 × (84 + 9)	180 × 883 × (84 + 9)	180 × 1,083 × (84 + 9)
Weight	Net	kg (lbs)	2.0 (4.4)	2.5 (5.6)	3.0 (6.7)
Accessories			Fitting Flame, etc.		
Operating range	Cooling	°C	18 to 32		
		% RH	80 % or less		
	Heating	°C	16 to 30		

CONTROL SYSTEM & OPTIONAL PARTS
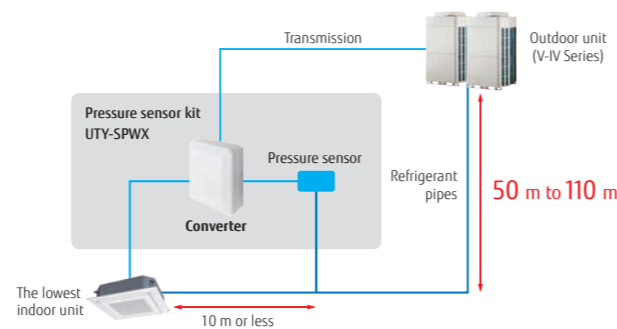
Pressure sensor kit
UTY-SPWX

Design flexibility

The height difference between the outdoor unit and the indoor unit is normally 50 m for the V-IV Series, but can be extended to 110 m by installing the Pressure sensor kit.
(Can only be connected to the V-IV Series. Also, it can only be connected to outdoor units using outdoor unit software compatible with the product.)

Total pipe length
Maximum **1000 m**

Height difference
Maximum **50 m**

Total pipe length
Maximum **1000 m**

Height difference
Maximum **110 m**

For an outdoor unit installed below indoor units: max. 40 m

Height difference between indoor units	Pipe length (First Separation tube to farthest indoor unit)	Actual pipe length
Maximum **15 m**	Maximum **90 m**	Maximum **165 m**

Height difference between indoor units	Pipe length (First Separation tube to farthest indoor unit)	Actual pipe length
Maximum **15 m**	Maximum **90 m**	Maximum **165 m**

System overview

Transmission

Outdoor unit (V-IV Series)

Pressure sensor kit UTY-SPWX

Pressure sensor

Refrigerant pipes

50 m to 110 m

Converter

The lowest indoor unit

10 m or less

Pressure sensor kit

Pressure sensor kit (Converter)	Refrigerant pressure sensor	Joint pipe

Specifications

Model name	UTY-SPWX
Power supply	9 to 16 V DC
Dimensions (H × W × D) (mm)	140 × 117 × 43
Weight (g)	200

External power supply unit
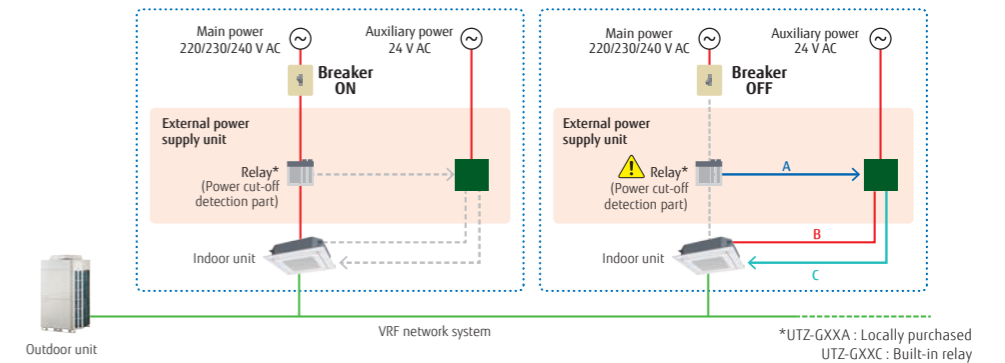**UTZ-GXXA / UTZ-GXXC**

The External power supply unit protects the increment in the system even if the power supply for some of the indoor units is shut down.

Connects to the External power supply unit to supply power to the indoor unit from the auxiliary power supply. This allows for continuous operation without system errors.
Built-in relays reduce installation time and cost.
The UTZ-GXXC have a built-in relay, which reduces installation time and cost.

High reliability

- A: Interruption of the main power supply is detected by the power cut-off detection part.
- B: Supplies power for driving the expansion valve of the indoor unit. (12 V or 5 V DC)
- C: Gives notification of the power supply from the External power supply unit.

Main power 220/230/240 V AC
Auxiliary power 24 V AC
Breaker ON
External power supply unit
Relay* (Power cut-off detection part)
Indoor unit

Main power 220/230/240 V AC
Auxiliary power 24 V AC
Breaker OFF
External power supply unit
Relay* (Power cut-off detection part)
Indoor unit
A
B
C

Outdoor unit

VRF network system

*UTZ-GXXA : Locally purchased
UTZ-GXXC : Built-in relay

Note
- When changing the power supply voltage to 24 V AC, use a power transformer with an insulated structure that complies with the regulations* of the installation region.
- A powered-off indoor unit driven by the External power supply unit is treated in the same way as an operation-off unit in the electricity charge appointment function. If standby power is generated, the result of the electricity charge appointment may not be zero.

* UL Class II or IEC 61558 Class III, for example.

Specifications

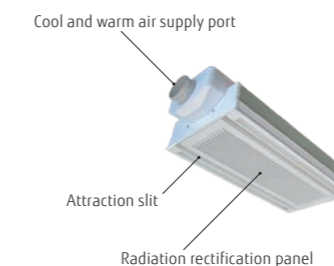| Model name	UTZ-GXXA	UTZ-GXXC
Power supply	24 V AC 50/60 Hz	
Dimensions (H × W × D) (mm)	97 × 200 × 178	
Weight (g)	800	

AIR BEAM
Radiation air outlet unit

*Production by order
Contact us for more details.

Key component

Cool and warm air supply port

Attraction slit

Radiation rectification panel

Cross-section view

Connects to HVAC duct system, supplying cool and warm air.

Air supply adapter

Unit

Ceiling

Indoor

Aluminum radiating fin

Rectification panels

Draws in air from the room slowly and mixes it with the conditioned supply air to create a comfortable airflow.

Built-in aluminum heat-dissipating fins and rectification panels help to disperse and rectify airflow.

Airflow rate (m³/h)	180 (160-215)	270 (240-325)
Grid	600 × 2	600 × 3
AIR BEAM For system ceiling (Integrated type)	KS-180	KS-270

CONTROL SYSTEM & OPTIONAL PARTS

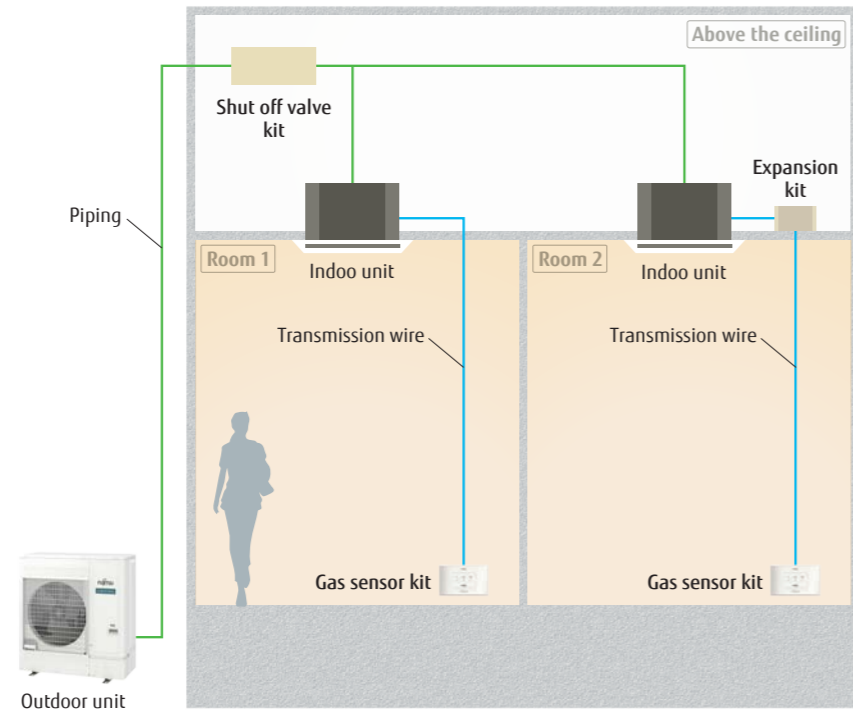# Gas sensor kit
UTY-SGZY

NEW

Enhanced disaster safety measures

The system is designed to meet the environmental safety requirements specified in the IEC 603352-40 standard for the use of R32 refrigerant. The environment requiring safety measures is determined by the size of the room in relation to the amount of refrigerant required.
For example, if the system is designed for maximum pipe length and the refrigerant charge is 6 kg, safety measures are required for rooms of 15 m² or less.

For Example: Total pipe length 120m

Above the ceiling

Shut off valve kit

Expansion kit

Piping

Room 1 — Indoo unit
Room 2 — Indoo unit

Transmission wire

Transmission wire

Gas sensor kit

Gas sensor kit

Outdoor unit

Shut off valve kit
UTP-GX027A, UTP-GX060A
Block the path to prevent refrigerant flow in the event of a refrigerant leakage.

Gas sensor kit
UTY-SGZY*
Gas Sensor kit Used to ensure standards compliance and safety when R32 VRF products are installed.
*Connection cable (UTY-XWZXZL) is required.

Expansion kit
UTZ-JXXA
Used to ensure standards compliance and safety when R32 VRF products are installed.

Conditions requiring safety measures

The graph below will help you determine if a safety design is required when installing R32 VRF products.The amount of refrigerant in a refrigerant system determines the floor area, and if the room to be conditioned by the system is less than that area, a "shut off valve kit" and a "gas sensor kit" must be installed.

VRF J-VS
Refrigerant charge : 2.7kg
Max charge(Total pipe length 120m) : 6.0kg

: J-VS

Amount of refrigerant (kg)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0

5   10   15   20
Floor space (m²)

* 75%LFL
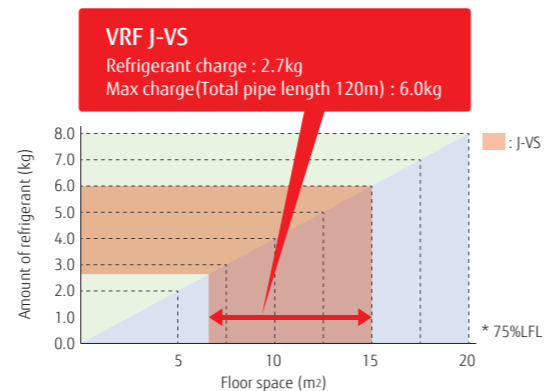
Features: Gas sensor kit

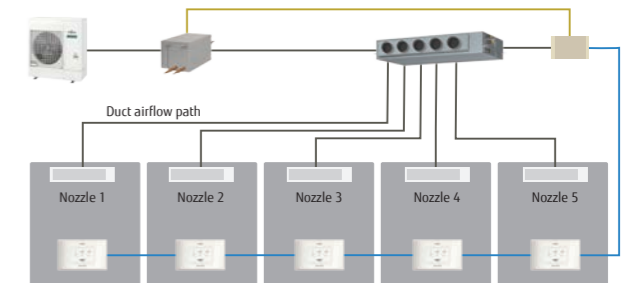## Refrigerant leak detector connection pattern

1) Corresponds to the case where the classification of air conditioner installation differs from property to property.

Installation position of "Shut off valve kit"

A Indoor unit 1~4 in one room
B Indoor units 1, 2 and 3, 4, if they are set up in two separate rooms.
C Indoor units 1~4 are installed in different rooms.

A   B   C
Shut off valve kit

C Room 1 | Room 2 | Room 3 | Room 4
B Room 1 | Room 2
A Room 1
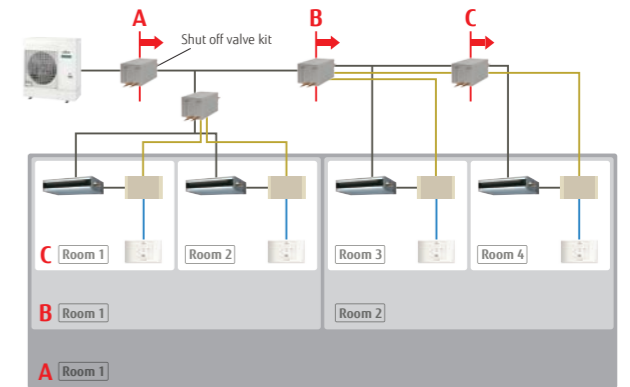
2) Multiple rooms or areas are air conditioned using ducted airflow paths

Duct airflow path

Nozzle 1 Nozzle 2 Nozzle 3 Nozzle 4 Nozzle 5

3) When operating multiple indoor units with a remote control group
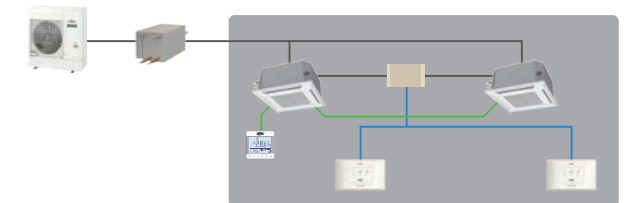
Specifications

Model name	UTY-SGZY
Dimensions (H × W × D) (mm)	80 × 130 × 35
Weight (g)	500

Optional parts list for Split/Multi-split

Part	Refrigerant	Designer Range — ASEH07/09/12/14KGTG, ASYG07/09/12/14KGTF, ASYG07/09/12/14KGTE	Designer Range — ASEG07/09/12/14KETF, KETF-B ASYG07/09/12/14KETE, KETE-B	Standard Range — ASEH07/09/12/14KMCG, KMCG-B, ASYG07/09/12/14KMCF, ASYG07/09/12/14KMCE	Standard Range — ASEG18/24KMTE	Standard Range — ASEH30/36KMTB	ECO Range — ASEH05/07/09/12KNCA	ECO Range — ASEG07/09/12KPCE	ECO Range — ASEH07/09/12KLTA	ECO Range — ASEG18/24KLCA	4-way flow Compact — AUXG09/12/14/18/22/24KVLA	Circular flow — AUXG18/22/24/30/36/45/54KRLB	Slim — ARXG09/12/14/18KLLAP	Medium static pressure (High-Efficiency & Comfort) — ARXH12/14/18/22/24/30/36/45/54KMTAP	Medium static pressure (Compact) — ARXG12/14/18/22/24/30/36/45/54KHTAP	Medium static pressure (Standard) — ARXG22KMLB, ARXG24/30/36/45KMLA	High static pressure — ARXG45/54KHTB / ARYG60LHTA	Big — ARYG72/90LHTA	Floor — AGEG09/12/14KVCA	Ceiling — ABEG18/22/24/30/36/45/54KRTA	Multi-split 4-way flow Compact cassette — AUXG07KVLA / AUYG07/09LVLA	Multi-split Mini duct — ARXG07/09/12/14/18KSLAP / ARYG07/09LSLAP	Multi-split Slim duct — ARXG07KLLAP / ARYG07/09LLTA
Human sensor kit												UTY-SHZXC											
Remote sensor unit	The remote sensor provides additional convenience.												UTY-XSZXZ1									UTY-XSZXZ1	
Cassette grille	UTG-UFYF-W, UTG-UKYA-W, UTG-UFYD-W, UTG-UKYC-W, UTG-UKYA-B										UTG-UFYF-W	UTG-UKYA-W, UTG-UKYC-W, UTG-UKYA-B									UTG-UFYF-W (KVLA), UTG-UFYD-W (LVLA)		
Auto louver grille kit													UTD-GXTA-W (09/12/14) UTD-GXTB-W (18)										UTD-GXTA-W (07/09/12/14), UTD-GXTB-W (18)
Silver ion filter		UTR-FA16-5	UTR-FA16-5	UTR-FA16-5	UTR-FA16-5	UTR-FA13-3	UTR-FA16-5	UTR-FA16-5	UTR-FA16-5	UTR-FA16-5	UTD-HFAA	UTD-HFRA	UTD-HFTA (09/12/14) UTD-HFTB (18)	UTD-HFNC (12/14/18) UTD-HFNB (22/24), UTD-HFNA (30/36/45/54)	UTD-HFNC (12/14) UTD-HFNB (18/22/24/30) UTD-HFNA (36/45/54)	UTD-HFND	UTD-HFKB (45/54)	UTD-HFKA	UTR-FA03-5		UTD-HFAA	UTD-HFTA (07/09/12/14) UTD-HFTB (18)	UTD-HFTA
Long-life filter														UTD-LFDC (12/14/18) UTD-LFDB (22/24), UTD-LFDA (30/36/45/54)	UTD-LFNA (36/45/54) UTD-LFNB (18/22/24/30) UTD-LFNC (12/14)	UTD-LF25NA	UTD-LF60KA (45/54)	UTD-LFKA					
Flange																UTD-SF045T UTD-RF204							
Drain pump unit																UTZ-PX1NBA	UTZ-PX1NAB			UTR-DPB24T			
Wide Panel												UTG-AKXA-W											
Panel spacer												UTG-BKXA-W											
Fresh air intake kit	For Compact cassette, For Circular flow cassette										UTZ-VXAA	UTZ-VXRA									UTZ-VXAA		
Air outlet shutter plate	For Compact cassette, For Circular flow cassette										UTR-YDZB	UTR-YDZK									UTR-YDZB		
Insulation kit for high humidity											UTZ-KXGC	UTZ-KXRA									UTZ-KXGC		
Half concealed kit	Used to half conceal a floor type indoor unit in the wall.																		UTR-STA				
L-type piping kit																						UTP-FX24A (18/22/24) UTP-FX35A (30/36/45/54)	

CONTROL SYSTEM & OPTIONAL PARTS

Optional parts list for VRF

Indoor unit

Type		One-way flow	3D flow	Compact grid type/Standard type / High Efficiency	Slim type / Circular flow	Large type	Mini (With drain pump)	Low static pressure duct / Slim (With drain pump) / High Efficiency			Low static pressure duct / High Efficiency	Medium static pressure / Normal	High static pressure / Normal		Floor / –	external EEV	Floor/Ceiling	Ceiling	Wall-mounted –	external EEV	–	–	V-IV Series

R32 Type: AUXB 004/005/007/009/012/014/018HLAH; AUXN 009/012/014 HLAH; ARXD 004/005/007/009/012/014/018/024 HLAH; ARXP 009/012/014 HLAH; ASYA 004/005/007/009/012/014 HCAH; ASYE 004/005/007/009/012/014 HCAH

R410A Type: AUXV 004/007/009/012/014/018/024GLEH; AUXS 018/024GLEH; AUXB 004/007/009/012/014/018/024GLEH; AUXM 018/024/030 GLEH; AUXK 018/024/030/034/036/045/054GLEH; ARXK 004/007/009/012/014/018/024GLEH; ARXD 04GALH; ARXD 007/009/012/014/018/024 GLGH; ARXP 018/030 GLFH; ARXA 024/030/036/045 GLEH; ARXC 036/045/060 GTEH; ARXC 072/090/096 GTEH; AGYA 004/007/009/012/014 GCGH; AGYE 004/007/009/012/014 GCEH; ABYA 012/014/018/024 GTEH; ABYA 030/036/045/054 GTEH; ASYA 004/007/009/012/014 GCGH; ASYE 004/007/009/012/014 GCEH; ASYA 18/24GBCH; ASYA 030/034GTEH; AJY 072/090/108/126/144/162 LALDH

Part	Details
Human sensor kit	UTY-SHZXC
Remote sensor unit	UTY-XSZXZ1
Cassette grille	UTG-UNYA-W, UTG-UNYB-W, UTG-USYA-W, UTG-UFYC-W, UTG-UKYC-W, UTG-UFYE-W, UTG-UKYA-B, UTG-UFYH-W; UTG-UNYA-W (004-012) UTG-UNYB-W (014-024); UTG-USYA-W; UTG-UFYE-W UTG-UFYC-W UTG-UFYH-W (HLAH); UTG-UFYH-W; UTG-UKYC-W UTG-UKYA-B
Auto louver grille kit	UTD-GXTA-W (4-14), UTD-GXTB-W (18), UTD-GXTC-W (24)
Silver ion filter	UTD-HFAA; UTD-HFRA; UTD-HFTA (004-014) UTD-HFTB (018) UTD-HFTC (024); UTD-HFTA; UTD-HFTA (007-014) UTD-HFTB (018) UTD-HFTC (024); UTD-HFND; UTD-HFKB; UTR-FA03-5; UTR-FA16-5; UTR-FA13-3
Long-life filter	UTD-LF25NA; UTD-LF60KA
Flange	UTD-SF045T UTD-RF204; UTD-RF204
Drain Pump Unit	UTZ-PX1NBA; UTR-DPB24T
Wide Panel	UTG-AKXA-W
Panel spacer	UTG-BKXA-W
Fresh air intake kit *1	UTZ-VXAA; UTZ-VXRA
Air outlet shutter plate	UTR-YDZB; UTR-YDZK
Insulation kit for high humidity	UTZ-KXGC; UTZ-KXRA
Half concealed kit	UTR-STA
External power supply unit	UTZ-GXXA UTZ-GXXC; UTZ-GXXA UTZ-GXXC (HLAH); UTZ-GXXA UTZ-GXXC; UTZ-GXXA UTZ-GXXC (HLAH); UTZ-GXXA UTZ-GXXC; UTZ-GXXA UTZ-GXXC (HCAH); UTZ-GXXA UTZ-GXXC
Pressure sensor kit	UTY-SPWX
Gas sensor kit	UTY-SGZY+ UTY-XWZXZL (HLAH); UTY-SGZY+ UTY-XWZXZL (HLAH); UTY-SGZY+ UTY-XWZXZL; UTY-SGZY+ UTY-XWZXZL (HCAH)

Function list for Split/Multi-split

External input and output function/External connect kit/communication kit

*1: Included in Fresh air intake kit (UTZ-VXAA or UTZ-VXRA) *2: Functionality for installation in a server room

●: Dry Contact ○: Apply Voltage

The table below lists external input and output functions across Indoor unit (Wall-mounted: Designer Range, Standard Range, ECO Range; Cassette: Compact 4-way flow Range, Circular flow Range; Duct: Slim, Medium static pressure High-Efficiency & Comfort, Medium static pressure Compact, Medium static pressure Standard, High static pressure, Big; Floor; Ceiling) and Outdoor unit (Single Split, Simultaneous multi-split) with R32 and R410A refrigerants.

Input functions:
- Operation/Stop — PCB Terminal or UTY-XCSX+UTZ-GXRA / UTY-XWZXZS / UTY-XCSX+UTZ-GXDA / UTY-XCSX+UTZ-GXNA / UTD-ECS5A / UTY-XCSX+UTZ-GXEA etc.
- Forced stop — PCB Terminal / UTY-XCSXZ2+UTY-XWZXZS / UTD-ECS5A / UTY-XWZXZS etc.
- Forced Thermostat off — UTY-XCSXZ2+UTY-XWZXZS / UTY-XCSX+UTZ-GXRA / UTY-XCSX+UTZ-GXNA / UTD-ECS5A / UTY-XCSX etc.
- Low noise mode operation — UTY-XWZXZ3 / UTY-XWZXZ2 / UTY-XWZXZ22
- Outdoor unit operation peak control — UTY-XWZXZ3 / UTY-XWZXZ2 / UTY-XWZXZ22

Output functions:
- Operation status — UTY-XWZXZG or UTY-XCSX+UTZ-GXRA etc.
- Error status — UTY-XWZXZG or UTY-XCSX etc.
- Compressor status — UTY-XWZXZ3 / UTY-XWZXZ2 / UTY-XWZXZ22
- Indoor unit fan operation status — UTY-XWZXZG or UTY-XCSX etc.
- Setpoint attainment status
- Auxiliary heater output — UTY-XWZXZG or UTY-XCSX+UTZ-GXRA etc.

For SPLIT/MULTI-SPLIT/SIMULTANEOUS MULTI-SPLIT

Communication kit
UTY-TWRXZ3 UTY-TWRXZ2

External input and output PCB
UTY-XCSXZ1 (wire length 280 mm)
UTY-XCSXZ2 (wire length 80 mm) for Wall-mounted type
UTY-XCSX for Duct and Cassette types

External input and output PCB box
UTZ-GXDA (for Duct)
UTZ-GXRA (for Cassette)
UTZ-GXEA (for Ceiling)

External input and output PCB bracket
UTZ-GXNA

Communication system

External connect kit
For indoor unit
UTY-XWZX UTY-XWZXZS5 UTY-XWZXZG

For outdoor unit
UTY-XWZXZ2 UTY-XWZXZ3

External control set
For indoor unit
UTD-ECS5A

CONTROL SYSTEM & OPTIONAL PARTS

Function list for VRF

External input and output function/External connect kit

		Indoor unit																		Indoor unit											Outdoor unit						controller	Other
			Cassette					Duct					Floor							Wall-mounted									J-VS	J-IVL	J-IV	J-IVS	V-IV	VR-IV	Central remote controller	RB unit
Type	Refrigerant	One-way flow	3D flow	Compact grid type/ Standard type		Slim type	Large type	Low static pressure			Low static pressure	Medium static pressure	High static pressure	–	EEV external		Floor/Ceiling		–	EEV external		–												
					High Efficiency		Circular flow	Mini (With drain pump)	Slim (With drain pump)		High Efficiency	High Efficiency	Normal	Normal																					

(This is a large technical function/compatibility matrix listing models and external connection kit part numbers.)

Input

Function	Cassette/Duct/Floor/Wall-mounted area	Other
Operation/Stop	● UTY-XWZXZD ○ UTY-XWZXZB (Indoor units)	
All On/All Off		● UTY-XWZXZ7 ○ UTY-XWZXZB
Group stop	● UTY-XWZXZ6 (Outdoor)	
Forced stop	● UTY-XWZXZD ○ UTY-XWZXZB	
Emergency stop	● UTY-XWZXZD ○ UTY-XWZXZB ; ● UTY-XWZXZ6	● UTY-XWZXZ7 ○ UTY-XWZXZB
Forced thermostat off	● UTY-XWZXZE ○ UTY-XWZXZ7	
Low noise mode operation	● UTY-XWZXZ6	
Cooling/Heating priority	● UTY-XWZXZ6 (One-way flow); ● UTY-XWZXZ6	● UTY-XWZXZ6 ○ UTY-XWZXZB
Outdoor unit operation peak control	● UTY-XWZXZ6	
Power usage information from electricity meter	● UTY-XWZXZF	

Output

Function		Other
Operation status	● UTY-XWZXZC ; ○ UTY-XWZXZ6	○ UTY-XWZXZA
Error status	● UTY-XWZXZC ; ○ UTY-XWZXZ6	○ UTY-XWZXZA
Indoor unit fan operation status	● UTY-XWZXZC	
Auxiliary heater output	● UTY-XWZXZC	
Base pan heater	● UTY-XWZXZ9 ; ● UTY-XWZXZ9	

Other

Function		
Expansion kit	●UTZ-JXXA (HLAH) ; ●UTZ-JXXA (HLAH) ; ●UTZ-JXXA (HCAH)	

*2: The Touch panel controller has the functions of dry contact and voltage application, but the external connection kit described above is not necessary because the touch panel controller has an external input terminal block.

●: Dry Contact   ○: Apply Voltage

For VRF

NEW **Expansion kit**	NEW **Connection Cable**
UTZ-JXXA	UTY-XWZXZL

Communication system

External connect kit

For indoor unit
UTY-XWZXZ7
UTY-XWZXZB
UTY-XWZXZC
UTY-XWZXZD
UTY-XWZXZE

For outdoor unit
UTY-XWZXZ6
UTY-XWZXZ9
UTY-XWZXZF

For RB unit
UTY-XWZXZ6
UTY-XWZXZB

Central remote controller
UTY-XWZXZ7
UTY-XWZXZ8
UTY-XWZXZA

For Touch panel controller
UTY-XWZXZA

CONTROL SYSTEM & OPTIONAL PARTS

Separation tube

For SPLIT/MULTI-SPLIT/SIMULTANEOUS MULTI-SPLIT

Separation tube

UTP-SX236A / UTP-SX254A
For 3-phase simultaneous multi-split

UTP-SX272A
For Simultaneous multi-split Twin/
Triple/Double Twin

UTP-SX354A
For 3-phase simultaneous multi-split

UTP-SX372A
For Simultaneous multi-split Twin/
Triple/Double Twin

for VRF

Separation tube

UTP-AX054A
Gas pipe
Liquid pipe

UTP-AX090A
Gas pipe
Liquid pipe

UTP-AX180A
Gas pipe
Liquid pipe

UTP-AX567A
Gas pipe
Liquid pipe

UTP-BX090A
Suction Gas pipe
Discharge Gas pipe
Liquid pipe

UTP-BX180A
Suction Gas pipe
Discharge Gas pipe
Liquid pipe

UTP-BX567A
Suction Gas pipe
Discharge Gas pipe
Liquid pipe

UTP-LX180A
For DX kit

Header

UTR-H0906L / UTR-H1806L
Gas pipe
Liquid pipe

UTR-H0908L / UTR-H1808L
Gas pipe
Liquid pipe

UTP-J0906A / UTP-J1806A
Suction gas pipe
Discharge gas pipe
Liquid pipe

UTP-J0908A / UTP-J1808A
Suction gas pipe
Discharge gas pipe
Liquid pipe

Outdoor unit branch kit

UTP-CX567A
Gas Pipe
Liquid Pipe

UTP-DX567A
Suction Gas Pipe
Discharge Gas Pipe
Liquid Pipe

Separation tube for RB unit

UTP-EX060A
Gas Pipe
Liquid Pipe

UTP-EX096A
Gas Pipe
Liquid Pipe

for VRF

EV kit

Model name ≦ 09: UTR-EV09XB
Model name ≧ 12: UTR-EV14XB
for compact wall-mounted type

NEW Model name ≦ 09: UTR-EV09XC
Model name ≦ 12: UTR-EV14XC
for R32 VRF wall-mounted type

Shut off valve kit

NEW UTP-GX027A
for R32 VRF indoor unit

NEW UTP-GX060A
for R32 VRF outdoor unit

RB unit

**UTP-RX01AH / UTP-RX01BH /
UTP-RX01CH**
Single type

UTP-RX04BH
Multi-split type

UTP-RX08AH
Multi-split type

UTP-RX12AH
Multi-split type

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

Model name	UTP-BX090A	UTP-BX180A	UTP-BX567A
Total cooling capacity of indoor unit (kW)	28.0 or less	28.1 to 56.0	56.1 or more

Header

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

Model name	3-6 Branches	UTP-J0906A	UTP-J1806A
	3-8 Branches	UTP-J0908A	UTP-J1808A
Total cooling capacity of indoor unit (kW)		28.0 or less	28.1 to 56.0

Outdoor unit branch kit

Model name		UTP-CX567A (for V-IV)	UTP-DX567A (for VR-IV)
Number of outdoor units	2 outdoor units	1	
	3 outdoor units	2	

EV kit

Model name	UTR-EV09XB	UTR-EV14XB		UTR-EV09XC	UTR-EV14XC
Application model	ASYE004GCEH ASYE007GCEH ASYE009GCEH	AGYE004GCEH AGYE007GCEH AGYE009GCEH	ASYE012GCEH ASYE014GCEH	AGYE012GCEH AGYE014GCEH	ASYE004HCAH ASYE005HCAH ASYE007HCAH ASYE009HCAH	ASYE012HCAH ASYE014HCAH

RB unit

Type		Single type			Multi-split type		
Model name		UTP-RX01AH	UTP-RX01BH	UTP-RX01CH	UTP-RX04BH	UTP-RX08AH	UTP-RX12AH
Power source	V/Ø/Hz	230/1/50					
Input power	W	17	24	31	96	136	204
Number of branches		1	1	1	4	8	12
Maximum capacity of connectable indoor units (Q)	kW	Q ≦ 8.0	Q ≦ 18.0	Q ≦ 28.0	Q ≦ 56.1*[1]	Q ≦ 72.0	Q ≦ 95.0
Maximum capacity of connectable indoor units per branch (Q)	kW	Q ≦ 8.0	Q ≦ 18.0	Q ≦ 28.0	Q ≦ 18.0	Q ≦ 8.0	Q ≦ 8.0
Maximum Connectable Indoor Units per Branch		3	8	8	8	7	7
Dimensions (H × W × D)	mm	198 × 298 × 268			260 × 658 × 428	298 × 660 × 618	298 × 990 × 618

*1: When two RB units are connected in series (8 branches in total), the maximum capacity of the connectable indoor units is up to 56.0 kW.

Shut off valve kit

Model name		UTP-GX027A	UTP-GX060A
Power source	V/Ø/Hz	230/1/50	230/1/50
Input power	W	24	24
Number of branches		1	1
Maximum number of connectable Expansion kit		4	4
Maximum capacity of connectable indoor units (Q)	kW	Q ≦ 8.0	Q ≦ 18.0
Maximum capacity of Connectable Indoor Units per Branch (Q)	kW	Q ≦ 8.0	Q ≦ 18.0
Dimensions (H × W × D)	mm	250 × 540 × 267	250 × 540 × 267

CONTROL SYSTEM
& OPTIONAL PARTS