

# **Control system overview**





\*1. BMS/BAS: Building Management System / Building Automation System \*2. USB Adaptor is U10 USB Network Interface of Echelon® Corporation.

# **Comparison Table of Remotes & Controllers**

		REMOTES					CONTROLLERS				
											<u>.</u>
ltem		Touch Remote Control	Wired Remote Control	Simple Remote Control	Simple Remote Control*1	Wireless Remote Control	Wi-fi Interface Module	Central Controller	Touch Panel Controller	System Controller Lite Software	System Controller Software
Mode	l name	UTY-RNRUZ1	UTY-RNKU	UTY-RSRY	UTY-RHRY	UTY-LNHU	FJ-RC-WIFI-1NA	UTY-DCGY	UTY-DTGYZ1	UTY-ALGXZ1	UTY-APGXZ1
Max.	controllable remote control groups	1	1	1	1	1	1	100	400	400	1600
Max.	controllable indoor units	16	16	16	16	16	1	100	400	400	1600
Max.	controllable groups	_	_	_	_	16	_	16	100	400	1600
	On / Off	*3		•	•		•	•	•	•	
	Operation mode setting				_				•		
	Fan speed setting						•	•	•		•
Ę	Room temp, setting										
ctio	Room temp, set point limitation		-								
Ĩ	Tost operation		_							-	
10.							•	•	•	_	_
ontr	Up/down air direction riap setting	•	•	•	•	•	•	•	•	•	•
g cc	Right/left air direction riap setting	•	•	-	-	•	•	•	•	•	•
Ŀ.	Individual louver control	•	-	-	-	-	-	-	•	-	-
tio	Group setting	-	-	-	-	-	-	•	•	•	•
ipu	RC prohibition	-	-	-	-	-	-	•	•	•	•
L C0	Anti freeze setting	-	-	-	-	-	•	•	•	•	•
Ai	Set temp. auto return	•	•	-	-	-	•	-	_	_	_
	Away setting	•	-	-	-	-	•	-	-	-	-
	Economy mode setting	•	•	-	-	•	•	•	•	•	•
	Occupancy sensor control	-	-	-	-	-	-	-	-	•	•
	Error	•	•	•	•	-	•	•	•	•	•
	Defrosting	•	•	•	•	-	•	•	•	•	•
	Current time	•	•	-	-	•	•	•	•	•	•
	Day of week	•	•	-	-	-	-	-	•	•	•
	R.C. prohibition	•	•	•	•	-	-	•	•	•	•
_	Cooling/heating priority	•	•	•	•	-	•	•	•	•	•
ola)	Address display	•	•	•	•	-	-	•	•	•	•
Disp	Room temp	•	-	•	•	-	•	-	-	-	-
	Multi language	•	-	-	-	-	•	•	•	•	•
	Daylight Saving Time setting (Summer)	•	-	-	-	-	-	•	•	•	•
	Time zone setting	-	-	-	-	-	-	-	٠	_	-
	Name registration	•	-	-	-	-	•	٠	٠	•	•
	Backlight	•	-	•	•	-	•	٠	٠	-	_
	2D floor layout / 3D building display	-	-	-	-	-	-	-	-	-	۲
	Period	Week	Week	-	-	-	Unlimited	Week	Year	Year	Year
	Schedule timer On/Off, Temp, mode, times per day	8*3*4	4	-	_	-	Unlimited	20	20	144	144
	On/off timer	-	٠	-	-	•	•	-	_	_	-
ner	Sleep timer	-	-	-	-	•	•	-	_	_	_
Ë	Program timer	-	-	-	-	•	•	-	-	-	-
	Auto off timer	•	-	-	-	-	•	-	-	_	-
	Day off	•	٠	-	-	-	•	•	•	٠	•
	Min. unit of timer setting (Minutes)	10 · 30	30	-	-	5	-	10	10	10	10
	Status monitoring system	-	-	-	-	-	-	•	•	•	•
	Electricity charge apportionment	-	-	-	-	-	-	_	_	0	•
_	Error history	•	•	_	_	_	_	•	•	•	•
htrd	Emergency stop	-	-	-	-	-	-	•*2	•*2	_	-
ē	Remote management	-	_	-	_	_	•	-	-	0	•
	Energy saving management	-	_	-	_	_	-	-	-	0	0
	Low noise mode	_	-	-	-	-	_	_	•	_	_
يد	E-mail notification for malfunction	_	-	-	_	_	_	-	_	•	•
гпе		•					•	•	•	•	•
5 Inte	Key lock	Child lock	-	-	_	-	Password setting	Password setting	Password setting	Password setting	Password setting
BMS	Third party Modbus communication	-	-	-	-	-	-	-	-	0	0

\*1 "Operation mode" setting is not available for this model. \*2 This function is available only through external input. control. 52 \*3 On / Off (Occupied / Unoccupied) \*4 Mode deleted

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

# Touch Remote Control (2-WIRE): UTY-RNRUZ1

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

- Built-in temperature sensor
- Built-in weekly/Daily timer(ON/OFF(Occupied/Unoccupied),Temp.)
- Backlight enables easy operation in a darkened room
- Room temperature display
- Administrator temperature set point limitation
- Corresponds to 12 different languages (English, Chinese, French, German, Spanish, Russian, Polish, Italian, Greek, Portuguese, Turkish and Dutch)

### HIGH PERFORMANCE AND COMPACT SIZE

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



#### ACCURATE AND COMFORTABLE CONTROL

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



#### BACKLIGHT

- Backlight enables easy operation in a dark room.
- Backlight display time of 30 or 60 seconds can be set.







### VARIOUS ENERGY SAVING SETTINGS

#### Auto OFF Timer

- The indoor unit automatically turns off after a set time has passed.
- The time interval for which auto off works can be set.

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



#### 2 schedules Weekly Timer

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



#### Optimum start function

• Provides configurable operation start (Boost) to get space to temperature before scheduled time.



Set Temperature Auto Return

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

#### Set Temperature Upper and Lower Limit Setting

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







### UTY-RNRUZ1 cont'd

#### ADDITIONAL FUNCTIONS

#### Away mode

• Cooling / Heating is automatically started when the room temperature reaches a setting temperature even if the indoor unit is off.



# for regions that uses it.



remote control screen. This makes it easy to identify the indoor unit.

## SIMPLIFIED INSTALLATION

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

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



#### Auto Address Setting/Setting Position Notification

• Reduce errors and install time compared with manual addressing



## EASY MAINTENANCE

#### **Error History Display**

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

### SPECIFICATIONS

Model name	UTY-RNRUZ1
Power source	DC 12V
Input Power	4-3/4 × 4-3/4 × 13/16 (120 × 120 × 20.4)
Airflow Rate	8 (220)
DC12V/terrorelited builter terde councils	

DC12V is supplied by the indoor unit

# Wired Remote Control

# (3-WIRE) UTY-RNKU

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

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

# ACCURATE AND COMFORTABLE

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

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

Example of changing sensor:



### **BUILT-IN TIMERS**

A weekly timer with up to four different On/Off and temperature settings per day

Aax. controllable

6

#### SIMPLE INSTALLATION

Designed for flush mount or usage of standard electric box.



#### UTY-RHRY

[788

Without

operation mode

# Simple Remote Control

# (2-WIRE) UTY-RSRY / UTY-RHRY (WITHOUT OPERATION MODE)

Compact wired remote control unit provides access to basic functions

- Built-in temperature sensor
- Backlit display
- Equipped with Remote control prohibition
- Suitable for hotels, classrooms or offices as it is easily operated with no complex functions.

## VERTICAL LOUVER CONTROL

Offers vertical louver movement control for ducted and cassette units.



# ROOM TEMPERATURE SET POINT LIMITATION

The Simple Remote Control can manage set point limitation in small buildings without the central controller requirement.



Max. controllable 16



#### SPECIFICATIONS

Model name	UTY-RNKU	UTY-RSRY	UTY-RHRY
Power Supply	DC 12V	DC 12V	DC 12V
Dimensions (H x W x D) (in.(mm))	4-3/4 × 4-3/4 × 11/16 (120 × 120 × 18)	4-3/4 × 2-15/16 × 9/16 (120 × 75 × 14)	4-3/4 × 2-15/16 × 9/16 (120 × 75 × 14)
Weight (oz.(g))	6 (160)	4 (120)	4 (120)
DC12V/: It II II II			

DC12V is supplied by the indoor unit.



VRF



70.0

With

operation mode

I TEMP

[788 FAN



# Wireless Remote Control

# UTY-LNHU

Simple and sophisticated operations with a choice of 4 daily timers • A single controller controls up to 16 indoor units.

### ACCURATE AND COMFORTABLE

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

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

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

# EASY INSTALLATION AND OPERATION

- Code selector switch prevents indoor unit mix-up. (Up to 4 codes can be set.)
- Wide and precise transmitting range.
- IR Built-in receiver is standard in compact cassette, ceiling/floor, and wall mounted indoor units.



### ADDRESS SETTING

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



### IR RECEIVER UNIT : UTB-YWC

Necessary to control all duct types by Wireless Remote Control



## IR RECEIVER UNIT : UTY-LRHYB1

Cassette type indoor unit can be controlled with Wireless Remote Control



# **REMOTE CONTROLS**

# Wi-fi Interface Module

# FJ-RC-WIFI-1NA

# For:

Cassettes Ducted Units Ceiling Mount Floor/Ceiling Mount (Universal) Wall Mounted

# WI-FI INTERFACE FOR VRF Control your fujitsu airstage VRF indoor unit from anywhere

# HOW DOES IT WORK?

- The indoor units are controlled from a webpage or using an iOS or Android APP in a very intuitive way.
- A wired device installed near each unit controls its operation and communicates over Wi-fi to the Internet router.
- A server in the cloud manages the whole process.







# Remotely manage your VRF indoor unit using a smartphone, tablet or PC via the Internet.

## FEATURES

- Manages the VRF indoor unit using the iOS or Android app.
- Programs the indoor unit operation schedule.
- Offers access to several indoor unit settings including Mode, temperature set point, and much more.
- Offers early startup that brings the space to the desired set point before arriving.
- Also, offers delayed setback after leaving.
- Provides instant alarm notifications.
- Error reporting, available in several languages



### FJ-RC-WIFI-1NA cont'd COMPATIBILITY FOR WIRED WI-FI MODULE

Туре	Indoor Unit Model	Required Parts		
Compact Wall Mounted (ASUA)	7, 9, 12, 14RLAV	Plug model:		
	7, 9, 12, 14TLAV	K9707476019*		
Wall Mousted (ASUR)	18, 24RLAV	Plub model:		
	18, 24TLAV	K9709223017*		
Compact Cascotta (AUUA)	7, 9, 12, 14, 18, 24RLAV			
	7, 9, 12, 14, 18, 24TLAV			
	18, 24, 30, 36RLAV			
	18, 24, 30, 36TLAV			
Floor/Coiling (ARUA)	12, 14, 18, 24RLAV	-		
	12, 14, 18, 24TLAV			
(ciling (ADUA)	30, 36RLAV			
Celling (ADUA)	30, 36TLAV	Built-in Low voltage		
	7, 9, 12, 14, 18RLAV	terminal block		
	7, 9, 12, 14, 18TLAV			
Madium Static Draceure Duck (ADUM)	24, 30, 36RLAV			
Medium Static Pressure Duct (ARUM)	24, 30, 36TLAV			
Lich Chabia Dessaura Duch (ADUU)	36, 48, 60RLAV			
	36, 48, 60, 72, 96TLAV			
Vertical Air Handler (ARUV)	12, 18, 24, 30, 36, 48, 60TLAV			

\*Plug included with indoor wall mount units

## **TECHNICAL FEATURES**

Enclosure UL Approval	ABS (UL 94HB)			
Dimensions	2-3/4 x 4-1/4 x 1-1/8 (70 x 108 x 28)			
Weight	0.17 lbs (80g)			
Color	White			
Power Supply 12V, 55mA Can be powered through indoor unit.				
Mounting	ting Wall			
LED indicators	1 x Device status			
Operating Temperature 32°F ~ 104°F (0°C ~ 40°C)				
Operating humidity <93% HR, no condensation				
RoHS conformity	Compliant with RoHS directive (2002/95/CE).			
Certifications	CE confirmity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) • EN 60950-1 • EN 301489-1 v1.8.1 • EN 301489-17 v2.1.1			

# Touch Panel Controller with Internet

High visibility and easy operation via high resolution 7.5 inch TFT-LCD touch panel screen

- Controls up to 400 indoor units\*
- Provides Internet/LAN remote control and operation
- Indoor units can be grouped for batch monitoring and setting
- Schedules are programmable with up to 20 settings per day
- Easy-to-understand Graphical User Interface (GUI)
- Data can be transfered to USB for further analysis
- Does not require a 4X4 electric box. Mounts flush to the wall.
- Large-sized 7.5-inch no-glare TFT color touch screen
- Selectable 2 display types (Icon / List) in monitoring mode
- Supports 7 different-languages , English, Chinese, French, German, Spanish, Russian, Polish.

#### **FUNCTIONS**



### **REMOTE MONITORING AND OPERATION FUNCTIONS**

- Internet/LAN remote monitoring and control of the VRF system using a web browser. (Operation status monitoring, Operation mode setting, and Error history display)
- Automatically emails errors.



#### **EASY OPERATION**

• Easy-to-understand icon-driven Graphical User Interface (GUI)



- Operation can be selected using your finger or the dedicated touch pen by pressing the appropriate on-screen icon
- Up-to-date status display
- Background color identifies current control operation; Blue for monitoring, green for operational control

#### **EASY MAINTENANCE**

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





\* For Heat Recovery network systems the limit is 320 indoor units, consult the D&T manual for proper wiring and the use of signal amplifiers.

Max. controllable

400

# **OPTIONAL: ELECTRICITY CHARGE APPORTIONMENT**

Electricity Charge Apportionment optional add-on USB drive can be added to help users be energy aware and help building owners apply sub-tenant billing.

• UTY-PTGXA must be ordered separately

# UTY-DTGYZ1 cont'd UP TO 400 INDOOR UNITS CAN BE CONTROLLED



#### FUNCTION

- Up to 400 indoor units can be controlled
- Multiple indoor units can be grouped and controlled
- Schedule timer function is standard (20 patterns per day)
- Emergency stop function (through the external input control)
- Temperature upper and lower limit setting



Individual control



Schedule control



Flexible grouping



Indoor units operation monitoring

## AUTOMATIC CLOCK ADJUSTMENT

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



## SPECIFICATIONS

VERSATIL	ITY
VERSAIIL	IIY

- Emergency stop function: Air conditioner can be turned off through the external input control
- The stored data can be transferred to USB port
- CSV format data edited by PC can be imported to Touch Panel Controller.



## EASY INSTALLATION

- Touch Panel Controller does not require mounting an additional power supply.
- No additional components are required for installation.



Power Supply	100-240V 50/60Hz, Single phase
Dimensions (H x W x D) (in.(mm))	10-1/4 × 9-11/16 × 2-1/8 (260 × 246 × 54)
Weight (lbs.(g))	5 (2150)
Interface	Transmission / LAN / USB / EXT IN / EXT OUT / Reset SW
	* *

# **Central Controller UTY-DCGY**

Central Controller fits small- and medium-sized buildings and tenants.

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

#### SYSTEM OVERVIEW

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



VRF



Group : Hallway

• Weekly timer

• Error history

Max. controllable



**FUNCTIONS** 

• Diverse control of indoor units

• Automatic clock adjustment

## EASY INSTALLATION

- The control panel and power supply unit can be installed separately.
- For flexibility in installation, the control panel can be built into the wall or flush mounted.

#### Setting pattern 1

#### Setting pattern 2



Control panel + Power supply unit



#### **SPECIFICATIONS**

	Control Panel	Power Supply Unit
Power Supply	DC 5V	100-240V, 50-60Hz, Single phase
Dimensions (H x W x D) (in.(mm))	4-3/4 × 6-3/8 × 1 (120 × 162 × 25.7)	3-7/8 × 5-5/16 × 1-9/16 (99 × 135 × 39.2)
Weight (oz.(g))	11 (308)	13 (355)
Packing List	Control Panel / Power Supply Unit / Connecting cable, etc.	

Max. controllable

400 utdoor unit

Max. controllable



# System Controller

UTY-APGXZ1 Software

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

- Up to a maximum of 4 VRF network systems, 1600 indoor units, and 400 outdoor controlled.
- In addition to air conditioning precision control function, central remote control, electricity charge calculation, schedule management, and energy saving functions are strengthened and building manager and owner needs are met.

# System Controller Lite

# UTY-ALGXZ1 (Software)

System Controller Lite is designed for small and medium scale buildings.

- Controls up to a maximum of 1 VRF network system, 400 indoor units, and 100 outdoor units.
- In addition to air conditioning precision control function, a variety of management software add-ons are available as options to give customers a wide range of choice.

# USER FRIENDLY VIEW AND OPERATION

- Click & Operate : The building can be viewed and controlled in a 3D click-able perspective view. Four different views are available: site, building, floor, or list view.
- Freely define groups for batched control : Indoor units can be freely grouped for simple batched control from a BMS tree menu. Grouping by hierarchal structure, such as by section, division or department is possible.







### **3RD PARTY DEVICES CONNECTED BY MODBUS CAN BE CONTROLLED**

When Modbus Adaptor (locally purchased) is connected to system controller PC, the devices connected to the Modbus can be centrally controlled.



#### DIVERSE OPERATION MANAGEMENT & DATA MANAGEMENT

#### Schedule management

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

#### Diverse control of indoor unit

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

#### Remote control prohibition

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

#### Automatic clock adjustment

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

#### ELECTRICITY CHARGE APPORTIONMENT

#### Electricity charge apportionment calculation framework

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

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

#### Error display & E-mail notification

Errors provide popup messages, audible sound and e-mails. Errors for the past year are logged and can be reviewed later.

#### Database import/export

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

#### Operating & control record

Displays the history of operation status and control.

# System Configuration Example

Standard for System Controller Option for System Controller Lite UTY-PLGXA1



Standard for System Controller

Option for System Controller Lite UTY-PLGXX2





# System Controller and System Controller Light (continued) Software

### **REMOTE MANAGEMENT**

STANDARD FOR SYSTEM CONTROLLER UTY-PEGXZ1, OPTION FOR SYSTEM CONTROLLER LITE UTY-PLGXR2

System Controller may be used on site or remotely over various networks for remote central control. System Controller requires 2 software programs working together. VRF Controller runs on site and communicates with VRF system. VRF Explorer runs remotely and provides user interface and communicates with the VRF Controller. VRF Controller and VRF Explorer programs may run on a single PC or on different PCs. By using VRF Explorer software, one PC can perform central control of 10 VRF system sites with max. 20 buildings per site.





### ENERGY SAVING MANAGEMENT

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

Energy saving graph data: This graph compares the electricity consumption with the previous month and previous year to make it easy to analyze the energy saving effect.



Energy Saving Management Main Screen

### INDOOR UNIT ROTATION OPERATION

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



Indoor unit rotation screen

#### OPTION FOR SYSTEM CONTROLLER UTY-PEGXZ1 , OPTION FOR SYSTEM CONTROLLER LITE UTY-PLGXR2

Headquarters Management Center

#### PEAK CUT OPERATION

To control power consumption and load shedding, the system can be programmed to change the indoor unit set temperature, turn the indoor unit thermostat off, or take other measures to carefully control the amount of power consumed while maintaining or



Shows change in power consumption by time

consumed while maintaining comfort.

#### OUTDOOR UNIT CAPACITY SAVE

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



# **CENTRAL CONTROLLERS**

#### FUNCTIONS SUMMARY

				System controller		System controller lite			
Function		Туре	UTY-APGXZ1	Option UTY-PEGXZ1	UTY-ALGXZ1	Option UTY-PLGXR2	Option UTY-PLGXA2	Option UTY-PLGXE2	Option UTY-PLGXX2
	Max. VRF networks	supported	4	-	1	-	-	-	-
System	Max. indoor unit / remote controller groups per VRF network		400	-	400	-	-	-	-
specification	Max. outdoor units per System controller		100	-	100	-	-	-	-
specification	Max. indoor units / r	emote controller groups per System controller	1600	-	400	-	-	-	-
	Max. outdoor units p	per System controller	400	-	100	-	-	-	-
	Multi site display		10	-	10	-	-	-	-
	Number of building	/ 1 site	20	-	-	-	-	-	-
	Number of floor per	1 site	200	-	-	-	-	-	-
Site	Number of floor per	1 building	50	-	-	-	-	-	-
supervision	3D graphical layout	view		-	-	-	-	-	-
Supervision	2D graphical layout	view	•	-	-	-	-	-	-
	List display			-	•	-	-	-	-
	Tree display			-	•	-	-	-	-
	Group display		•	-	•	-	-	-	-
Error	Error notification			-	•	-	-	-	-
management	Audible alarm		•	-	•	-	-	-	-
	Error e-mail notifica	tion	•	-	•	-	-	-	-
	Error history			-	•	-	-	-	-
History	Operation history			-	•	-	-	-	-
	Control history	0-1055		-	•	-	-	-	-
				-		-	-	-	-
		Uperation mode		-	•	-	-	-	-
		Fan speed		-		-	-	-	-
	In dividual	Air flow direction		-		-	-	-	
	Individual	Francow mode				-	-	-	
	control	Beem temperature set point limitation		-		-	-	-	-
Operation		Tost operation					-	-	
control		Aptifração					-	_	_
		Antificeze		-		-	-	-	-
		Demote control contribution activity			•				
	Individual	Remote control prohibition setting		-	•	-	-	-	-
	management	Filter sign reset		_		-	-	-	-
	-	Maman and and a set		-		-	-	-	-
	Other	Dattern eneration		-		-	-	-	-
	Appual Schodula	Pattern operation		-		-	-	-	
	Annual Schedule					-	-	-	
	Op (off por day)		72	-	72	-	-	-	-
Schodulo			504		504		-	-	
Juleutie	Day off		504		504		_		_
	Min unit of timor co	tting (Minutos)	10	_	10	-	-	-	-
	Low poise mode We	ekly schedule	10	-	10	-	_	-	-
	Remote monitoring	ckly schedule		_	-		_	_	_
Remote	Remote operation of	ontrol		_	_		-	-	-
managemment	Remote function set	tina		-	-		-	-	-
managemment	Web Remote Control	llor		-	_		_		
	Apportionment char	ne/hill calculation		_	_	-		_	-
<b>F</b> 1	Tenant (block) settin			_	_	_		_	_
Electricity	Common facilities a	nontionment setting		-	-	-		-	-
charge	Rated power consum	notion allotment setting		-	-	-		-	-
apportionment	Individual calculation	in at cooling and heating	-	•*	_	_	•	-	_
	Electricity meter sur	norted	-		-	_		-	-
	Indoor unit rotation	ported	-		-	-	-	•	-
	Peak cut control		-	•	_	_	-	•	-
Energy	Outdoor unit capacit	tv save	-		_	-	-		-
saving	Record of energy say	ving operation	-	•	_	-	-	•	-
management	Energy saving inform	nation	-		-	-	-		-
management	Power consumption	monitor	-	•	-	-	-	•	-
	Electricity meter sur	ported				-	-		-
External Device	Monitor		•	-	-	-	-	-	•
Control	Control			-	_	-	-	-	
control	Database import/ov	port		_		-	_	_	-
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others	Multi Janguago	astinent	7   20 00 000		7  2001/2005	-	_		
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Available. - : Not available.
 \*:Power calculation application software is necessary, please contact the local Fujitsu representative.

#### PERSONAL COMPUTER SYSTEM REQUIREMENTS

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

•Echelon<sup>®</sup> U10 USB Network Interface (Required for each VRF Network.)

	For System	controller		F	or System controller Lite	e		_
Parking list		Option	System Controller	Option				_
· ocking list	System controller	Energy manager	Lite	Remote access	Electricity charge apportionment	Energy saving	Central 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	65

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



# ACCESSORIES

# Network Convertor UTY-VTGX (DC power supply)

Network Convertors add Fujitsu mini-split control to the VRF communication network.



UTY-VTGX

DC power supply

### **INSTALLATION EXAMPLE**

• The convertors are required when connecting single split units to the VRF communication network system. Administrators can manage the VRF system including single split by VRF central controller.

Single split with VRF



#### \* One controller can be connected to DC power supply type.

# Signal Amplifier

# UTY-VSGXZ1

- Transmission Line length can be extended up to 11,811ft. (3,600m) with multiple Signal Amplifiers.
- Up to 8 signal amplifiers can be installed in a single VRF communication network system.
- A signal amplifier is required,

(1) When the total wiring length of the transmission line exceeds 1,640ft. (500m).(2) When the total number of units on the transmission line exceeds 64.

## INSTALLATION EXAMPLE



### SPECIFICATIONS

Model name	UTY-VSGXZ1
Power Supply	208-240V 50/60Hz, Single phase
Input power (W)	4.5
Dimensions (H x W x D) (in.(mm))	2-5/8 × 11-5/6 × 8-5/16 (67 × 288 × 211)
Weight (lbs.oz.(g))	3lbs. (1,500)

#### SPECIFICATIONS Model name

Power Supply	polar 3-wire DC12V	non-polar 2-wire DC12V			
Input power (W)	Max. 2				
Dimensions (H x W x D) (in.(mm))	4-5/8 × 5-1/2 × 1-9/16 (117 × 140 × 40)				
Weight (lbs.oz.(g))	9 oz. (250)				



# **External Switch Controller**

# **UTY-TERX**

Air conditioner switching can be controlled by connecting other sensor switches

- In combination with a field supply Card-Key Switch or other sensor, the External Switch Controller allows control of the ON / OFF, Room temperature, Fan speed and Master control functions. This makes this product suitable for installations such as hotel rooms.
- Card-key or other sensor switches are available as a field supplied parts.

#### **SPECIFICATIONS**

Model name	UTY-TERX
Power Supply	DC6.5 - 16V
Dimensions (H x W x D) (in.(mm))	1-11/16 × 5-1/2 × 4-5/8 (43 × 140 × 117)
Weight (lbs.oz.(g))	9 oz. (250)
DC12V is supplied by the indoor unit.	

supp



#### The set temperature can be specified for cooling and heating individually

Occupancy sensors can be used to setback temperature and fan speed when room is unoccupied. These setbacks are reverted when people come back to the room.



#### **FUNCTIONS**

On/Off	•	Fan speed setting	•
Off	•	Operation mode setting	•
Room temperature setting	•	Prohibition setting	•

### SYSTEM OVERVIEW



# **BMS COMMUNICATION OPTIONS**

'RF network system

32

Max. controllable



# BACnet<sup>®</sup> Gateway (Hardware)

# UTY-VBGX

- BACnet<sup>®</sup> Gateway connects a VRF system to a BMS via BACnet<sup>®</sup> IP.
- A maximum of 128 indoor units and 32 refrigerant systems can be connected to a single BACnet<sup>®</sup> Gateway.
- Compatible with BACnet<sup>®</sup> (ANSI / ASHRAE-135-2012) application specific controller (B-ASC).
- Compatible with BACnet®/IP over Ethernet.

#### **INSTALLATION EXAMPLE**



#### SPECIFICATIONS

Model name	UTY-VBGX	Model name	UTY-VBGX
Number of controllable indoor units	128	Power supply	208-240V 50/60Hz, single phase
Number of controllable refrigerant system	32	Input power (W)	4
Number of controllable VRF network	1	Dimensions (H x W x D) (in.(mm))	10-1/4 × 2-5/16 × 5-11/16 (260 × 59 × 145)
Number of connectable Gateways / one VRF network	4	Weight (lbs.oz.(g))	39oz (6100)

# **BACnet**<sup>®</sup> Gateway

# UTY-ABGXZ1 Software

• Connect VRF network system to BMS via BACnet IP, a global standard for open networks.

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

# PERSONAL COMPUTER SYSTEM REQUIREMENTS

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





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69

# BMS COMMUNICATION OPTIONS

# Network Convertor for LONWORKS®

# UTY-VLGX

- Connects VRF network system to a BMS network via LONWORKS® open network.
- The UTY-VLGX permits central monitoring and control of a VRF network system from a BMS through a LONWORKS<sup>®</sup> interface.
- Up to 128 Indoor units can be connected to one Network Convertor for LONWORKS®

## **INSTALLATION EXAMPLE**



# SPECIFICATIONS

Model name	UTY-VLGX
Power Supply	208-240V 50/60Hz, Single phase
Input power (W)	4.5
Dimensions (H x W x D) (in.(mm))	2-5/8 × 11-5/16 × 8-5/16 (67 × 288 × 211)
Weight (lbs.oz.(g))	3lbs. (1,500)

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

TRANSMISSION SPECIFICATIONS (BMS SIDE)

Max. controllable 9 units to one BMS

Max. controllable 100 outdoor units

Max. controllable

128 indoor uni Units to BMS Max. controllable

100 utdoor units

Max. controllable 128 indoor units

# **MODBUS®** Convertor

# UTY-VMGX

VRF System can be integrated with the Building management system supported by MODBUS® RTU.

# INSTALLATION EXAMPLE



Power Supply	AC220/240V 50/60Hz AC208/230V 60Hz
Input power (W)	Max. 3
Dimensions (H x W x D) (in.(mm))	9-1/4 × 4-3/4 × 1-3/4 (235 × 120 × 45)
Weight (lbs.oz.(g))	39 oz. (1,100)

# **SERVICE & MONITORING**



# Service Tool

# UTY-ASGXZ1 Software

Extensive monitoring and analysis functions for installation and maintenance

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

### AUTOMATIC OPERATION CHECK FOR **REFRIGERATION CYCLE**

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



[Note] Use only as a guide and judge for yourself finally

## **REMOTE TECHNICAL SUPPORT & MAINTENANCE**

On-site check screen can be shared with the skilled person in a remote location. When visiting for troubleshooting on-site, operation status can be shared in real time and get assistance easily.

Online chat function helps to support on-site staff.



### PERSONAL COMPUTER SYSTEM REQUIREMENTS

Operating system		Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1     Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)     Microsoft® Windows® 10 Pro (32-bit or 64-bit)				
CPU		1 GHz or higher				
Memory		<ul> <li>1 GB or more (for Windows Vista®, Windows® 7 [32-bit], Windows® 8.1 [32-bit], and Windows® 10 [32-bit])</li> <li>2 GB or more (for Windows® 7 [64-bit], Windows® 8.1 [64-bit], and Windows® 10 [64-bit])</li> </ul>				
HDD		OB or more of free space				
Display 1366 x 768 or higher resolution		1366 x 768 or higher resolution				
Interface		<ul> <li>2 USB ports</li> <li>1 USB port is required for software protection key connection</li> <li>1 USB port is required for Echelon® U10 USB Network Interface</li> </ul>				
Software		Internet Explorer® 11 or Microsoft Edge / Adobe® Reader® 9.0 or later				
Packing List	Quantity	Application				
WHITE-USB-KEY (Software protection key)		Software protection key to be connected to USB port on the Service Tool-installed PC. These products runs only on a PC with WibuKey.				

Personal computer that satisfies the following system requirements
 Echelon® U10 USB Network Interface – TP/FT-10 Channel (Model number: 75010R) (Required for each VRF Network.)



\* The saved data can be displayed offline. However, the data saved by the following model cannot be displayed. • UTR-YSTB/UTR-YSTC (Service Tool)

• UTR-YMSA (Web Monitoring Tool)



### MULTIPLE TREND GRAPH DISPLAY AND COMPARISON

- Multiple graphs can be displayed in Service Tool depending on the situation.
- Up tp two offline data files can be viewed and compared simultaneously



#### FUNCTIONS

#### 1) System List

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

#### 2) Equipment Detail (Diagram)

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

#### 3) Equipment Detail (List)

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

#### 4) Operation History

The indoor units or outdoor unit operation history can be recorded. The displayed operation history can be printed out and saved to a CSV file.

#### 5) Error History

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

#### 6) Remote File Download

Operation and error history can be downloaded. User can choose which data download by specifying the system, unit and time frame.

#### 7) Commissioning Tool

During a test run, the outdoor unit/indoor unit sensor data can be saved for completing the commissioning report. After the end of test running, this data can be exported in CSV file format.

#### 8) Network Topology Analyzer

A list of units connected to the VRF system network is displayed in network segments in tree form.

#### 9) Remote Setting

Setting of the indoor unit can be performed remotely.

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#### 10) System Time Setting

Time of day setting, for all controllers in a system, can be performed simultaneously.

#### 11) Software Version

The software version of units are acquired and displayed.

#### 12) Central Release

Limitations on individual indoor units can be released from the central controller (remote controller limit, temperature limit).

#### 13) Model Name Writer

A custom model name can be given for an indoor unit.

#### 14) Error Memory Reader

When an error occurs in an indoor unit, the system records the operation data before the error and saves to a CSV file.

Note: To perform "Error Memory Reading", the Service Tool must be connected directly to the corresponding outdoor unit. Refer to the Operation Manual of the Service Tool for detail.

#### 15) Time Guard Information

Data for determining maintenance schedule (integrated time for compressor, fan, etc.) for the indoor and outdoor units can be output to a CSV file.



# Web Monitoring Tool

#### UTY-AMGXZ1 ( Software

Product features

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

#### WEB MONITORING SYSTEM



#### SUPPORT 4 VRF NETWORK SYSTEMS

USB adaptor (max. 4 adaptors per PC) permit, monitoring of up to 1,600 indoor units.

Suitable for large-scale buildings or hotels.



## PERSONAL COMPUTER SYSTEM REQUIREMENTS

Operating system		<ul> <li>Microsoft® Windows® 7 Professional (32-bit or 64-bit) SP1</li> <li>Microsoft® Windows® 8.1 Pro (32-bit or 64-bit)</li> <li>Microsoft® Windows® 10 Pro (32-bit or 64-bit)</li> </ul>				
CPU		1 GHz or higher				
Memory		<ul> <li>1 GB or more (for Windows Vista<sup>®</sup>, Windows<sup>®</sup> 7 [32-bit], Windows<sup>®</sup> 8.1 [32-bit], and Windows<sup>®</sup> 10 [32-bit])</li> <li>2 GB or more (for Windows<sup>®</sup> 7 [64-bit], Windows<sup>®</sup> 8.1 [64-bit], and Windows<sup>®</sup> 10 [64-bit])</li> </ul>				
HDD		40 GB or more of free space				
Display 1366 x 768 or higher resolution		1366 x 768 or higher resolution				
Interface		<ul> <li>USB port (for 10 USB Network Interface Max.4, Software protection key)</li> <li>Either of the following interface is required for remote connection: <ul> <li>Internet using LAN: Ethement port is required</li> </ul> </li> </ul>				
Software		Internet Explorer® 11 or Microsoft Edge / Adobe® Reader® 9.0 or later				
Packing list	Quantity	Application				
WHITE-USB-KEY (Software protection key)	1	Software protection key to be connected to USB port on the Service Tool-installed PC. These products runs only on a PC with WibuKey.				
•Personal computer that sat	isfies the fol	lowing system requirements				

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



# **Design Simulator**

### EASY EQUIPMENT SELECTION, COMPLETE SELECTION OUTPUT, RELIABLE PROJECT MANAGEMENT

Design Simulator makes it easy to design and select equipment for complex building HVAC systems. The software output contains all important design data including: Equipment Schedule, Piping and Wiring Layout, etc. (all of the documentation needed to estimate a project.) Design Simulator simplifies the design process. To design a system, just select the indoor unit types for each system, and the software will automatically select the outdoor unit and create the piping and wiring diagram. Design Simulator also checks all of the equipment information to ensure proper installation.







Using the Drag & Drop function, connect the indoor unit to the appropriate outdoor unit.





Step

#### Piping Length / Piping Diagram

Piping diagram is created automatically. As piping lengths are entered, system automatically calculates refrigerant charge.

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Automatically creates the wiring diagram. Simple grouping functions create a custom wiring diagram for the project.

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Choose additional devices to meet the needs of the project.



Design Simulator creates a project output with all of the project schedules and schematic drawings.

**Report Output** 



# Software can be customized for any geographic location.

- Units (US conventional / Metric)
- Language Setting
- Custom Database Function
- Output Settings



#### SOFTWARE REQUIREMENTS

Software	Design Simulator	
Operating System	Microsoft Windows Vista / 7 / 8	
System Requirements		CPU: Intel® Core™ i3 Processor 2GHz or higher
	Hardware	Memory: 2GB or more (Windows® XP, Windows Vista®, Windows® 7 32-bit)
		4GB or more (Windows <sup>®</sup> 7 64-bit), HDD: 10GB or more of free space
	Display	1024 x 768 dots or more
		Internet Explorer 7.0 or later
	Software	Acrobat Reader 9.0 or later
		Microsoft Word 2003 / 2007 / 2010



# **Building Information Modeling (BIM)**

Fujitsu provides the Building Information Modeling (BIM) object models and contents for our VRF system to the architect, designer and contractor using Autodesk<sup>®</sup> Revit<sup>®</sup> technology.

#### **REQUIRED SOFTWARE**

#### Autodesk<sup>®</sup> Revit<sup>®</sup> series software Autodesk<sup>®</sup> Revit<sup>®</sup> Architecture

RFA

Data format

- Autodesk<sup>®</sup> Revit<sup>®</sup> MEP
- Autodesk<sup>®</sup> Revit<sup>®</sup> Structure





Power source Input power Capacity Airflow rate Sound pressure level Dimensions Weight Connection pipe diameter Refrigerant Material/Color

Product parameter



# Airstage Project Manager (APM)

For Distributors and Reps

APPLIES TECHNOLOGY TO SIMPLIFY PROJECT MANAGEMENT AND ENSURE A SUCCESSFUL VRF INSTALLATION.

- Central Project Host for Sales Team
- Track all project status
- Upload project files and equipment list
- Automated quotes and Submittal packages creation
- Get price support and place orders
- Upload Commissioning documents
- Print Extended Warranty

# THE APM INTEGRATES WITH THE DESIGN SIMULATOR

- Project users can generate Engineering Submittal Packages using only a few mouse clicks.
- Users can use this integration to create numerous customizable quotes.
- Purchasing can be easily managed through the quoting system.







Airstage Website (for building owners) http://www.airstagevrf.com

#### A PLACE TO LEARN THE BASICS

Go to airstagevrf.com to learn more about Fujitsu's Airstage VRF products and programs such as:

- Basic Product Overview
- Contact Us Portal Login
- Specifications & Downloads
  - Case Studies
- Locate a Contractor Distributor

Service & Support

- Locate a Sales Rep
- Airstage Portal (for Engineers and Contractors)

#### https://portal.fujitsugeneral.com

#### A CENTRAL PLACE FOR PROJECT MEMBERS TO COORDINATE

The Airstage Portal provides a single source for all information for Fujitsu Airstage VRF Systems. From the Airstage Portal, all registered users have access to a wealth of information including manuals, technical information, diagrams, online training and more.

Who has access to the Portal?

- Engineers
- Contractors
- Fujitsu Distributors/Personnel
- Independent Airstage Sales Reps

To create a Portal account, go to <a href="http://portal.fujitsugeneral.com">http://portal.fujitsugeneral.com</a> and click on "Register Now".

AIRSTAGE PROJECT MANAGER (APM) ON THE FUIITSU PORTAL (for Reps and Distributors)

#### A PLACE TO SUPPORT PROJECTS ALL THE WAY TO COMPLETION

The APM ensures clear and effective communication between all members of the Fujitsu channel by applying technology to simplify project management and ensure a successful VRF installation. For access to the APM, contact your Airstage Rep. Here's what you can do inside the APM:

- Manage your Fujitsu Airstage projects large and small.
- Create a project and track its progress from the design stage, to quote generation, order processing and deliverytracking to submittal and commissioning.
- Import equipment schedules from the Fujitsu Design
- Simulator as well as piping and wiring diagrams.
- Request and manage job pricing.



What's on the Portal? Tools for **Engineers and Contractors** 

- Access to Literature Online
- Access to all Manuals
- Download Design Simulator

- Troubleshooting Guides
- Instructional Videos
- Frequently Asked Questions

#### Training

- Designing Airstage Systems
- Reinforce information covered in on-site training classes
- Learn about new and advanced Airstage features

#### Parts

Parts Identification Diagrams

#### **Tools for Fujitsu Partners**

#### Maintain Projects

- Upload Design Simulator files
- Track project status

#### Submittals & Closeout Documentation

- Automatically generate submittals & closeout documents
- · Commissioning Report and closeout documents are archived for future reference

#### Warranty & Commissioning

- Process warranty claims
- Submit Commissioning Report
- Print Extended Warranty Certificate