

# Panasonic



Variable Refrigerant Flow (VRF),  
Multi-Zone, Heat Pump & Heat  
Recovery Systems







# Table of Contents

## ECO<sup>i</sup>™ – Your Building Life Tool.

<b>INTRODUCTION</b> .....	1-2
High-Spec. Remote .....	4-5
<b>Control Systems</b> .....	6-15
ECONAVI .....	16-17
<b>Indoor Units</b> .....	18-31
MK Wall Mounted .....	20
MY Series 4-Way Cassette 24" x 24" .....	21
MU Series 4-Way Cassette 36" x 36" .....	22
MD Series 1-Way Cassette .....	23
MM Concealed Duct-Low Static .....	24
MF Concealed Duct-Medium Static .....	25
ME Concealed Duct-High Static .....	26
MVA Vertical Multi Poise series .....	27
MT Ceiling Mounted .....	28
MP / MR Floor Standing .....	29
VRF 2-Way Cross Reference .....	30-31
Product Advantages .....	32-33
Core Technologies .....	34-37
<b>ECO<sup>i</sup>™ Series Line-Up</b> .....	38-39
<b>ECO<sup>i</sup> EX™ MF2 Series 3-Way VRF 460V</b> .....	40-41
<b>ECO<sup>i</sup> EX™ ME2 Series 2-Way VRF 460V</b> .....	42-43
<b>ECO<sup>i</sup> EX™ MF2 Series 3-Way VRF 208-230V</b> .....	44-45
<b>ECO<sup>i</sup> EX™ ME2 Series 2-Way VRF 208-230V</b> .....	46-47
<b>MINI ECO<sup>i</sup>™ LE Series VRF</b> .....	48
<b>VRF 2-Way 208-230V Cross Reference</b> .....	49
<b>Efficiency Rating</b> .....	50-52
<b>MINI ECO<sup>i</sup>™ 2-Way Heat Pump Series</b> .....	53
<b>VRF 3-Way 208-230V Cross Reference</b> .....	54
<b>VRF 2-Way 460V Cross Reference</b> .....	55
Solenoid Valve Kit .....	56-57
<b>Accessories</b> .....	58-59
<b>PAC<sup>i</sup>™ Series Line-Up</b> .....	60-61
<b>PEK Wall Mounted</b> .....	62
<b>PET Ceiling Mounted</b> .....	63
<b>PEU 4-Way Cassette</b> .....	64
<b>PEF Ceiling Mounted</b> .....	65
<b>PAC<sup>i</sup>™ Single Split Cross Reference</b> .....	66
<b>Extend Your Warranty</b> .....	67-68
<b>HVAC Contact Information</b> .....	69
<b>Services</b> .....	70-71

## A Better Life, A Better World

Since the founding of Panasonic Corporation in 1918, the management philosophy behind all of our activities has driven us to contribute, through our business operations, to the improvement of people's lives and the progress of society. We will always maintain this focus.

In 2018, Panasonic will celebrate its 100th anniversary. As we prepare to greet a new century in business, the world is witnessing a major turning point in society and in the way we live. It is no longer practical to pursue extravagant lifestyles that consume large amount of resources and energy.

We need to create new value for a new way of living that minimizes the burden we place on the environment, while raising everyone's standard of living. This is our mission: to create new lifestyle values.

Panasonic complete air conditioning solutions—including hardware, software, and service—enhance the spaces where people live and work. Through this offering, we are committed to delivering *A Better Life, A Better World* to every customer.





We are committed to becoming a partner in the lives of people all over the world.

## For the Living Inside & Out.

### Contractors

#### Building support

At Panasonic, we realize contractors are looking for turnkey installation and support. ECOi™ VRF is simply the perfect building solution. With its modular design and ease of installation, it's a solution that can grow with any building project. In fact, ECOi™ may just make you remember why you got into the HVAC business in the first place.

### Engineers

#### ECOi™ Designing with confidence

Its flexibility allows multiple applications and installation configurations. With a maximum pipe length of up to 1,640 Heat Recovery / 3,280 feet Heat Pump with up to 64 (Heat Recovery / Heat Pump) indoor units connected to one outdoor system, you can engineer a perfect solution for all your project needs. ECOi™ is a superior modular option that allows floor-by-floor commissioning.

### Architects

#### Design freedom

Of course, nobody understands this more than the architects who design them. That's why the ECOi™ HVAC system provides more freedom to meet any design need. With space saving and environmentally friendly designs, and ultimate efficiency, you can design your vision first then marry our system fluidly within your plans.

### Owners & Tenants

#### All-day comfort

With immediate response to changing room capacity heat loads and varying sun exposures throughout the day, everybody stays cool and comfortable. ECOi™ ensures individual zone temperature control so each office or room can be adjusted for personalized comfort.

ECOi™ can grow with you, too. As remodeling occurs and building extensions are planned, ECOi™'s modularity lets you easily add on to the system. With intelligent controllers, VRF technology and R410A refrigerant, ECOi™ guarantees continued energy savings and eco-responsibility for years to come.

## ECOi™ – Your Building Life Tool.

ECOi™ has a number of diverse features to meet all your conditioning needs, including flexible combinations: ECOi™ allows multiple indoor unit combinations that provide the utmost in versatility. The system allows up to 150% connectable capacity between indoor and outdoor units of heat pump and heat recovery.

**Inverter Control Compressor:** All ECOi™ systems utilize highly advanced inverter controlled compressor technology. By varying the rotational speed of the compressor, the inverter control can precisely match the amount of refrigerant being delivered to each zone.

This intelligent approach helps realize excellent efficiencies during partial-load conditions. This allows occupants to enjoy consistent room temperature, regardless of any increases or decreases in the heat or cooling load during the day. With energy efficiency in mind, ECOi™ quite simply knows what you need, when you need it throughout the day. In conjunction with ECONAVI™, it dynamically adjusts air conditioning occupied or unoccupied zones, maximizing energy savings.

**Lower running and life cycle costs:** ECOi™ VRF are among the most efficient HVAC systems on the market, offering COPs up to 4.0 at full load conditions.

All VRF systems are designed to maximize the reduction of running cost by using our unique intelligent control sequence. This is done by the most efficient combination of compressor, fan, and refrigeration management criteria.

Improved defrost sequencing reduces running cost and defrost cycle.

(50%-150% ratio of indoor to outdoor capacity)

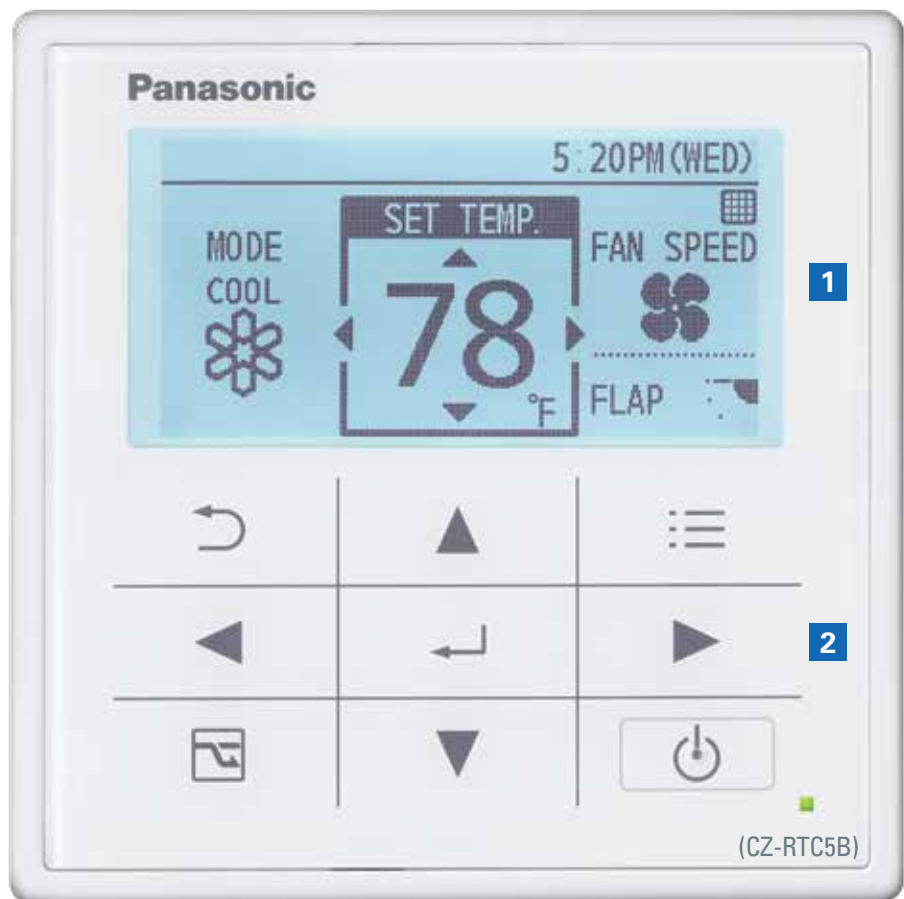


# Controls and Connectivity



ECOi EX™ Series

# High-spec Wired Remote Controller



1

## Large 3.5" Full-dot LCD with White LED Backlight

Characters and icons are clearly displayed for improved visibility. The display is also large enough to provide a wide range of information for easy confirmation of operation conditions.

2

## Stylish, Easy-to-use Touch Key Design

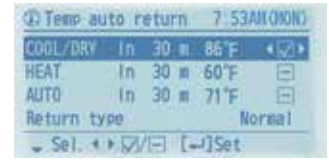
The elegant, flat design features large touch keys in a simple layout enabling easy, intuitive operation.



## Multiple Control Setting Functions for More Energy Saving

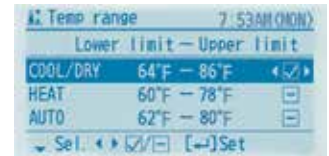
### Temperature Auto Return

Even if you change the temperature setting, it automatically returns to the original setting after a set time. You can set temperature auto return time in 10-minute intervals within a 4-hour period.



### Temperature Setting Range

Both maximum and minimum temperature settings can be limited. Doing this helps reduce power consumption due to over cooling or heating. Setting is possible in the Cooling, Heating and Dry modes.



### Auto Shutoff

Air conditioning operation can be programmed to stop its operation automatically after a set time, so you don't have to worry about forgetting to switch the unit off. Even if you manually switch the unit back on after it has stopped, the program will continue to activate and continue to switch off the operation after a set time.



## Other Convenient Controls

### Individual Louver Control

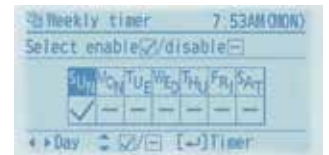
(Lock individual flap only for 4-way cassette MU type)

Each of the 4-directional outlets can be selected and locked to provide efficient air distribution that matches the indoor unit layout. Indoor units can be set individually.



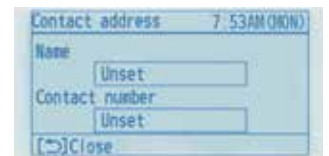
### Weekly Timer

This lets you select 8 Start/Stop times and temperature presets for each day of the week.



### Service Contact Address

Once you register your service contact details, they are automatically displayed if a problem with the air conditioner occurs. This helps you deal with the situation quickly.



#### Menu items

- Basic instructions
- FLAP
- Individual louver control (Lock individual flap only for 4-way cassette MU type)
- ON/ OFF timer
- Weekly timer
- Filter information
- Outing function
- Quiet operation mode
- Energy saving
- Initial settings
- Ventilation

#### Energy Saving

- Temperature auto return
- Temperature setting range
- Auto shutoff
- Schedule peak cut
- Repeat off timer
- ECONAVI on/ off

#### Maintenance Function

- Outdoor unit error data
- Service Contact address
- RC setting mode
- Test Run
- Sensor Information
- Service check
- Simple/ Detailed Settings
- Auto address

# CONTROL SYSTEMS SYSTEM CONTROL NETWORK

Panasonic system control network is the heart and soul of the ECOi™ unit, enabling it to live with the living inside. With a simple two-wire loop installation, we put control in your hands, literally. No outside specialists required, it's an all-in-one solution for you, and a way to further build profits by keeping installation in-house. The logic resides in the ECOi system and the control is the gateway.

CZ-RTC5B / CZ-RTC4 / CZ-RWSC3 / CZ-RWSU3U  
 CZ-RWST2U / CZ-RWSD2U  
 CZ-RWSK1U / CZ-RE2C2 / CZ-CAPC2U / CZ-64ESMC2U  
 CZ-256ESMC2U / CZ-CFUNC1U  
 CZ-CSRC3 / CZ-CLNC1U  
 CZ-CAPRA1

AN ALL-IN-ONE SOLUTION FOR YOU, NO OUTSIDE SPECIALISTS REQUIRED.

PART NUMBER	DESCRIPTION
CZ-RTC5B	HIGH-SPEC WIRED REMOTE CONTROLLER Touch key operation, weekly timer, energy saving functions etc. (Ref.P6-7)
CZ-RTC4	WIRED REMOTE CONTROLLER — 7- day setback, mode, temp, service, etc.
CZ-RWSC3	REMOTE CONTROLLER RECEIVER — To be used with CZ-RWSK1U
CZ-RWSU3U	WIRELESS REMOTE CONTROLLER — For use with MU models
CZ-RWST2U	WIRELESS REMOTE CONTROLLER — For use with MT models
CZ-RWSD2U	WIRELESS REMOTE CONTROLLER — For use with MD models
CZ-RWSK1U	WIRELESS REMOTE CONTROLLER — For use with PK, MK and MY models & for use with CZ-RWSC3
CZ-RE2C2	SIMPLE REMOTE CONTROLLER — On/Off, Mode, Temp, Fan Speed, Flap, Service Function
CZ-CAPC2U	INTERFACE ADAPTOR — For On/Off Control, External Device
CZ-64ESMC2U	SYSTEM CONTROLLER — Set individual indoor unit temps for up to 4 zones, 16 indoor units max per zone, Schedule Timer
CZ-256ESMC2U	INTELLIGENT CONTROLLER ( Web Enabled ) — Controls Max of 256 indoor units with CZ-CFUNC1U or 128 indoor units as stand alone device
CZ-CFUNC1U	COMMUNICATIONS ADAPTOR — Used with INTELLIGENT CONTROLLER and BMS interface (USPA-AC-BAC-128)
CZ-CSRC3	REMOTE SENSOR
CZ-CLNC1U	LONWORKS INTERFACE — Maximum of 64 indoor units
CZ-CAPRA1	RAC ADAPTER — This adapter interfaces residential models and enable them to be controlled by ECOi central controllers
USPA-RC2-BAC-1	BACNET IP or MSTP DEVICE (1 device per indoor unit required)
USPA-AC-BAC-128	BACNET OVER IP SERVER DEVICE (Controls up to 128 indoor units)
USPA-RC2-WIFI-1	WiFi Internet Control Device for Ecoi and Paci Indoor Units (Max. 1 per indoor unit)
RCS4MHVB-J	Wireless Remote Controller Wall Bracket
CZ-CENSCI	ECONAVI Sensor (For Use with Model 2U6 indoor units only)



# CONTROL SYSTEMS SYSTEM CONTROL NETWORK



**CZ-RWSU3U**  
For Use With MU Indoor Units



**CZ-RWSD2U**  
For Use With MD Indoor Units



**CZ-RWST2U**  
For Use With MT Indoor Units



**CZ-RWSK1U**  
For Use With PK, MK and MY Indoor Units



**CZ-RWSC3**  
Remote Controller Receiver to be used with CZ-RWSK1U MM, MF, ME, MP and MR Indoor Units

Panasonic's wireless remote controls more than comfort.

## WIRELESS REMOTES CONTROL IN THE PALM OF YOUR HAND

Take control of the entire system, from mode, temperature, airflow, and system diagnosis, all through an easy-to-read liquid crystal display. Total control at your fingertips.

### KEY FEATURES:

- \* Thin and Easy To Read
- \* Simple To Install and Use
- \* Can Be Adapted for Use On All ECOi Indoor Units
- \* Fan Speed Control
- \* Timer Mode Start/Stop
- \* Timer Mode On/Off
- \* Operating Mode
- \* Inspection/Test Indication
- \* Remote Can Be Configured To Sense Temperature



**CZ-RTC5B**  
High-spec Wired Remote Controller (ECONAVI Compatible)

Simple remotes offer control where minimal functionality is best suited for those inside. Panasonic Standard Remote with 7-Day Timer is perfectly suited for those requiring more programmed management over multiple zones. By offering immediate diagnostics and up to six-daily set temperature schedules, it's a perfectly controlled solution offering intuitive simplicity.



**CZ-CSRC3**  
Temperature Remote Sensor



**CZ-RE2C2**  
Simple Remote Controller



**CZ-RTC4**  
Standard Remote/7-Day Timer For Use With All Indoor Units (ECONAVI Compatible)

Panasonic wired remote controls offer multiple conditioning solutions to meet the needs of any project.

## WIRED REMOTES SIMPLE TO INSTALL

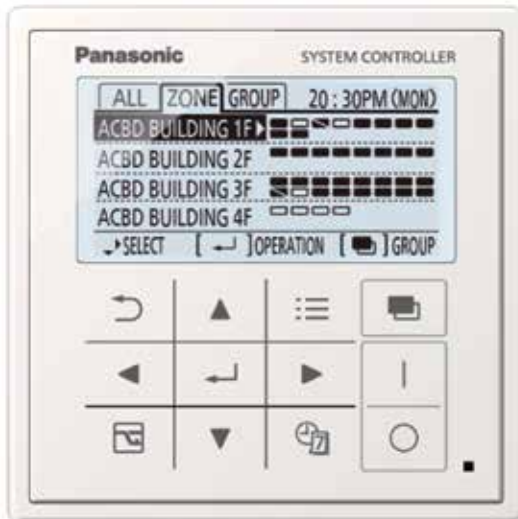
### KEY FEATURES (STANDARD REMOTE/7 DAY TIMER):

- \* Thin and Easy To Read
- \* Simple To Install and Use
- \* Can Be Adapted for Use On All ECOi Indoor Units
- \* Fan Speed Control: Including Automatic or Fixed
- \* Airflow Direction
- \* Operating Mode (Heating/Cooling/Auto/Dry/Fan)
- \* Vacation Mode for Continued Energy Efficiencies
- \* Full 7-Day Set-Back Functionality, With Up To 6 Time Periods/Day
- \* Full System Diagnostic Capability (Diagnostic History Provides Immediate View of System Past and Present).

### KEY FEATURES (SIMPLE REMOTE):

- \* Thin and Easy To Read
- \* Simple To Install and Use
- \* Can Be Adapted for Use On All ECOi Indoor Units
- \* Operating Mode (Heating/Cooling/Auto/Dry/Fan)
- \* Vacation Mode for Continued Energy Efficiencies
- \* Fan Speed Control: Including Automatic or Fixed
- \* Set Temperature
- \* On/Off
- \* Airflow Direction
- \* Perfectly Suited for Applications Where Simpler Functionality is Required (ie: Hotel Rooms, Nursing Homes, Offices)

# CONTROL SYSTEMS SYSTEM CONTROL NETWORK



**CZ-64ESMC2U**  
System Controller

Controls Up To 64 Units Into 4 Individualized Zones

## MULTIPLE ZONE CONTROLLERS THE HEART AND SOUL OF CONDITIONING.

### KEY FEATURES (SYSTEM CONTROLLER):

- \* Controls Up To 64 Units Into 4 Individualized Zones
- \* Alarm and Operational Signal Output
- \* Single Access Points for All Connected Wired Remotes
- \* Incorporates a Schedule Timer

Panasonic system and intelligent controls are the central nervous system to the conditioning system. The gateway to all data, temperature and system diagnostics.

## CONTROLS UP TO 256 INDOOR UNITS



**CZ-256ESMC2U**  
Intelligent Controller

Web Accessible/Real Time Diagnostics Through Individual IP Address

### KEY FEATURES (INTELLIGENT CONTROLLER):

- \* 10.4 Inch Touch Screen Panel
- \* Controls up to 256 Indoor units with added Communication Adapter (128 indoors without)
- \* New Control Wiring System (S Net) Connects Up To 64 Units To a Single Control Line
- \* Provides Individual Tenant Billing data for 3 systems addition systems are done by adding Communication Adapters. Requires watt hour meters
- \* Provides Individual Tenant Billing Data Through Calculations Based on a Per-Tenant Basis
- \* Individual Zone Override Feature (High/Low Setting)
- \* Web Accessible/Real Time Diagnostics Through Individual IP Address
- \* Diagnostic History of System Past and Present



# CONTROL SYSTEMS BUILDING MANAGEMENT INTEGRATION



**CZ-CLNC1U**  
LonWorks Interface

Panasonic LonWorks interface integrates into many compatible building management systems. Single point of control. Access to all of the ECOi™ conditioning mechanics.

## LONWORKS INTERFACE SINGLE POINT OF CONTROL

### KEY FEATURES:

- \* Communicate with LonWorks compatible systems
- \* Start/Stop
- \* Controls up to 16 groups (Maximum 64 Indoor Units)
- \* For 17 or more groups of indoor units connect additional interface units.
- \* Temperature setting, fan speed, etc.
- \* Schedule time setting
- \* Alarm notification



**CZ-CAPC2U**  
(Interface Adapter)

Panasonic interface adapter will be installed with intelligent controller to operate fresh-air supply unit as one of our indoor unit.

## INTERFACE ADAPTOR FOR ON/OFF CONTROL EXTERNAL DEVICE

### KEY FEATURES:

- \* Control and status monitoring is possible for individual indoor unit (or any external electrical device up to 24V AC, 1A) by contact signal.



**CZ-CAPRA1**  
(RAC Adaptor)

Panasonic RAC interface adaptor integrates our Eco-i system with Panasonic Room Air Conditioner Indoor Systems.

## RAC ADAPTER

### KEY FEATURES:

- \* This adapter interfaces residential models and enable them to be controlled by ECO i central controllers.

# CONTROL SYSTEMS BUILDING MANAGEMENT INTEGRATION



BACnet IP or MSTP device for control & monitoring of the indoor unit.

## USPA-RC2-BAC-1

The **USPA-RC2-BAC-1** is a BACnet IP or MSTP device capable of monitoring and controlling all generations of ECOi, ECOi EX and PACi units. Simply configured via external switches. Graphical User Interface is easily accessed through the Ethernet port.



BACnet IP or MSTP device for control & monitoring multiple indoor units.

## USPA-AC-BAC-128

The **USPA-AC BAC-128** is a BACnet over IP server device capable of monitoring and controlling ECOi, ECOi EX and PACi systems.

Up to 128 indoor units and 10 refrigerant circuits can be integrated (up to 30 PACi systems). Auto-Discover feature detects connected Panasonic equipment for easy setup and integration. Setup and control via Ethernet port to access GUI.

BACnet IP Controller, requires (1) Communication Adaptor(CZ-CFUNC1U)



WiFi device to enable communication with IOS devices.

## USPA-RC2-WIFI-1

### ECOi, ECOi EX and PACi Model Number: USPA-RC2-WIFI-1

The Wireless Home device controls the indoor unit by connecting to the wired remote terminals. It can be combined with wired remotes. This facilitates the control of the indoor unit with a smart device and the appropriate app as supplied.

# CONTROL SYSTEMS BUILDING MANAGEMENT INTEGRATION



## SER8150R0B1194

Connects to the R1 & R2 terminals of the Panasonic indoor unit. Touch Screen with customizable user experience. 5 selectable screen colors out of the box. Supports the upload of a custom standby screen and custom messages. One touch change from C / F temperature display. On board RH sensor. Compatible with ZigBee Pro wireless sensors. Available Uploader tool for the upload of Lua Scripts, standby screen images, and firmware upgrades.



## SER8150R5B1194

Connects to the R1 & R2 terminals of the Panasonic indoor unit. Touch Screen with customizable user experience. 5 selectable screen colors out of the box. Supports the upload of a custom standby screen and custom messages. One touch change from C / F temperature display. On board RH sensor. On-board PIR sensor. Compatible with ZigBee Pro wireless sensors. Available in multiple languages. Available Uploader tool for the upload of Lua Scripts, standby screen images, and firmware upgrades.

## FASCIA OPTIONS



FAS-00  
Silver



FAS-01  
White



FAS-03  
Glossy Translucent  
White



FAS-05  
Light Tan Wood



FAS-06  
Dark Brown Wood



FAS-10  
Brushed Steel Finish

Fascia options available in multiple color schemes



## CONTROL SYSTEMS PERIPHERALS



CO<sub>2</sub> Detector

### SED-CO2-G-5045

Monitor indoor air quality, review data on interfacing devices, and control the amount of fresh air inside customizable zones.



Door & Window Contact

### SED-WDC-G-5045

Door and window contact detection sensor to monitor opening and closing.



Wall and Ceiling Occupancy Sensor

### SED-MTH-G-5045

Wall and ceiling sensor to detect the presence or absence of occupants.

# CONTROL SYSTEMS PERIPHERALS



Water Sensing Detector

## SED-WLS-G-5045

Two sensing pads under the body activate when water is present between the two pads. Detecting the water, the sensor reports the event to the controller.



ZigBee Pro Communications Card

## VCM8000V5094P

The wireless ZigBee Pro communication card installs directly into the SER8150 remote thermostat. This card monitors and communicates with the Schneider wireless sensors.



Universal Network Controller Cable Extension

## MPM-RAEC-5045

Universal network controller cable extension



Relay Pack (TE2)

## SEC-TEA-R-230-5045, SEC-TEA-R-24-5045

Relay Pack (TE2)

Wireless programmable terminal equipment controllers for HVAC equipment and pulse counting. Includes local memory to store fail safe control sequence. Available in 220-240 Vac. or 24 Vac.



BMS Gateway (MPM)

## MPM-UN-014-5045

BMS Gateway (MPM)

Multi-Purpose Management devices enable the control, monitoring, and management of entire sites via Schneider Electric's BMS system.



Hotel Room Controller with Display Screen

## HRCPDG42R

Hotel Room Controller (with Display Screen)

The Hotel Room Controller controls connected guest room devices and aggregates data, making it visible to guest room and property management.

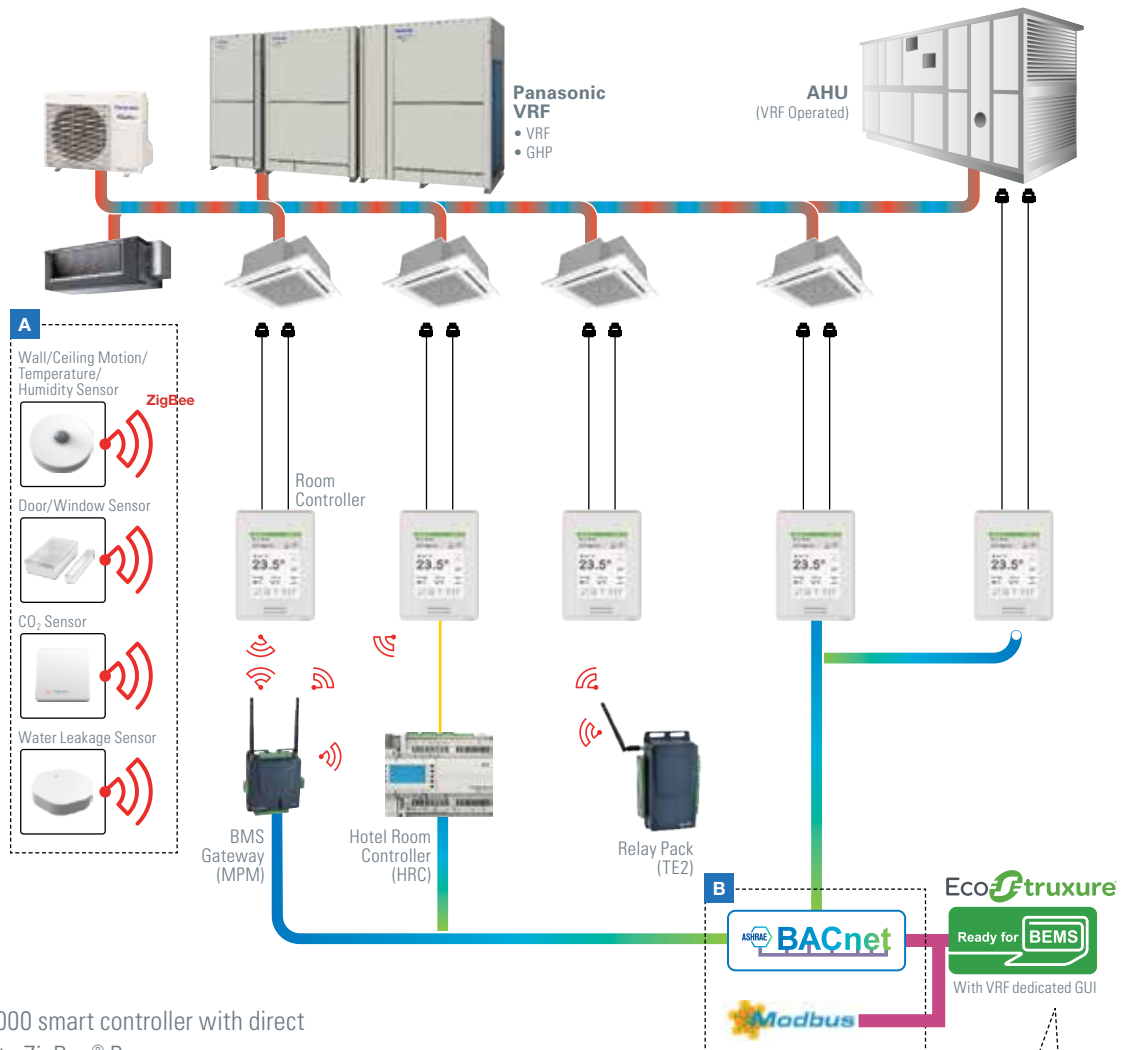


# MANAGEMENT SYSTEM FOR THE ENTIRE BUILDING

The smarter solution to simplify energy management, optimise building efficiency and drive savings.

## Plug and Play BMS connection.

With the SE8000, connection to BMS is extremely easy. Better still, a remote controller is all that's needed to enable use as a stand-alone system. In addition to dramatically reducing the burden on system integrators, this cuts costs.



**A** SE8000 smart controller with direct hub to ZigBee® Pro sensors. Great Occupancy and IAQ control. Ex: Hotel room occupancy check by PIR sensor, IAQ by CO2 sensor, Door / Window contacts.

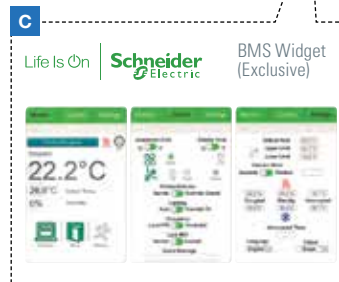
**B** BACnet MS/TP or Modbus RTU communication are selectable

**C** For Schneider Electric BMS connection, Panasonic VRF widgets enable easy Plug and Play. Better understanding for VRF as a chiller system.



**BMS Gateway (MPM)**

Multi-Purpose Management devices enable the control, monitoring, and management of entire sites via Schneider Electric's BMS system.



\* Graphic shows combination of products from Panasonic, Schneider Electric and others. Please consult authorised dealer for more details.

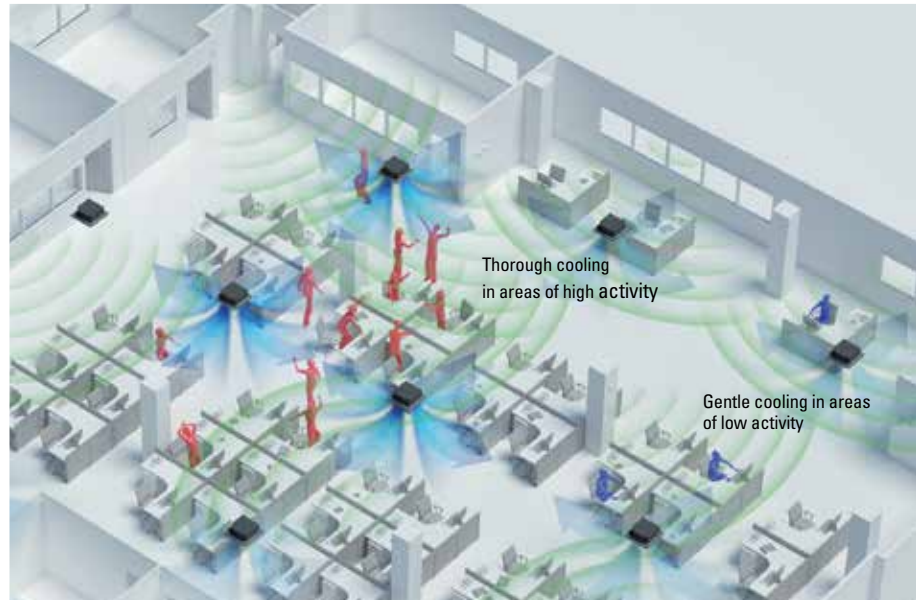
## ECOi EX™ Series

# ECONAVI



### ECONAVI Detects Inefficiencies and Saves Energy

Providing outstanding energy-saving performance, Panasonic inverter VRF System can be connected to ECONAVI to detect energy waste. ECONAVI senses the presence or absence of people and the level of activity in each area of an office. When unnecessary heating or cooling is detected, indoor units are individually controlled to match office conditions for energy-saving operation.



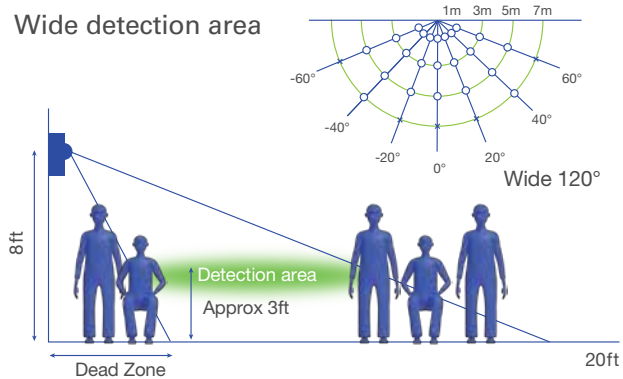
ECONAVI sensor  
CZ-CENSC1

Compatible with various types of indoor units



Remote ECONAVI sensor allows optimum energy operation.

Pillars, walls, cabinets and other fittings obstruct the sensor, reducing the area of detection and lowering the energy-saving effect. Taking into consideration blind spots, ECONAVI enables the optimum layout for sensors in any office.



A sensor is remotely set to maximise the detection area.

Installation flexibility ready for indoor unit replacement and layout changes.



Detection of activity levels enables precise power saving.

Presence or absence of people at their desks and the level of activity in the office are detected in real time. Set temperature is automatically adjusted to optimize the lower power consumption.



**In the morning**  
Thorough cooling during high levels of activity



**In the afternoon**  
Reduced cooling when fewer people are present



**At night**  
Automatic Thermo Off depending on conditions at end of day\*

Human activity and presence detection



















































Activity detection		Absence detection	
HIGHER ACTIVITY	LOWER ACTIVITY	After 20 mins absence	After 3 hours absence
Cooling Set Temp. +/-0.0°F	Cooling Set Temp. +1.8°F	Cooling Set Temp. +3.6°F	Cooling Thermo OFF*
Heating Set Temp. -1.8°F	Heating Set Temp. +/-0 °F	Heating Set Temp. -3.6°F	Heating Thermo OFF*
Every 2 min	Every 2 min	After 3 hours the setting can change to Stop or Temperature Shift	

\*Depending on conditions, the setting can change to Switch Off After 3 Hours, Thermo Off or Temperature Shift.



# INDOOR UNITS LINE-UP

Panasonic introduced its first VRF to the US market in 2001 with 16 different indoor units. Since then, it has continued to refine and expand VRF indoor offerings, and the lineup totals 50 models today. In 2016, Panasonic is replacing some indoor units with more sophisticated designs and better efficiencies. These new indoor models are also connectable to Panasonic original "ECONAVI" sensor (optional). Whether for an office, hotel, or other type of property, Panasonic offers a wide selections to meet your air conditioning requirements.

Type	Nominal Cooling Capacity (Btu/h class)					
	7,500	9,000	12,000	15,000	18,000	24,000
<b>MK TYPE</b> Wall Mounted 	 S-07MK2U6	 S-09MK2U6	 S-12MK2U6		 S-18MK2U6	 S-24MK2U6
<b>MY TYPE</b> 4-way Cassette 24" x 24" 	 S-07MY2U6	 S-09MY2U6	 S-12MY2U6		 S-18MY2U6	
<b>MU TYPE</b> 4-way Cassette 36" x 36" 	 S-07MU2U6	 S-09MU2U6	 S-12MU2U6			 S-24MU2U6
<b>MD TYPE</b> 1 Way Cassette	 S-07MD1U6	 S-09MD1U6	 S-12MD1U6			
<b>MM TYPE</b> Concealed Duct – Low Static 	 S-07MM2U6	 S-09MM2U6	 S-12MM2U6	 S-15MM2U6	 S-18MM2U6	
<b>MF TYPE</b> Concealed Duct – Medium Static 	 S-07MF2U6	 S-09MF2U6	 S-12MF2U6	 S-15MF2U6	 S-18MF2U6	 S-24MF2U6
<b>ME TYPE</b> Concealed Duct – High Static						
<b>MT TYPE</b> Ceiling 			 S-12MT2U6		 S-18MT2U6	 S-24MT2U6
<b>MP TYPE</b> Floor Standing	 S-07MP1U6	 S-09MP1U6	 S-12MP1U6	 S-15MP1U6	 S-18MP1U6	 S-24MP1U6
<b>MR TYPE</b> Floor Standing	 S-07MR1U6	 S-09MR1U6	 S-12MR1U6	 S-15MR1U6	 S-18MR1U6	 S-24MR1U6
<b>MVA TYPE</b> Vertical Air Handler					 MVA18FBAS6HBCP	 MVA24FBAS6HBCP

For ECONAVI option, order sensor & controller separately



Sensor  
**CZ-CENSC1**



Controller  
**CZ-RTC4**  
Standard Controller /  
7-day Timer



Controller  
**CZ-RTC5B**  
High-spec Wired  
Remote Controller

### Actual Installation Examples

#### MU TYPE



#### MD TYPE



#### MF TYPE



36,000 MVA: 30,000 / 36,000      48,000 MVA: 42,000 / 48,000      54,000 MVA: 60,000



S-36MU2U6



S-36MF2U6



S-48MF2U6



S-54MF2U6



S-36ME1U6



S-48ME1U6



MVA30FBAS6HBCP  
MVA36FBAS6HBCP



MVA42FBAS6HBCP  
MVA48FBAS6HBCP



MVA60FBAS6HBCP

#### INDOOR OPERATING TEMPERATURE

Cooling	Minimum	57° F (WB)
	Maximum	77° F (WB)

#### INDOOR OPERATING TEMPERATURE

Heating	Minimum	61° F (DB)
	Maximum	86° F (DB)

# MK WALL MOUNTED UNIT



**ECONAVI**  
(Optional Accessory)

Panasonic wall-mounted units work well with any interior design. Flexible and compact, offering individualized zoned comfort for complete temperature control throughout the day. Over five different air flow directions and wireless remotes provide control in the palm of your hand.

S-07MK2U6 / S-09MK2U6 / S-12MK2U6 /  
S-18MK2U6 / S-24MK2U6

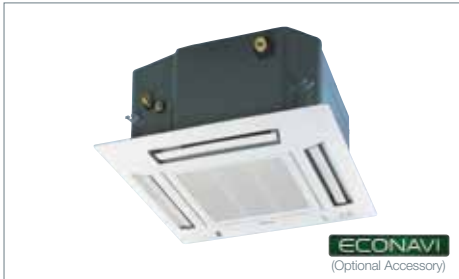
## KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Easy Wall Mount for Any Application
- \* Washable Long Life Filter
- \* Washable Front Panel
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* ECONAVI Connection Possible
- \* New Flash Panel design
- \* Wired or Wireless Remote Control (Optional)
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* DC Motor

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-07MK2U6	7,500 BTU	208-230V/60 HZ	1
S-09MK2U6	9,600 BTU	208-230V/60 HZ	1
S-12MK2U6	12,000 BTU	208-230V/60 HZ	1
S-18MK2U6	18,000 BTU	208-230V/60 HZ	1
S-24MK2U6	25,000 BTU	208-230V/60 HZ	1

DESCRIPTION	S-07MK2U6	S-09MK2U6	S-12MK2U6	S-18MK2U6	S-24MK2U6
<b>PERFORMANCE</b>					
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H	18,000 BTU/H	25,000 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H	20,000 BTU/H	27,000 BTU/H
<b>CURRENT</b>					
COOLING	0.23/0.21 A	0.25/0.23 A	0.27/0.25 A	0.41/0.39 A	0.61/0.58 A
HEATING	0.23/0.21 A	0.25/0.23 A	0.27/0.25 A	0.41/0.39 A	0.61/0.58 A
<b>POWER INPUT</b>					
COOLING	25/25 W	25/25 W	30/30 W	40/40 W	57/57 W
HEATING	25/25 W	25/25 W	30/30 W	40/40 W	57/57 W
<b>HEAT EXCHANGER</b>					
FAN TYPE X QUANTITY	CROSS FLOW X1	CROSS FLOW X1	CROSS FLOW X1	CROSS FLOW X1	CROSS FLOW X1
<b>FAN AIRFLOW RATE CFM-(H/M/L)</b>					
COOLING	345/265/230	345/265/230	385/320/230	565/441/335	635/512/406
HEATING	360/295/240	360/295/240	400/335/240	565/441/335	635/512/406
FAN MOTOR TYPE	DC	DC	DC	DC	DC
FAN MOTOR OUTPUT	30 W	30 W	30 W	47 W	47 W
<b>REFRIGERANT PIPE DIMENSIONS</b>					
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"	1/4"	3/8"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"	1/2"	5/8"
<b>UNIT DIMENSIONS</b>	11.5" / 34.5" / 8.5" / 20 LBS.			12" / 42" / 9" / 29 LBS.	12" / 42" / 9" / 32 LBS.
Inches (") / lbs.	HEIGHT / WIDTH / DEPTH / NET WEIGHT			HEIGHT / WIDTH / DEPTH / NET WEIGHT	HEIGHT / WIDTH / DEPTH / NET WEIGHT
<b>DRAINPIPE DIMENSION</b>	3/4" OD				
(1" adaptor included)					
<b>SOUND LEVELS</b>					
(LOW-MED-HIGH) DB(A) @ 230V	29/33/36	29/34/37	29/36/40	37/40/44	38/42/47

# MY SERIES 4-WAY CASSETTE 24" X 24" WITH CONDENSATE PUMP



Panasonic's 4-Way cassette units are flexible, efficient and space-saving. Now available to fit within standard 24" x 24" ceiling grids.

S-07MY2U6 / S-09MY2U6 / S-12MY2U6 / S-18MY2U6

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Four Way Air Throw
- \* Washable Long Life Air Filter
- \* Built-In Drain Pump – 30 Inch Lift
- \* Electronic Expansion Valve (EEV) for Precise Refrigerant Control
- \* Individual Flap Control Possible for Better Air Distribution.
- \* ECONAVI Attachment Possible
- \* Automatic or 3 Fan Speeds Control
- \* Easy Installation
- \* DC Motor

MODELS	Components	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-07MY2U6	System	7,500 BTU 4-Way Ceiling cassette 24" x 24" (includes grille)	208-230V/1ø/60 HZ	1
	S-07MY2U6	cassette	208-230V/1ø/60 HZ	1
	CZ-18KPY2U	grille		
S-09MY2U6	System	9,600 BTU 4-Way Ceiling cassette 24" x 24" (includes grille)	208-230V/1ø/60 HZ	1
	S-09MY2U6	cassette	208-230V/1ø/60 HZ	1
	CZ-18KPY2U	grille		
S-12MY2U6	System	12,000 BTU 4-Way Ceiling cassette 24" x 24" (includes grille)	208-230V/1ø/60 HZ	1
	S-12MY2U6	cassette	208-230V/1ø/60 HZ	1
	CZ-18KPY2U	grille		
S-18MY2U6	System	18,000 BTU 4-way Ceiling cassette 24" x 24" (includes grille)	208-230V/1ø/60 HZ	1
	S-18MY2U6	cassette	208-230V/1ø/60 HZ	1
	CZ-18KPY2U	grille		

DESCRIPTION	S-07MY2U6	S-09MY2U6	S-12MY2U6	S-18MY2U6
<b>PERFORMANCE</b>				
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H	19,000 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H	21,000 BTU/H
<b>CURRENT</b>				
COOLING	0.32/0.30 A	0.32/0.30 A	0.32/0.30 A	0.37/0.35 A
HEATING	0.27/0.25 A	0.32/0.30 A	0.32/0.30 A	0.37/0.35 A
<b>POWER INPUT</b>				
COOLING	35/35 W	35/35 W	40/40 W	45/45 W
HEATING	30/30 W	30/30 W	35/35 W	40/40 W
<b>HEAT EXCHANGER</b>				
FAN TYPE X QUANTITY	TURBO	TURBO	TURBO X1	TURBO X1
<b>FAN AIRFLOW RATE CFM-(H/M/L)</b>				
COOLING	321/290/258	328/297/258	345/305/275	365/345/300
HEATING	328/297/258	339/307/258	350/320/270	390/345/305
FAN MOTOR TYPE	DC	DC	DC	DC
FAN MOTOR OUTPUT	40 W	40 W	40 W	40 W
<b>REFRIGERANT PIPE DIMENSIONS</b>				
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"	1/4"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"	1/2"
<b>UNIT DIMENSIONS</b>	10.25" / 22.66" / 22.66" / 40 LBS.		10.25" / 22.66" / 22.66" / 40 LBS.	
Inches (") / lbs.	HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT		HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	
<b>DRAINPIPE DIMENSION</b>	1" ID		1" ID	
(1" adaptor included)				
<b>SOUND LEVELS</b>				
(LOW-MED-HIGH) DB(A) @ 230V	35/33/31	35/33/29	32/34/36	34/37/40



# MU SERIES 4-WAY CASSETTE 36" X 36" WITH CONDENSATE PUMP



Panasonic 4-Way cassette units are flexible, efficient and space-saving. Two sides can be adjusted simply to accommodate corner airflow.

## S-07MU2U6 / S-09MU2U6 / S-12MU2U6 / S-24MU2U6 / S-36MU2U6

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Four Way Air Throw
- \* Washable Long Life Air Filter
- \* Built-In Drain Pump – 33" Lift
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Wired or Wireless Remote Control
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* DC Motor

MODELS	Components	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-07MU2U6	System	7,500 BTU 4-Way Ceiling cassette 36" x 36" (includes grille)	208-230V/60 HZ	1
	S-07MU2U6	cassette	208-230V/60 HZ	1
	CZ-36KPU3U	grille		
S-09MU2U6	System	9,600 BTU 4-Way Ceiling cassette 36" x 36" (includes grille)	208-230V/60 HZ	1
	S-09MU2U6	cassette	208-230V/60 HZ	1
	CZ-36KPU3U	grille		
S-12MU2U6	System	12,000 BTU 4-Way Ceiling cassette 36" x 36" (includes grille)	208-230V/60 HZ	1
	S-12MU2U6	cassette	208-230V/60 HZ	1
	CZ-36KPU3U	grille		
S-24MU2U6	System	25,000 BTU 4-Way Ceiling cassette 36" x 36" (includes grille)	208-230V/60 HZ	1
	S-24MU2U6	cassette	208-230V/60 HZ	1
	CZ-36KPU3U	grille		
S-36MU2U6	System	36,000 BTU 4-Way Ceiling cassette 36" x 36" (includes grille)	208-230V/60 HZ	1
	S-36MU2U6	cassette	208-230V/60 HZ	1
	CZ-36KPU3U	grille		

DESCRIPTION	S-07MU2U6	S-09MU2U6	S-12MU2U6	S-24MU2U6	S-36MU2U6
<b>PERFORMANCE</b>					
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H	25,000 BTU/H	36,000 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H	27,000 BTU/H	39,000 BTU/H
<b>CURRENT</b>					
COOLING	0.20/0.19 A	0.20/0.19 A	0.20/0.19 A	0.36/0.33 A	0.75/0.71 A
HEATING	0.18/0.17 A	0.18/0.17 A	0.18/0.17 A	0.35/0.32 A	0.68/0.65 A
<b>POWER INPUT</b>					
COOLING	20/20 W	20/20 W	20/20 W	40/40 W	95/95 W
HEATING	20/20 W	20/20 W	20/20 W	40/40 W	85/85 W
<b>HEAT EXCHANGER</b>					
FAN TYPE X QUANTITY	TURBO X1	TURBO X1	TURBO X1	TURBO X1	TURBO X1
<b>FAN AIRFLOW RATE CFM-(H/M/L)</b>					
COOLING	494/424/388	494/424/388	494/424/388	777/600/494	1,165/953/742
HEATING	494/424/388	494/424/388	494/424/388	777/600/494	1,165/953/742
FAN MOTOR TYPE	DC	DC	DC	DC	DC
FAN MOTOR OUTPUT	60 W	60 W	60 W	60 W	90 W
<b>REFRIGERANT PIPE DIMENSIONS</b>					
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"	3/8"	3/8"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"	5/8"	5/8"
<b>UNIT DIMENSIONS</b>					
Inches (") / lbs.	10.08"/33.08"/33.08"/51 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	10.08"/33.08"/33.08"/51 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	10.08"/33.08"/33.08"/51 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	10.25"/33.25"/33.25"/53 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	10.25"/33.25"/33.25"/60 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT
<b>DRAINPIPE DIMENSION</b> (1" adaptor included)	1 1/4" OD / 1" ID				
<b>SOUND LEVELS</b> (LOW-MED-HIGH) DB(A) @ 230V	28/29/30	28/29/30	28/29/30	29/32/37	34/38/44

# MD SERIES 1-WAY CASSETTE WITH CONDENSATE PUMP



Panasonic's 1-Way cassette units are flexible and space-saving. A perfect conditioning solution for small spaces. Barely visible, the unit blends with any interior design. Powerful enough to cool and comfort those inside.

## S-07MD1U6 / S-09MD1U6 / S-12MD1U6

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* One-Way Air Throw – Perfect for Small Spaces
- \* Washable Long Life Air Filter
- \* Built-In Drain Pump – 25" Lift
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Only 13" Tall (Not Including Decorative Panel), 30" wide X 25" deep
- \* Wired or Wireless Remote Control
- \* Automatic or 3 Fan Speeds Control
- \* Optional Outside Air Intake
- \* Easy Service

MODELS	Components	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-07MD1U6	System	7,500 BTU 1-Way Ceiling cassette (includes grille)	208-230V/60 HZ	1
	S-07MD1U6	cassette	208-230V/60 HZ	1
	CZ-12KPD1U	grille		
S-09MD1U6	System	9,000 BTU 1-Way Ceiling cassette (includes grille)	208-230V/60 HZ	1
	S-09MD1U6	cassette	208-230V/60 HZ	1
	CZ-12KPD1U	grille		
S-12MD1U6	System	12,000 BTU 1-Way Ceiling cassette (includes grille)	208-230V/60 HZ	1
	S-12MD1U6	cassette	208-230V/60 HZ	1
	CZ-12KPD1U	grille		

DESCRIPTION	S-07MD1U6	S-09MD1U6	S-12MD1U6
<b>PERFORMANCE</b>			
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H
<b>CURRENT</b>			
COOLING	0.29/0.28 A	0.29/0.28 A	0.32/0.31 A
HEATING	0.28/0.26 A	0.28/0.26 A	0.34/0.32 A
<b>POWER INPUT</b>			
COOLING	48/50 W	48/50 W	52/55 W
HEATING	44/46 W	44/46 W	50/52 W
<b>HEAT EXCHANGER</b>			
FAN TYPE X QUANTITY	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1
FAN AIRFLOW RATE CFM-(H/M/L)	282/247/212	282/247/212	320/280/250
FAN EXT. STATIC PRESS (230V)	0 IN. WC	0 IN. WC	0 IN. WC
FAN MOTOR TYPE	DC	DC	DC
FAN MOTOR OUTPUT	60 W	60 W	60 W
<b>REFRIGERANT PIPE DIMENSIONS</b>			
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"
<b>UNIT DIMENSIONS</b>	13" / 30" / 24.5" / 43 LBS.		
Inches (") / lbs.	HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT		
<b>DRAINPIPE DIMENSION</b>	1 1/4 "OD / 1 "ID		
(1" adaptor included)			
<b>SOUND LEVELS</b>			
(LOW-MED-HIGH) DB(A) @ 230V	29/31/33		31/34/36

# MM CONCEALED DUCT – LOW STATIC SERIES



**ECONAVI**  
(Optional Accessory)

8" high - Low Static fits into tight ceiling spaces.  
Panasonic MM units are ideal for drop ceiling applications including apartments, condominiums, and hotel rooms. Compact design permits installation within conditioned space.

S-07MM2U6 / S-09MM2U6 / S-12MM2U6 / S-15MM2U6 / S-18MM2U6

## KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Adjustable External Static Pressure
- \* Built-In Drain Pump – 20" Lift
- \* Wired or Wireless Remote Control
- \* ECONAVI Connection Possible.
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* Low Profile Fits into Tight Ceiling Spaces
- \* 4 Temperature Sensors(Air Intake/ Discharge) for Optimum Operations.
- \* Washable Long Life Filter
- \* DC Motor

MODELS	(Type: Nominal Cooling Capacity, etc)		Volt	PH
S-07MM2U6	7,500 BTU	ESP = 0.04 / 0.12	208-230V/60 HZ	1
S-09MM2U6	9,600 BTU	ESP = 0.06 / 0.12	208-230V/60 HZ	1
S-12MM2U6	12,000 BTU	ESP = 0.06 / 0.16	208-230V/60 HZ	1
S-15MM2U6	15,000 BTU	ESP = 0.06 / 0.16	208-230V/60 HZ	1
S-18MM2U6	19,000 BTU	ESP = 0.06 / 0.16	208-230V/60 HZ	1

DESCRIPTION	S-07MM2U6	S-09MM2U6	S-12MM2U6	S-15MM2U6	S-18MM2U6
<b>PERFORMANCE</b>					
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H	15,000 BTU/H	19,000 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H	17,000 BTU/H	21,000 BTU/H
<b>CURRENT</b>					
COOLING	0.26/0.26 A	0.30/0.30 A	0.32/0.31 A	0.40/0.37 A	0.50/0.48 A
HEATING	0.23/0.23 A	0.27/0.27 A	0.29/0.28 A	0.36/0.34 A	0.48/0.45 A
<b>POWER INPUT</b>					
COOLING	36/36 W	40/40 W	42/42 W	49/49 W	64/64 W
HEATING	26/26 W	30/30 W	32/32 W	39/39 W	54/54 W
<b>HEAT EXCHANGER</b>					
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
<b>FAN AIRFLOW RATE CFM-(H/M/L)</b>					
COOLING	283/247/212	300/265/230	318/283/247	371/336/283	442/406/353
HEATING	283/247/212	300/265/230	318/283/247	371/336/283	442/406/353
FAN EXT. STATIC PRESS (230V)	0.04 / 0.12 IN. WC	0.06 / 0.12 IN. WC	0.06 / 0.16 IN. WC	0.06 / 0.16 IN. WC	0.06 / 0.16 IN. WC
FAN MOTOR TYPE	DC	DC	DC	DC	DC
FAN MOTOR OUTPUT	60 W	60 W	60 W	60 W	60 W
<b>REFRIGERANT PIPE DIMENSIONS</b>					
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"	1/4"	1/4"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"	1/2"	1/2"
<b>UNIT DIMENSIONS</b>	7 7/8", 29 17/32", 25 13/64", 42 LBS				
Inches (") / lbs.	HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT				
<b>DRAINPIPE DIMENSION</b>	3/4" ID				
(3/4" flexible adapter included)					
<b>SOUND LEVELS</b>					
(LOW-MED-HIGH) DB(A) @ 230V	25/27/28	27/29/30	28/30/32	30/32/34	32/35/37

# MF CONCEALED DUCT – MEDIUM STATIC SERIES



**ECONAVI**  
(Optional Accessory)

Panasonic concealed duct units are compact and space saving with advanced zoning capabilities and efficient design. A perfect conditioning solution for shorter duct runs.

S-07MF2U6 / S-09MF2U6 / S-12MF2U6  
S-15MF2U6 / S-18MF2U6 / S-24MF2U6  
S-36MF2U6 / S-48MF2U6 / S-54MF2U6

### KEY FEATURES:

- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Adjustable External Static Pressure
- \* Built-In Drain Pump – 20 Inch Lift
- \* Wired or Wireless Remote Control
- \* Eco-friendly R410A Refrigerant
- \* ECONAVI Connection Possible.
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* Optional Outside Air Intake
- \* DC Motor

**CZ-560AF2 Duct Flange**  
(For use with S-07, S-09, S-12, S-15 & S-18 MF)

**CZ-90DAF2 Duct Flange**  
(For use with the S-24 MF)

**CZ-160DAF2 Duct Flange**  
(For use with the S-36, S-48 & S-54 MF)

MODELS	(Type: Nominal Cooling Capacity, etc)		Volt		PH
S-07MF2U6	7,500 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-09MF2U6	9,600 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-12MF2U6	12,000 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-15MF2U6	15,000 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-18MF2U6	19,000 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-24MF2U6	25,000 BTU	0.28/0.60" WG (ESP)	208-230V/60 HZ		1
S-36MF2U6	36,000 BTU	0.40/0.60" WG (ESP)	208-230V/60 HZ		1
S-48MF2U6	47,800 BTU	0.40/0.60" WG (ESP)	208-230V/60 HZ		1
S-54MF2U6	54,600 BTU	0.40/0.60" WG (ESP)	208-230V/60 HZ		1

DESCRIPTION	S-07MF2U6	S-09MF2U6	S-12MF2U6	S-15MF2U6	S-18MF2U6	S-24MF2U6	S-36MF2U6	S-48MF2U6	S-54MF2U6
<b>PERFORMANCE</b>									
COOLING CAPACITY	7,500 BTU/H	9,600 BTU/H	12,000 BTU/H	15,000 BTU/H	19,000 BTU/H	25,000 BTU/H	36,000 BTU/H	47,800 BTU/H	54,600 BTU/H
HEATING CAPACITY	8,500 BTU/H	11,000 BTU/H	14,000 BTU/H	17,000 BTU/H	21,000 BTU/H	27,000 BTU/H	39,000 BTU/H	54,600 BTU/H	61,400 BTU/H
<b>CURRENT</b>									
COOLING	0.63/0.57 A	0.63/0.57 A	0.63/0.57 A	0.63/0.57 A	0.81/0.74 A	0.95/0.89 A	1.53/1.42 A	1.64/1.52 A	1.76/1.63 A
HEATING	0.63/0.57 A	0.63/0.57 A	0.63/0.57 A	0.63/0.57 A	0.81/0.74 A	0.95/0.89 A	1.53/1.42 A	1.64/1.52 A	1.76/1.63 A
<b>POWER INPUT</b>									
COOLING	70/70 W	70/70 W	70/70 W	70/70 W	100/100 W	120/120 W	220/220 W	235/235 W	250/250 W
HEATING	70/70 W	70/70 W	70/70 W	70/70 W	100/100 W	120/120 W	220/220 W	235/235 W	250/250 W
<b>HEAT EXCHANGER</b>									
FAN TYPE	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1	CENTRIFUGAL X1
<b>FAN AIRFLOW RATE CFM-(H/M/L)</b>									
COOLING	494/459/353	494/459/353	494/459/353	494/459/353	565/530/424	742/671/530	1204/989/812	1271/1095/848	1342/1165/883
HEATING	494/459/353	494/459/353	494/459/353	494/459/353	565/530/424	742/671/530	1204/989/812	1271/1095/848	1342/1165/883
FAN EXT. STATIC PRESS (230V)	0.28/0.60" WG (ESP)	0.28/0.60" WG (ESP)	0.28/0.60" WG (ESP)	0.28/0.60" WG (ESP)	0.28/0.60" WG (ESP)	0.28/0.60" WG (ESP)	0.40/0.60" WG (ESP)	0.40/0.60" WG (ESP)	0.40/0.60" WG (ESP)
FAN MOTOR TYPE	DC	DC	DC	DC	DC	DC	DC	DC	DC
FAN MOTOR OUTPUT	119 W	119 W	119 W	119 W	119 W	119 W	235 W	235 W	235 W
<b>REFRIGERANT PIPE DIMENSIONS</b>									
LOW PRESSURE (FLARE)	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"
HIGH PRESSURE (FLARE)	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"
<b>UNIT DIMENSIONS</b>									
Inches (") / lbs.	11-7/16"/ 31-1/2" / 27-9/16" / 64 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT				11-7/16"/ 31-1/2" / 27-9/16" / 64 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	11-7/16"/ 39-3/8" / 27-9/16" / 75 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	11-7/16"/ 55-1/8" / 27-9/16" 99 LBS. HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT		
<b>DRAINPIPE DIMENSION</b> (1" adaptor included)	1" ID								
<b>SOUND LEVELS</b> (LOW-MED-HIGH) DB(A) @ 230V	25/29/33	25/29/33	25/29/33	28/32/34	28/32/34	26/32/35	32/35/39	32/36/40	33/37/41



# ME CONCEALED DUCT – HIGH STATIC SERIES



Panasonic concealed ceiling units are flexible and space saving, helping maximize floor and wall space. Advanced zoning capabilities condition large areas simply and efficiently. Completely concealed, they offer simple installation.

## S-36ME1U6 / S-48ME1U6

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Perfect for Long Duct Runs
- \* Wired or Wireless Remote Control
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* Built-in Float Safety

A PERFECT APPLICATION FOR LONGER DUCT RUN INSTALLATIONS

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-36ME1U6	36,000 BTU    ESP = 0.70"	208-230V/60 HZ	1
S-48ME1U6	48,000 BTU    ESP = 0.67"	208-230V/60 HZ	1

DESCRIPTION	S-36ME1U6	S-48ME1U6
<b>CAPACITY</b> COOLING HEATING	36,000 BTU 39,000 BTU	47,800 BTU 54,600 BTU
<b>CURRENT</b> COOLING HEATING	2.84/2.89 A 2.74/2.80 A	3.24/3.19 A 3.17/3.42 A
<b>POWER INPUT</b> COOLING HEATING	548/620 W 528/602 W	644/695 W 627/756 W
<b>UNIT DIMENSIONS</b> Inches (") / lbs.	16.5"/ 42"/ 24.5"/ 110 lbs. Height/ Width/ Depth/ Net Weight	18"/ 42"/ 24.5"/ 119 lbs. Height/ Width/ Depth/ Net Weight
<b>HEAT EXCHANGER</b> FAN TYPE X QUANTITY FAN AIRFLOW RATE CFM-(H/M/L) FAN EXT. STATIC PRESS (230V) FAN MOTOR TYPE FAN MOTOR OUTPUT	CENTRIFUGAL X1 1,060/988/883 0.70 - In. WC AC 200 - W	CENTRIFUGAL X1 1,272/1,237/1,160 0.67 - In. WC AC 400 - W
<b>REFRIGERANT PIPE DIMENSIONS</b> LOW PRESSURE (FLARE) HIGH PRESSURE (FLARE)	3/8" 5/8"	3/8" 5/8"
<b>DRAINPIPE DIMENSION</b> (1" adaptor included)	1" OD	1" OD
<b>SOUND LEVELS</b> (LOW-MED-HIGH)	42/44/45 - DB(A) @ 230V	44/46/47 - DB(A) @ 230V

# MVA VERTICAL MULTI POISE SERIES



MVA Vertical Air Handlers are compact and efficient. With 4 thermistors (Air intake/outlet, 2 HEX sensors) more precise control is possible. Optional electric heater is available to accommodate comfortable heating even in the harshest winter.

MVA18FBAS6HBCP/ MVA24FBAS6HBCP  
 MVA30FBAS6HBCP/ MVA36FBAS6HBCP  
 MVA42FBAS6HBCP/ MVA48FBAS6HBCP  
 MVA60FBAS6HBCP

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 phase , 60Hz
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Multi-position (Horizontal/Vertical) Possible
- \* High efficient ECM(DC) Fan Motor
- \* Optional Electric Heater Available (Field installed)
- \* 19 Gauge Galvanized External Panel with Baked on Polyester Powder Coating
- \* Adjustable External Static
- \* With 1-inch Filter Rack
- \* Optional Filter Available. (2" or 4" Fiter RACK)

MODELS	Nominal Cooling Capacity	Static std / Max	Volt	PH
MVA18FBAS6HBCP	19,800 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA24FBAS6HBCP	24,700 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA30FBAS6HBCP	32,000 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA36FBAS6HBCP	36,000 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA42FBAS6HBCP	42,000 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA48FBAS6HBCP	48,000 BTU/h	0.3 / 0.5	208/230V 60Hz	1
MVA60FBAS6HBCP	60,000 BTU/h	0.3 / 0.5	208/230V 60Hz	1

NOTE: When conneting MVA model(s) in the system(mix or all), the maximum connectable indoor/outdoor capacity ratio will be limited to 130%.

DESCRIPTION	MVA18 FBAS6HBCP	MVA24 FBAS6HBCP	MVA30 FBAS6HBCP	MVA36 FBAS6HBCP	MVA42 FBAS6HBCP	MVA48 FBAS6HBCP	MVA60 FBAS6HBCP
<b>PERFORMANCE</b>							
COOLING CAPACITY	19,800 BTU/H	24,700 BTU/H	32,000 BTU/H	36,000 BTU/H	42,000 BTU/H	48,000 BTU/H	60,000 BTU/H
HEATING CAPACITY	23,900 BTU/H	28,000 BTU/H	37,000 BTU/H	40,000 BTU/H	49,000 BTU/H	54,000 BTU/H	68,000 BTU/H
FULL LOAD AMP.	3.0 A	3.0 A	3.6 A	3.6 A	7.3 A	7.3 A	7.6 A
FAN MOTOR OUTPUT	224 W	396 W	309 W	440 W	567 W	1040 W	1110 W
FAN TYPE	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL	CENTRIFUGAL
FAN MOTOR TYPE	DC	DC	DC	DC	DC	DC	DC
AIRFLOW CFM (H/M/L)	690/675/621	882/769/718	1037/952/837	1229/1067/978	1335/1213/1133	1597/1378/1238	1932/1658/1500
EXT. STATIC PRESS. STD/MAX	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.	0.3/0.5 IN. W. G.
<b>RIFRIGERANT PIPE SIZE</b>							
GAS PIPE SIZE	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
LIQUID PIPE SIZE	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
<b>PIPE CONNECTION SIZE</b>							
LOW PRESSURE(BRAZING)	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1-1/8"
HIGH PRESSURE(BRAZING)	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
DIMENSIONS (H×W×D) INCH	46.9×17.7×22.2	46.9×17.7×22.2	51.9×20.2×25.2	51.9×20.2×25.2	55.9×22.2×27.2	55.9×22.2×27.2	57.9×24.2×31.2
WEIGHT	135 LBS	135 LBS	145 LBS	145 LBS	158 LBS	158 LBS	190 LBS
DRAIN PIPE CONNECTION	3/4"						
AVAILABLE OPTIONAL HEATER SIZE	3, 5, 6, 8, 10 kW				8KW, 10 kW		
METERING DEVICE	ELECTRONIC EXPVALVE						

ACCESSORY HEATER									
PART NO.	Heater Capacity (kW)		Applications on MVA models						
	240V	208V	MVA18 FBAS6HB CP	MVA24 FBAS6HB CP	MVA30 FBAS6HB CP	MVA36 FBAS6HB CP	MVA42 FBAS6HB CP	MVA48 FBAS6HB CP	MVA60 FBAS6HB CP
MVA03HT	3	2.3	x	x	x	x			
MVA05HT	5	3.8	x	x	x	x			
MVA06HT	6	4.5	x	x	x	x			
MVA08HT	8	6	x	x	x	x	x	x	x
MVA10HT	9.5	7.5	x	x	x	x	x	x	x

Only qualified personnel must install the electrical service. Refer to manuals for more details.

(Single stage electric heater)

# MT CEILING SUSPENDED



Panasonic ceiling units are an ideal solution to any medium to light commercial application. Well suited for retail stores, schools, and restaurant applications. These units utilize large supply air openings to provide comfortable airflow and ultra quiet operation.

## S-12MT2U6 / S-18MT2U6 / S-24MT2U6

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* New Round Design Fits into Numerous Ceiling Locations
- \* Long Distance Air Throw with Newly Designed Fan and DC Motor
- \* Washable Long Life Air Filter
- \* Electronic Expansion Valve (EEV) for Precise Refrigerant Control
- \* Wired or Wireless Remote Control
- \* ECONAVI Attachment Possible
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
S-12MT2U6	12,000 BTU	208-230V/60 HZ	1
S-18MT2U6	19,000 BTU	208-230V/60 HZ	1
S-24MT2U6	25,000 BTU	208-230V/60 HZ	1

DESCRIPTION	S-12MT2U6	S-18MT2U6	S-24MT2U6
<b>CAPACITY</b> COOLING HEATING	12,000 BTU 14,000 BTU	19,000 BTU 21,000 BTU	25,000 BTU 27,000 BTU
<b>CURRENT</b> COOLING HEATING	0.38/0.36 A 0.38/0.36 A	0.40/0.38 A 0.40/0.38 A	0.46/0.44 A 0.46/0.44 A
<b>POWER INPUT</b> COOLING HEATING	35/35 W 35/35 W	40/40 W 40/40 W	55/55 W 55/55 W
<b>UNIT DIMENSIONS</b> Inches (") / lbs.	9" / 37" / 27" / 60 lbs. Height/ Width/ Depth/ Net Weight		9" / 50" / 27" / 73 lbs. Height/ Width/ Depth/ Net Weight
<b>HEAT EXCHANGER</b> FAN TYPE X QUANTITY FAN AIRFLOW RATE CFM-(H/M/L) FAN MOTOR TYPE FAN MOTOR OUTPUT	CENTRIFUGAL X2 494/424/371 DC 74 W	CENTRIFUGAL X2 530/441/371 DC 74 W	CENTRIFUGAL X3 742/636/547 DC 74 W
<b>REFRIGERANT PIPE DIMENSIONS</b> LOW PRESSURE (FLARE) HIGH PRESSURE (FLARE)	1/4" 1/2"	1/4" 1/2"	3/8" 5/8"
<b>DRAINPIPE DIMENSION</b> (3/4" adapter included)	1" OD 3/4" ID	1" OD 3/4" ID	1" OD 3/4" ID
<b>SOUND LEVELS</b> (LOW-MED-HIGH) DB(A) @ 230V	30/32/36	30/33/37	33/35/39

# MP/MR FLOOR STANDING



FLOOR STANDING  
WITH DECORATIVE PANEL

S-07MP1U6 / S-09MP1U6 / S-12MP1U6  
S-15MP1U6 / S-18MP1U6 / S-24MP1U6

**KEY FEATURES:**

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Wired or Wireless Remote Control
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* Washable Long Life Filter



FLOOR STANDING  
WITHOUT DECORATIVE PANEL

S-07MR1U6 / S-09MR1U6 / S-12MR1U6  
S-15MR1U6 / S-18MR1U6 / S-24MR1U6

**KEY FEATURES:**

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Wired or Wireless Remote Control
- \* Automatic or 3 Fan Speeds Control
- \* Easy Service
- \* Washable Long Life Filter

DESCRIPTION	S-07MP1U6 / S-07MR1U6	S-09MP1U6 / S-09MR1U6	S-12MP1U6 / S12MR1U6	S-15MP1U6 / S15MR1U6	S-18MP1U6 / S18MR1U6	S-24MP1U6 / S-24MR1U6
<b>CAPACITY</b> COOLING HEATING	7,500 BTU 8,500 BTU	9,600 BTU 11,000 BTU	12,000 BTU 14,000 BTU	15,000 BTU 17,000 BTU	19,000 BTU 21,000, BTU	24,000 BTU 27,000 BTU
<b>CURRENT</b> COOLING HEATING	.22/.24 A .22/.23 A	.22/.24 A .22/.23 A	.42/.44 .40/.42	.58/.60 .53/.55	.58/.60 .53/.55	.61/.63 .56/.58
<b>POWER INPUT</b> COOLING HEATING	45/54 W 43-50 W	45/54 W 43-50 W	86/101 83/96	116/134 106/122	116/134 106/122	119/138 109/125
<b>FHX UNIT DIMENSIONS</b> Inches (") / lbs.	24.25"/42"/9"/64 lbs. HT / W / D / NT WT	24.2"/42"/9"/64 lbs. HT / W / D / NT WT	24.2"/42"/9"/64 lbs. HT / W / D / NT WT	24.0"/54.5"/9"/86 lbs. HT / W / D / NT WT	24.0"/54.5"/9"/86 lbs. HT / W / D / NT WT	24.0"/54.5"/9"/86 lbs. HT / W / D / NT WT
<b>FMHX UNIT DIMENSIONS</b> Inches (") / lbs.	24.25"/35.5"/9"/46 lbs. HT / W / D / NT WT	24.25"/35.5"/9"/46 lbs. HT / W / D / NT WT	24.25"/35.5"/9"/46 lbs. HT / W / D / NT WT	24.25"/48"/9"/62 lbs. HT / W / D / NT WT	24.25"/48"/9"/62 lbs. HT / W / D / NT WT	24.25"/48"/9"/62 lbs. HT / W / D / NT WT
<b>HEAT EXCHANGER</b> FAN TYPE X QUANTITY FAN AIRFLOW RATE CFM-(H/M/L) FAN MOTOR OUTPUT	Centrifugal 247/212/177 10 W	Centrifugal 247/212/177 10 W	Centrifugal 318/247/212 20 W	Centrifugal 424/318/283 20 W	Centrifugal 530/459/389 30 W	Centrifugal 601/495/424 60 W
<b>REFRIGERANT PIPE DIMENSIONS</b> LOW PRESSURE (FLARE) HIGH PRESSURE (FLARE)	1/4" 1/2"	1/4" 1/2"	1/4" 1/2"	1/4" 1/2"	1/4" 1/2"	3/8" 5/8"
<b>DRAINPIPE DIMENSION</b> (3/4" adapter included)	3/4" ID	3/4" ID	3/4" ID	3/4" ID	3/4" ID	3/4" ID
<b>SOUND LEVELS</b> (LOW-MED-HIGH)	28/30/33	28/30/33	29/35/39	31/35/38	31/36/39	35/38/41

# VRF ECOi INDOOR UNITS CROSS REFERENCE

## INDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	INDOOR UNIT TYPE	BTU CAPACITY
KHX0752	S-07MK1U6	S-07MK2U6	WALL MOUNTED	7,500
KHX0952	S-09MK1U6	S-09MK2U6		9,600
KHX1252	S-12MK1U6	S-12MK2U6		12,000
KHX1862	S-18MK1U6	S-18MK2U6		18,000
KHX2452	S-24MK1U6	S-24MK2U6		25,000
UHX0762	S-07MF1U6	S-07MF2U6	CONCEALED DUCTED (MEDIUM STATIC)	7,500
UHX0962	S-09MF1U6	S-09MF2U6		9,600
UHX1262	S-12MF1U6	S-12MF2U6		12,000
UHX1562	S-15MF1U6	S-15MF2U6		15,000
UHX1862	S-18MF1U6	S-18MF2U6		19,000
UHX2462	S-24MF1U6	S-24MF2U6		25,000
UHX3662	S-36MF1U6	S-36MF2U6		36,000
UHX4862	S-48MF1U6	S-48MF2U6		48,000
UHX5462	S-54MF1U6	S-54MF2U6		54,600
THX1252	S-12MT1U6	S-12MT2U6	CEILING MOUNTED	12,000
THX1852	S-18MT1U6	S-18MT2U6		19,000
THX2452	S-24MT1U6	S-24MT2U6		25,000
AHX0752	S-07MD1U6	S-07MD1U6	1 WAY CASSETTE	7,000
AHX0952	S-09MD1U6	S-09MD1U6		9,000
THX1252	S-12MD1U6	S-12MD1U6		12,000
DHX3652	S-36ME1U6	S-36ME1U6	DUCTED (HIGH STATIC)	36,000
DHX4852	S-48ME1U6	S-48ME1U6		48,000



Sanyo to Panasonic Merger  
October 2011



# VRF ECOi INDOOR UNITS CROSS REFERENCE (CONTINUED)

## INDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	INDOOR UNIT TYPE	BTU CAPACITY
UMHX0762	S-07MM1U6	S-07MM2U6	SLIM CONCEALED DUCTED	7,500
UMHX0962	S-09MM1U6	S-09MM2U6		9,600
UMHX1262	S-12MM1U6	S-12MM2U6		12,000
UMHX1562	S-15MM1U6	S-15MM2U6		15,000
UMHX1862	S-18MM1U6	S-18MM2U6		19,000
XMHX1252	S-12MY1U6	S-12MY2U6	4 WAY CASSETTE (24 X 24)	12,000
XMHX1852	S-18MY1U6	S-18MY2U6		19,000
XHX2452	S-24MU1U6	S-24MU2U6	4 WAY CASSETTE (36 X 36)	25,000
XHX3652	S-36MU1U6	S-36MU2U6		36,000
	MVA18FBAS6HBCP	MVA18FBAS6HBCP	VERTICAL AIR HANDLER	19,800
	MVA24FBAS6HBCP	MVA24FBAS6HBCP		24,700
	MVA30FBAS6HBCP	MVA30FBAS6HBCP		32,000
	MVA36FBAS6HBCP	MVA36FBAS6HBCP		36,000
	MVA42FBAS6HBCP	MVA42FBAS6HBCP		42,000
	MVA60FBAS6HBCP	MVA60FBAS6HBCP		60,000
FHX0762	S-07MP1U6	S-07MP1U6	FLOOR MOUNTED (COVER)	7,500
FHX0962	S-09MP1U6	S-09MP1U6		9,600
FHX1262	S-12MP1U6	S-12MP1U6		12,000
FHX1562	S-15MP1U6	S-15MP1U6		15,000
FHX1862	S-18MP1U6	S-18MP1U6		19,000
FHX2462	S-24MP1U6	S-24MP1U6		24,000
FMHX0762	S-07MR1U6	S-07MR1U6		CONCEALED FLOOR MOUNTED (NO COVER)
FMHX0962	S-09MR1U6	S-09MR1U6	9,600	
FMHX1262	S-12MR1U6	S-12MR1U6	12,000	
FMHX1562	S-15MR1U6	S-15MR1U6	15,000	
FMHX1862	S-18MR1U6	S-18MR1U6	19,000	
FMHX2462	S-24MR1U6	S-24MR1U6	24,000	

**SANYO**  **Panasonic**

Sanyo to Panasonic Merger  
October 2011

ECOi EX™ Series  
MF2 3-way Heat Recovery

---

# Product Advantages





ECOi EX™ Series

# Core Technologies





## Outstanding Energy-saving Technology

### 1 Dual large-capacity inverter compressors

Two independently controlled inverter compressors achieve high efficiency (for models U-120MF2U9/U-120ME2U9 and above).



### 2 Enlarged heat-exchanger surface area with triple surface

- The new large size heat exchanger features a 3-sided construction. Compared to the conventional 2 (upper/lower) compartment outdoor unit structure, the new model offers more efficient heat exchanging performance.



Model [MF1/ME1]  
6, 8 tons

New model [MF2/ME2]  
6, 8,10,12 tons

### 3 Gas-liquid separation + oil separation for increased efficiency

- Accumulator : Increases gas-liquid separation efficiency to reduce compressor pressure loss.
- Oil separator : Efficiently separates and absorbs refrigeration oil to prevent it flowing into the heat exchanger.

## Redesigned for Smooth and Better Air Discharge

### 4 Large air discharge area with new flush surface top panel.

To reduce air resistance, instead of a tubular fan design, a new large flat fan guard design, flush with the top panel, is employed.

This design lead to the improvements in air resistance and also contributed to improved air resistance in a more attractive appearance.



Model [MF1/ME1]



New model [MF2/ME2]

### 5 Newly designed curved air discharge bell mouth for better aerodynamics

The new curved shape with integrated top and bottom assure smooth air discharge flow. Minimal swirling means an increased flow rate.



Model [MF1/ME1]



New model [MF2/ME2]

### 6 High 0.32 inch W.C. external static pressure – large diameter fan (27-1/2")

A large, newly-designed 27-1/2" diameter fan. High 0.32 inch W.C. external static pressure maintains performance in winds around large buildings. Ideal for high-rise buildings.





# Core Technologies

## Intelligent 3-stage Oil Management System

In a VRF system, where lengthy piping and a large number of indoor units need to be controlled collectively, the key to maintaining the system's reliability is to ensure an appropriate amount of oil is secured in the compressors. In order to avoid oil shortage in the compressor, maximum operation is normally forcibly conducted at regular intervals to recover oil from indoor units. This method, typically employed in a standard VRF, causes the system to overheat or overcool and thus waste energy.

In Panasonic VRF systems, a sensor for detecting oil levels is mounted in each compressor. In installations with multiple outdoor units, a shortage of oil in one compressor can be compensated for by recovering oil either from another compressor in the same unit, from a compressor in an adjacent outdoor unit, or from a connected indoor unit. Panasonic VRF systems provide users with a comfortable environment while saving energy.

The Panasonic system efficiently manages oil recovery in three stages; minimizing the frequency of forced oil recovery while reducing energy cost and maintaining comfort.

### STAGE-1

Panasonic compressors are equipped with sensors which monitor oil levels precisely at all times. If oil levels fall, oil can be transferred from other compressors within the same outdoor unit.



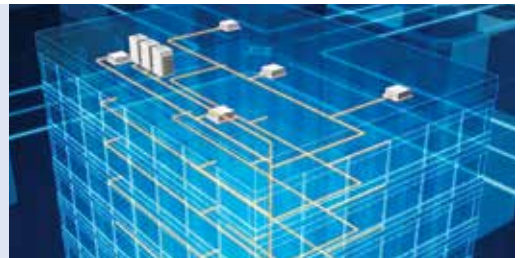
### STAGE-2

If oil levels in all compressors within the outdoor unit fall, oil can be replenished from adjacent outdoor units.



### STAGE-3

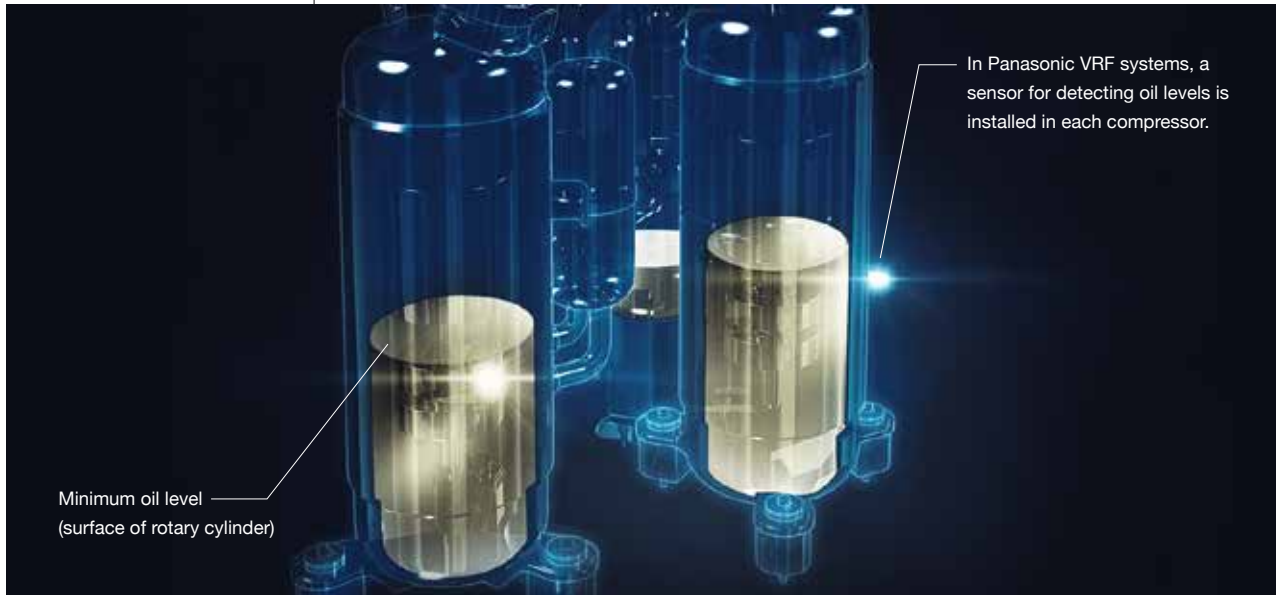
Forced oil recovery is implemented only if oil levels become insufficient in spite of above measures. The Panasonic system's design concept is radically different from conventional oil systems.



## Features of 3-stage oil recovery design

### 1 Oil sensors installed in each compressor

Oil sensors installed in each Panasonic compressor precisely monitor oil levels, eliminating unnecessary oil recovery.



### 2 Highly functional oil separator

Thanks to extended separate piping, oil recovery efficiency reaches 90%, minimizing the oil to be discharged from the compressor.



## ECOi Series Line-Up

# MF 2 SERIES

460V

208-230V

## ECOi EX™

### 3-WAY VRF HEAT RECOVERY

Panasonic ECOi Heat Recovery series offers the ability to heat and cool different zones simultaneously. Offering all the features of our standard heat pump series, the 3-Way solution can offer even higher energy savings for the building owner.



#### KEY FEATURES

Commercial office buildings are subject to fluctuating heat levels generated from electronic office equipment, lighting and varying occupant levels. Hotels, nursing homes and other commercial living spaces often have times when occupants will want either heating or cooling at the same time. The heat recovery system offers the perfect solution for stabilizing the air temperature by providing all the features of a heat pump system - and the added flexibility of simultaneous cooling and heating from one refrigerant pipe network.

- Excellent performance: efficient individual air conditioning for simultaneous heating/cooling  
Individual operation of each indoor unit
- Effective heat recovery system enables higher energy savings
- Improves discharge air temperature of indoor units during heating and simultaneous mode operation
- Maximum outdoor unit connects as many as 64 indoor units (50%-150% ratio of indoor to outdoor capacity)

# LE SERIES

## MINI ECOi™

### VRF HEAT PUMP

208-230V

Panasonic Mini ECOi is suited for numerous commercial and premium residential applications.

# ME 2 SERIES

460V

208-230V

# ECOi EX™

## 2-WAY VRF HEAT PUMP

The new ECOi EX VRF system, redesigned with new DC inverter compressor combination operations and perfected original active oil control system brings the efficiency and reliability you can count on. Panasonic offers superior heating and cooling coupled with cost effective installation. A smart solution for large capacity jobs.



### KEY FEATURES

Panasonic's Combined ECOi EX 2-Way conditioning solution offers superior heating and cooling coupled with cost effective installation. A smart solution for large capacity jobs.

- | Dual large-capacity inverter compressors (models above U-120MEU9)
- | Outstanding energy saving performance: IEER : 28.8 / EER : 12.3 (460 V, 10 tons, non-ducted)
- | Exceptional flexible piping design: Maximum total piping length - 3,280 Feet  
Maximum outdoor to most distant indoor unit - 656 Feet
- | Extended operating range (Outdoor Temperature): Cooling 14 °FDB to 122 °FDB/ Heating -4 °FWB to 64 °FWB
- | Maximum outdoor unit connects as many as 64 indoor units (50%-150% max. ratio of indoor to outdoor capacity)
- | Expanded system capacity range (up to 30tons)



### KEY FEATURES






- | 208/230 VAC / Single Phase / 60 Hz
- | One outdoor unit connects as many as 9 Indoor units (50%-130% ratio of indoor to outdoor capacity)
- | Inverter driven twin rotary compressor
- | Nominal operating range (Outdoor Ambient): Cooling 14 °FDB to 113 °FDB/ Heating -4 °FWB to 59 °FWB
- | Ultra quiet operation as low as 48dB(a)
- | Variable speed DC fan motor
- | Piping: 656 Feet - Maximum total liquid line /164 Feet - Maximum vertical between indoor and outdoor (Outdoor above indoor) /131 Feet - Maximum vertical between indoor and outdoor (outdoor below indoor)
- | Defrost control, reverse cycle, microprocessor control
- | External finish: Galvanized steel plate with powder paint
- | Refrigerant control: Electronic expansion valve
- | Control range 10 - 100%



# MF 2 SERIES

460V

## ECOi EX™ 3-WAY VRF HEAT RECOVERY

MODEL NAME				U-72MF2U94	U-96MF2U94	U-120MF2U94	U-144MF2U94	WU-168MF2U94		
Single Model				U-72MF2U94	U-96MF2U94	U-120MF2U94	U-144MF2U94	U-72MF2U94 U-96MF2U94		
Appearance										
Nominal Tons				6	8	10	12	14		
Performance test condition				AHRI Standard 1230						
Cooling capacity				Btu/h	72,000	96,000	120,000	144,000	168,000	
				kW	21.1	28.1	35.2	42.2	49.2	
Heating capacity				Btu/h	81,000	108,000	135,000	162,000	189,000	
				kW	23.7	31.6	39.6	47.5	55.4	
Rating Standard AHRI 1230				Ducted						
Indoor unit				Capacity	Btu/h	72,000	96,000	120,000	144,000	168,000
Cooling				EER	13.0	10.9	11.4	10.7	10.7	
				IEER	21.0	21.8	21.2	21.1	19.7	
SCHE					27.5	29.6	29.1	28.3	26.2	
High heating 47°F				Capacity	Btu/h	77,000	103,000	129,000	154,000	180,000
				COP	3.72	3.40	3.71	3.29	3.20	
Low heating 17°F				Capacity	Btu/h	56,000	70,000	95,000	100,000	126,000
				COP	2.76	2.49	2.56	2.47	2.50	
Power supply				Ø, V/Hz	3Ø 460V 60Hz					
				V	460					
Electrical ratings Outdoor unit only				Running current	A	7.10	11.0	13.7	16.8	20.1
Ducted cooling				Power input	kW	5.00	7.98	9.52	12.2	14.4
				Power factor	%	89	91	87	91	90
Ducted heating				Running current	A	7.70	11.0	13.3	17.2	20.9
				Power input	kW	5.58	8.14	9.29	12.6	15.3
				Power factor	%	91	93	88	92	92
Starting current				A	1 / 1					
Minimum circuit ampacity				A	15	19	22	26	-	
Maximum overcurrent protection				A	20	30	30	35	-	
Design pressure				High side	psi	484	484	484	484	-
				Low side	psi	236	236	236	-	
Operation sound (Normal/Quiet mode)				dB	53.0 / 50.0	56.0 / 53.0	57.5 / 54.5	58.0 / 55.0	58.0 / 55.0	
Compressor				Type/quantity	Inverter driven Rotary×1	Inverter driven Rotary×1	Inverter driven Rotary×2	Inverter driven Rotary×2	Inverter driven Rotary 1+1	
				Refrigeration oil	Type	A				
				Charge amount	gal	1.03	1.03	1.53	1.53	1.03+1.03
				Crankcase heater	W	27	27	27+27	27+27	
				Capacity control range	%	23-100	17-100	13-100	11-100	9-100
Fan				Type/quantity	Propeller×1	Propeller×1	Propeller×1	Propeller×1	Propeller×1+1	
				Air flow	CFM	7,000	8,100	9,000	9,000	7,000+8,100
				External static pressure	Pa (in. WC)	0-80 [0-0.32]				
				Fan motor output	W/Pole #	750 / 8	750 / 8	750 / 8	750 / 8	750+750 / 8
Refrigerant amount at shipment*1				lbs	R410A / 18.3	R410A / 18.3	R410A / 22.0	R410A / 26.0	R410A / 18.3+18.3	
Refrigerant control				Electronic expansion valve						
Defrost method				Reverse-cycle def					Outdoor unit cycle def	
Coil face area (sq ft) / Number of rows				37.8 / 2		37.8 / 3		37.8 / 3	37.8 / 2 + 37.8 / 2	
High pressure switch				Yes						
Overcurrent (CT method)				Yes						
External finish				Polyester powder double coating						
Dimensions H x W x D*2				72-33/64" x 46-29/64" x 39-3/8"				72-33/64" x 95-9/32" x 39-3/8"		
Net weight				lbs	611	615	774	778	611 + 615	
Ambient temperature operating range				Cooling: 14-122°FDB, Heating: -13-64°FWB						
Piping*3				Diameter	Suction	inch	3/4"	1-1/8"	1-1/8"	1-1/8"
				Liquid	inch	3/8"	3/8"	1/2"	1/2"	5/8"
				Balance	inch	1/4"	1/4"	1/4"	1/4"	
				Discharge	inch	5/8"	3/4"	7/8"	7/8"	
				Connecting method	Flared (Discharge, Liquid, Balance), Brazing (Suction)				-	
				Max total pipe length	Ft				~1,640	
				Elevation difference (OD upper/ OD lower)	Ft				164 / 131	
Maximum allowable indoor unit connection				14	19	24	28	33		
Primary accessories				-	Connection tubing [15.88-19.05]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [15.88-19.05]		
Color (Munsell code)				Ivory [2.6Y7.6/1.1]						

\*1 It's necessary to charge additional refrigerant of 70.5 oz [2.0 kg] per one outdoor unit.

\*2 Width of the product dimension in installation for multiple units is described by using Min unit clearance 60mm. If installation hole pitch is 730mm or using snow-proof ducting. Unit clearance should be 180mm.

\*3 If the longest tubing equivalent length exceeds 295 ft. [90m], increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes.










WU-192MF2U94	WU-216MF2U94	WU-240MF2U94	WU-264MF2U94	WU-288MF2U94	WU-312MF2U94	WU-336MF2U94	WU-360MF2U94
U-72MF2U94 U-120MF2U94	U-72MF2U94 U-72MF2U94 U-72MF2U94	U-72MF2U94 U-72MF2U94 U-96MF2U94	U-72MF2U94 U-72MF2U94 U-120MF2U94	U-72MF2U94 U-72MF2U94 U-144MF2U94	U-72MF2U94 U-120MF2U94 U-120MF2U94	U-72MF2U94 U-120MF2U94 U-144MF2U94	U-120MF2U94 U-120MF2U94 U-120MF2U94
16	18	20	22	24	26	28	30
AHRI Standard 1230							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
56.3	63.3	70.3	77.4	84.4	91.4	98.4	105.5
216,000	243,000	270,000	297,000	324,000	351,000	378,000	405,000
63.3	71.2	79.1	87.0	94.9	102.8	110.8	118.7
Ducted							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
10.5	11.1	10.3	10.4	9.8	9.6	9.3	9.3
19.0	19.2	19.1	18.5	18.5	18.1	19.3	18.0
25.8	23.6	24.2	22.5	19.3	24.1	23.3	22.8
206,000	232,000	258,000	284,000	300,000	334,000	360,000	386,000
3.40	3.40	3.30	3.27	3.25	3.30	3.50	3.30
148,000	162,000	184,000	192,000	200,000	242,000	256,000	270,000
2.50	2.54	2.51	2.57	2.52	2.40	2.40	2.40
3Ø 460V 60Hz							
460							
24.1	25.2	30.0	33.4	38.1	43.6	47.5	52.1
16.9	17.9	21.5	23.4	27.3	30.2	33.7	36.1
88	89	90	88	90	87	89	87
23.3	25.7	28.9	32.9	34.2	38.8	38.9	45.4
16.5	18.6	21.2	23.6	25.1	27.5	27.9	31.8
89	91	92	90	92	89	90	88
1 / 1							
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
59.0 / 56.0	58.0 / 55.0	59.0 / 56.0	60.0 / 57.0	60.0 / 57.0	61.5 / 58.5	61.5 / 58.5	62.5 / 59.5
Inverter driven Rotary 1+2	Inverter driven Rotary 1+1+1	Inverter driven Rotary 1+1+1	Inverter driven Rotary 1+1+2	Inverter driven Rotary 1+1+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 2+2+2
FV68S (Ether oil)							
1.03+1.53	1.03+1.03+1.03	1.03+1.03+1.03	1.03+1.03+1.53	1.03+1.03+1.53	1.03+1.53+1.53	1.03+1.53+1.53	1.53+1.53+1.53
27+ [27+27]	27+27+27	27+27+27	27+27+[27+27]	27+27+[27+27]	27+[27+27]+[27+27]	27+[27+27]+[27+27]	[27+27]+[27+27]+[27+27]
8-100	7-100	7-100	6-100	6-100	5-100	5-100	5-100
Propellerx1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1
7,000+9,000	7,000+7,000+7,000	7,000+7,000+8,100	7,000+7,000+9,000	7,000+7,000+9,000	7,000+9,000+9,000	7,000+9,000+9,000	9,000+9,000+9,000
0-80 [0-0.32]							
750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8
R410A / 18.3+22.0	R410A / 18.3+18.3+18.3	R410A / 18.3+18.3+18.3	R410A / 18.3+18.3+22.0	R410A / 18.3+18.3+26.0	R410A / 18.3+22.0+22.0	R410A / 18.3+22.0+26.0	R410A / 22.0+22.0+22.0
Electronic expansion valve							
Outdoor unit cycle def							
37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 3 + 37.8 / 3	37.8 / 2 + 37.8 / 3 + 37.8 / 3	37.8 / 3 + 37.8 / 3 + 37.8 / 3
Yes							
Yes							
Polyester powder double coating							
72-33/64" x 95-9/32" x 39-3/8"	72-33/64" x 144-3/32" x 39-3/8"						
611 + 774	611 + 611 + 611	611 + 611 + 615	611 + 611 + 774	611 + 611 + 778	611 + 774 + 774	611 + 774 + 778	774 + 774 + 774
Cooling: 14-122°FDB, Heating: -13-64°FWB							
1-1/8"	1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-5/8"
5/8"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
7/8"	1 - 1/8"	1 - 1/8"	1 - 1/8"	1 - 1/8"	1 - 1/8"	1 - 1/8"	1 - 1/8"
~1,640							
164 / 131							
38	43	48	52	52	52	52	52
Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	-	Connection tubing [15.88-19.05]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [19.05-22.22]x2 Connection tubing [25.4-28.58]x2	Connection tubing [19.05-22.22]x2 Connection tubing [25.4-28.58]x2	Connection tubing [19.05-22.22]x3 Connection tubing [25.4-28.58]x3
Ivory [2.6Y7.6/1.1]							

# ME 2 SERIES

460V

## ECOi EX™ 2-WAY VRF HEAT PUMP

MODEL NAME				U-72ME2U94	U-96ME2U94	U-120ME2U94	U-144ME2U94	WU-168ME2U94				
Single Model				U-72ME2U94	U-96ME2U94	U-120ME2U94	U-144ME2U94	U-72ME2U94 U-96ME2U94				
Appearance												
Nominal Tons				6	8	10	12	14				
Performance test condition				AHRI Standard 1230								
Cooling capacity				Btu/h	72,000	96,000	120,000	144,000	168,000			
				kW	21.1	28.1	35.2	42.2	49.2			
Heating capacity				Btu/h	81,000	108,000	135,000	162,000	189,000			
				kW	23.7	31.6	39.6	47.5	55.4			
Rating Standard AHRI 1230				Indoor unit		Ducted						
				Cooling	Capacity	Btu/h	72,000	96,000	120,000	144,000	168,000	
					EER		11.9	11.5	11.5	11.0	10.8	
				SCHE			-	-	-	-	-	
				High heating 47°F	Capacity	Btu/h	77,000	103,000	129,000	154,000	180,000	
					COP		3.80	3.73	3.74	3.59	3.40	
				Low heating 17°F	Capacity	Btu/h	52,000	67,000	75,000	100,000	119,000	
					COP		2.81	2.72	2.52	2.49	2.50	
				Power supply				Ø, V/Hz				
				Voltage				3Ø 460V 60Hz				
Electrical ratings Outdoor unit only				V								
Ducted cooling	Running current	A	7.85	10.5	13.7	16.5	20.0					
	Power input	kW	5.55	7.72	9.60	12.1	14.5					
	Power factor	%	89	92	88	92	91					
	Running current	A	7.60	10.2	13.1	15.8	20.0					
	Ducted heating	Power input	kW	5.44	7.46	9.28	11.6	14.5				
		Power factor	%	90	92	89	92	91				
	Starting current		A	1 / 1								
	Minimum circuit ampacity		A	15	17	19	24	-				
Maximum overcurrent protection		A	25	25	25	30	-					
Design pressure				High side	psi	484	484	484	-			
				Low side	psi	236	236	236	236	-		
Operation sound (Normal/Quiet mode)				dB		54.5 / 51.5	58.0 / 55.0	59.5 / 56.5	61.0 / 58.0	60.0 / 57.0		
Compressor				Type/quantity		Inverter driven Rotary×1		Inverter driven Rotary×2		Inverter driven Rotary 1+1		
				Refrigeration oil	Type	A	FV68S (Ether oil)					
					Charge amount	gal	1.03	1.03	1.53	1.53	1.03+1.03	
Crankcase heater		W	27	27	27+27		27+27					
Capacity control range		%	22-100	18-100	13-100	11-100	10-100					
Fan				Type/quantity		Propeller×1		Propeller×1		Propeller/1+1		
				Air flow	CFM	6,000	6,200	7,900	7,900	6,000+6,200		
				External static pressure		Pa (in. WC)	0-80 [0-0.32]					
				Fan motor output		W/Pole #	750 / 8	750 / 8	750 / 8	750 / 8	750+750 / 8	
Refrigerant amount at shipment*2				lbs		R410A / 20.1	R410A / 22.7	R410A / 18.7	R410A / 26.0	R410A / 20.1+22.7		
Refrigerant control				Electronic expansion valve								
Defrost method				Reverse-cycle def								
Coil face area [sq ft] / Number of rows				32.0 / 2	32.0 / 3	37.8 / 2	37.8 / 3	Outdoor unit cycle def	32.0 / 2 + 32.0 / 3			
High pressure switch				Yes								
Overcurrent (CT method)				Yes								
External finish				Polyester powder double coating								
Dimensions H x W x D				inch		72-33/64" x 30-5/16" x 39-3/8"		72-33/64" x 46-29/64" x 39-3/8"		72-33/64" x 62-63/64" x 39-3/8"		
Net weight				lbs		529	578	697	754	529 + 578		
Ambient temperature operating range				Cooling: 14~122°FDB, Heating: -4~64°FWB								
Piping*3				Diameter	Suction	inch	3/4"	7/8"	1-1/8"	1-1/8"	1-1/8"	
					Liquid	inch	3/8"	3/8"	1/2"	1/2"	5/8"	
				Balance	inch	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	
					Discharge	inch	Flared (Liquid,Balance), Brazing (Gas)					-
				Connecting method			~3,280					
				Max total pipe length		Ft	164 / 131					
Elevation difference [OD upper/ OD lower]		Ft	164 / 131									
Maximum allowable indoor unit connection						20	25	32	39	45		
Primary accessories						-	-	Connection tubing [25.4-28.58]	Connection tubing [25.4-28.58]	-		
Color (Munsell code)				Ivory [2.6Y7.6/1.1]								

\*1 If the longest tubing equivalent length exceeds 295 ft. [90m], increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes.

\*2 Width of the product dimension in installation for multiple units is described by using Min unit clearance 60mm. If installation hole pitch is 730mm or using snow-proof ducting. Unit clearance should be 180mm.

\*3 It's necessary to charge additional refrigerant of 70.5 oz [2.0 kg] per one outdoor unit.








WU-192ME2U94	WU-216ME2U94	WU-240ME2U94	WU-264ME2U94	WU-288ME2U94	WU-312ME2U94	WU-336ME2U94	WU-360ME2U94
U-96ME2U94 U-96ME2U94	U-96ME2U94 U-120ME2U94	U-72ME2U94 U-72ME2U94 U-96ME2U94	U-72ME2U94 U-96ME2U94 U-96ME2U94	U-96ME2U94 U-96ME2U94 U-96ME2U94	U-72ME2U94 U-120ME2U94 U-120ME2U94	U-96ME2U94 U-120ME2U94 U-120ME2U94	U-120ME2U94 U-120ME2U94 U-120ME2U94
16	18	20	22	24	26	28	30
AHRI Standard 1230							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
56.3	63.3	70.3	77.4	84.4	91.4	98.4	105.5
216,000	243,000	270,000	297,000	324,000	351,000	378,000	405,000
63.3	71.2	79.1	87.0	94.9	102.8	110.8	118.7
Ducted							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
10.6	10.6	10.6	10.3	10.1	10.2	10.1	10.0
18.4	18.3	18.8	18.5	18.2	18.5	18.2	19.6
-	-	-	-	-	-	-	-
206,000	232,000	258,000	284,000	308,000	334,000	360,000	386,000
3.40	3.30	3.40	3.30	3.30	3.30	3.30	3.50
134,000	142,000	150,000	176,000	200,000	202,000	218,000	226,000
2.50	2.50	2.50	2.40	2.40	2.50	2.50	2.60
3Ø 460V 60Hz 460							
23.2	26.4	29.3	33.0	36.3	40.6	43.9	48.1
17.0	18.9	21.0	23.9	26.6	28.5	31.1	33.7
92	90	90	91	92	88	89	88
22.6	26.6	28.4	32.3	34.7	38.9	41.6	42.3
16.6	19.1	20.6	23.4	25.4	27.6	29.8	30.0
92	90	91	91	92	89	90	89
1 / 1							
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
61.0 / 58.0	62.0 / 59.0	61.0 / 58.0	62.0 / 59.0	63.0 / 60.0	63.5 / 60.5	64.0 / 61.0	64.5 / 61.5
Inverter driven Rotary 1+1	Inverter driven Rotary 1+2	Inverter driven Rotary 1+1+1			Inverter driven Rotary 1+2+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 2+2+2
FV68S [Ether oil]							
1.03+1.03 27+27 9-100	1.03+1.53 27+[27+27] 8-100	1.03+1.03+1.03 27+27+27 7-100	1.03+1.03+1.03 27+27+27 6-100	1.03+1.03+1.03 27+27+27 6-100	1.03+1.53+1.53 27+[27+27]+[27+27] 5-100	1.03+1.53+1.53 27+[27+27]+[27+27] 5-100	1.53+1.53+1.53 [27+27]+[27+27]+[27+27] 5-100
Propeller/1+1 6,200+6,200	Propeller/1+1 6,200+7,900	Propeller/1+1+1 6,000+6,000+6,200	Propeller/1+1+1 6,000+6,200+6,200	Propeller/1+1+1 6,200+6,200+6,200	Propeller/1+1+1 6,000+7,900+7,900	Propeller/1+1+1 6,200+7,900+7,900	Propeller/1+1+1 7,900+7,900+7,900
0-80 [0-0.32]							
750+750 / 8	750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8
R410A / 22.7+22.7	R410A / 22.7+18.7	R410A / 20.1+20.1+22.7	R410A / 20.1+22.7+22.7	R410A / 22.7+22.7+22.7	R410A / 20.1+18.7+18.7	R410A / 22.7+18.7+18.7	R410A / 18.7+18.7+18.7
Electronic expansion valve							
Outdoor unit cycle def							
32.0 / 2 + 32.0 / 3	32.0 / 3 + 37.8 / 2	32.0 / 2 + 32.0 / 2 + 32.0 / 3	32.0 / 2 + 32.0 / 3 + 32.0 / 3	32.0 / 3 + 32.0 / 3 + 32.0 / 3	32.0 / 2 + 37.8 / 2 + 37.8 / 2	32.0 / 3 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 2
Yes							
Polyester powder double coating							
72-33/64" x 62-63/64" x 39-3/8"	72-33/64" x 79-9/64" x 39-3/8"	72-33/64" x 95-43/64" x 39-3/8"			72-33/64" x 127-61/64" x 39-3/8"		72-33/64" x 144-3/32" x 39-3/8"
578 + 578	578 + 697	529 + 529 + 578	529 + 578 + 578	578 + 578 + 578	529 + 697 + 697	578 + 697 + 697	697 + 697 + 697
Cooling: 14~122°FDB, Heating: -4~64°FWB							
1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-5/8"
5/8"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
~3,280							
164 / 131							
164 / 131							
50	55	64	64	64	64	64	64
-	28.58 Tube	-	-	-	28.58 Tubex2	28.58 Tubex2	28.58 Tubex3
Ivory [2.6Y7.6(1.1)]							

# MF 2 SERIES

208-230V

# ECOi EX™ 3-WAY VRF HEAT RECOVERY

MODEL NAME				U-72MF2U9	U-96MF2U9	U-120MF2U9	U-144MF2U9	WU-168MF2U9						
Single Model				U-72MF2U9	U-96MF2U9	U-120MF2U9	U-144MF2U9	U-72MF2U9 U-96MF2U9						
Appearance														
Nominal Tons				6	8	10	12	14						
Performance test condition				AHRI Standard 1230										
Cooling capacity				Btu/h	72,000	96,000	120,000	144,000	168,000					
				kW	21.1	28.1	35.2	42.2	49.2					
Heating capacity				Btu/h	81,000	108,000	135,000	162,000	189,000					
				kW	23.7	31.6	39.6	47.5	55.4					
Rating Standard AHRI 1230				Indoor unit										
				Cooling				Ducted						
								Capacity	Btu/h	72,000	96,000	120,000	144,000	168,000
				EER		13.0	10.9	11.4	10.7	10.7				
				IEER		21.0	21.8	21.2	21.1	19.7				
				SCHE										
				High heating 47°F				Capacity	Btu/h	77,000	103,000	129,000	154,000	180,000
				Low heating 17°F				Capacity	Btu/h	56,000	70,000	95,000	100,000	126,000
COP														
COP														
Power supply				Ø, V/Hz										
Voltage				3Ø 208/230V 60Hz										
Running current				208 / 230										
Electrical ratings Outdoor unit only				Ducted cooling		Running current	A	14.8 / 13.5	23.6 / 21.5	28.1 / 25.7	35.6 / 32.6	42.5 / 38.9		
				Power input		kW	5.00 / 5.00	7.98 / 7.98	9.52 / 9.52	12.2 / 12.2	14.4 / 14.4			
				Power factor		%	94 / 93	94 / 93	94 / 93	95 / 94	94 / 93			
				Running current		A	16.3 / 14.9	24.0 / 22.0	27.1 / 24.8	36.8 / 33.6	45.2 / 41.3			
Ducted heating				Power input		kW	5.58 / 5.58	8.14 / 8.14	9.29 / 9.29	12.6 / 12.6	15.3 / 15.3			
				Power factor		%	95 / 94	94 / 93	95 / 94	95 / 94	94 / 93			
Starting current				A										
Minimum circuit ampacity				A										
Maximum overcurrent protection				A										
Design pressure				High side		psi								
				Low side		psi								
Operation sound (Normal/Quiet mode)				dB										
Compressor				Type/quantity		Inverter driven Rotary×1			Inverter driven Rotary×2		Inverter driven Rotary 1+1			
				Refrigeration oil		Type	A							
				Charge amount		gal	1.03	1.03	1.53	1.53	1.03+1.03			
				Crankcase heater		W	30	30	30	30+30				
Capacity control range				%										
Fan				Type/quantity		Propeller×1			Propeller×1		Propeller×1+1			
				Air flow		CFM	7,000	8,100	9,000	9,000	7,000+8,100			
				External static pressure		Pa (in. WC)	0-80 [0-0.32]							
				Fan motor output		W/Pole #	750 / 8	750 / 8	750 / 8	750 / 8	750+750 / 8			
Refrigerant amount at shipment*1				lbs										
Refrigerant control				Electronic expansion valve										
Defrost method				Reverse-cycle def										
Coil face area (sq ft) / Number of rows				37.8 / 2			37.8 / 3		37.8 / 3		Outdoor unit cycle def 37.8 / 2 + 37.8 / 2			
High pressure switch				Yes										
Overcurrent (CT method)				Yes										
External finish				Polyester powder double coating										
Dimensions H x W x D*2				inch										
Net weight				lbs										
Ambient temperature operating range				Cooling: 14~122°FDB, Heating: -13~64°FWB										
Piping*3				Diameter		Suction								
				Liquid		inch								
				Balance		inch								
				Discharge		inch								
Connecting method				Flared (Discharge, Liquid, Balance), Brazing (Suction)		Flared (Liquid, Balance), Brazing (Discharge, Suction)			-					
Max total pipe length				Ft										
Elevation difference (OD upper/OD lower)				Ft										
Maximum allowable indoor unit connection				14										
Primary accessories				-		Connection tubing [15.88-19.05]		Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]		Connection tubing [15.88-19.05]				
Color (Munsell code)				Ivory [2.6Y7.6/1.1]										

\*1 If the longest tubing equivalent length exceeds 295 ft. [90m], increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes.

\*2 It's necessary to charge additional refrigerant of 70.5 oz [2.0 kg] per one outdoor unit.








WU-192MF2U9	WU-216MF2U9	WU-240MF2U9	WU-264MF2U9	WU-288MF2U9	WU-312MF2U9	WU-336MF2U9	WU-360MF2U9
U-72MF2U9 U-120MF2U9	U-72MF2U9 U-72MF2U9 U-72MF2U9	U-72MF2U9 U-72MF2U9 U-96MF2U9	U-72MF2U9 U-72MF2U9 U-120MF2U9	U-72MF2U9 U-72MF2U9 U-144MF2U9	U-72MF2U9 U-120MF2U9 U-120MF2U9	U-72MF2U9 U-120MF2U9 U-144MF2U9	U-120MF2U9 U-120MF2U9 U-120MF2U9
16	18	20	22	24	26	28	30
AHRI Standard 1230							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
56.3	63.3	70.3	77.4	84.4	91.4	98.4	105.5
216,000	243,000	270,000	297,000	324,000	351,000	378,000	405,000
63.3	71.2	79.1	87.0	94.9	102.8	110.8	118.7
Ducted							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
10.5	11.1	10.3	10.4	9.8	9.6	9.3	9.3
19.0	19.2	19.1	18.5	18.5	18.1	19.3	18.0
25.8	23.6	24.2	22.5	19.3	24.1	23.3	22.8
206,000	232,000	258,000	284,000	300,000	334,000	360,000	386,000
3.40	3.40	3.30	3.27	3.25	3.30	3.50	3.30
148,000	162,000	184,000	192,000	200,000	242,000	256,000	270,000
2.50	2.54	2.51	2.57	2.52	2.40	2.40	2.40
3Ø 208/230V 60Hz							
208 / 230							
49.9 / 45.6	52.9 / 48.3	63.5 / 58.0	69.1 / 63.2	79.8 / 72.9	89.2 / 81.5	99.5 / 91.0	107 / 97.4
16.9 / 16.9	17.9 / 17.9	21.5 / 21.5	23.4 / 23.4	27.3 / 27.3	30.2 / 30.2	33.7 / 33.7	36.1 / 36.1
94 / 93	94 / 93	94 / 93	94 / 93	95 / 94	94 / 93	94 / 93	94 / 93
48.2 / 44.1	54.3 / 49.7	61.9 / 56.6	69.0 / 63.0	73.3 / 67.0	80.4 / 73.4	81.5 / 74.5	92.9 / 84.9
16.5 / 16.5	18.6 / 18.6	21.2 / 21.2	23.26 / 23.6	25.1 / 25.1	27.5 / 27.5	27.9 / 27.9	31.8 / 31.8
95 / 94	95 / 94	95 / 94	95 / 94	95 / 94	95 / 94	95 / 94	95 / 94
1 / 1							
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
59.0 / 56.0	58.0 / 55.0	59.0 / 56.0	60.0 / 57.0	60.0 / 57.0	61.5 / 58.5	61.5 / 58.5	62.5 / 59.5
Inverter driven Rotary 1+2	Inverter driven Rotary 1+1+1	Inverter driven Rotary 1+1+1	Inverter driven Rotary 1+1+2	Inverter driven Rotary 1+1+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 2+2+2
FV68S (Ether oil)							
1.03+1.53	1.03+1.03+1.03	1.03+1.03+1.03	1.03+1.03+1.53	1.03+1.03+1.53	1.03+1.53+1.53	1.03+1.53+1.53	1.53+1.53+1.53
30+ [30+30]	30+30+30	30+30+30	30+30+30+30	30+30+30+30	30+30+30+30	30+30+30+30	30+30+30+30+30
8-100	7-100	7-100	6-100	6-100	5-100	5-100	5-100
Propellerx1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1	Propellerx1+1+1
7,000+9,000	7,000+7,000+7,000	7,000+7,000+8,100	7,000+7,000+9,000	7,000+7,000+9,000	7,000+9,000+9,000	7,000+9,000+9,000	9,000+9,000+9,000
0-80 [0-0.32]							
750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8
R410A / 18.3+22.0	R410A / 18.3+18.3+18.3	R410A / 18.3+18.3+18.3	R410A / 18.3+18.3+22.0	R410A / 18.3+18.3+26.0	R410A / 18.3+22.0+22.0	R410A / 18.3+22.0+26.0	R410A / 22.0+22.0+22.0
Electronic expansion valve							
Outdoor unit cycle def							
37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 2 + 37.8 / 3	37.8 / 2 + 37.8 / 3 + 37.8 / 3	37.8 / 2 + 37.8 / 3 + 37.8 / 3	37.8 / 3 + 37.8 / 3 + 37.8 / 3
Yes							
Yes							
Polyester powder double coating							
72-33/64" x 95-9/32" x 39-3/8"	72-33/64" x 144-3/32" x 39-3/8"						
595 + 752	595 + 595 + 595	595 + 595 + 597	595 + 595 + 752	595 + 595 + 756	595 + 752 + 752	595 + 752 + 756	752 + 752 + 752
Cooling: 14~122°FDB, Heating: -13~64°FDB							
1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-5/8"
5/8"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
7/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"
1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
-	-	-	-	-	-	-	-
~1,640							
164 / 131							
38	43	48	52	52	52	52	52
Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	-	Connection tubing [15.88-19.05]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [19.05-22.22] Connection tubing [25.4-28.58]	Connection tubing [19.05-22.22]x2 Connection tubing [25.4-28.58]x2	Connection tubing [19.05-22.22]x2 Connection tubing [25.4-28.58]x2	Connection tubing [19.05-22.22]x3 Connection tubing [25.4-28.58]x3
Ivory [2.6Y7.6/1.1]							



# ME 2 SERIES

208-230V

## ECOi EX™ 2-WAY VRF HEAT PUMP

MODEL NAME				U-72ME2U9	U-96ME2U9	U-120ME2U9	U-144ME2U9	WU-168ME2U9								
Single Model				U-72ME2U9	U-96ME2U9	U-120ME2U9	U-144ME2U9	U-72ME2U9 +U-96ME2U9								
Appearance																
Nominal Tons				6	8	10	12	14								
Performance test condition				AHRI Standard 1230												
Cooling capacity				Btu/h		72,000	96,000	120,000	144,000	168,000						
				kW		21.1	28.1	35.2	42.2	49.2						
Heating capacity				Btu/h		81,000	108,000	135,000	162,000	189,000						
				kW		23.7	31.6	39.6	47.5	55.4						
Rating Standard AHRI 1230				Indoor unit		Ducted										
				Cooling		Capacity	Btu/h	72,000	96,000	120,000	144,000	168,000				
						EER		11.9	11.5	11.5	11.0	10.8				
						IEER		21.6	20.4	21.4	21.1	18.9				
				SCHE				-	-	-	-	-				
				High heating 47°F		Capacity	Btu/h	77,000	103,000	129,000	154,000	180,000				
						COP		3.80	3.73	3.74	3.59	3.40				
				Low heating 17°F		Capacity	Btu/h	52,000	67,000	75,000	100,000	119,000				
COP		2.81	2.72			2.52	2.49	2.50								
Power supply				Ø, V/Hz												
Voltage				3Ø 208/230V 60Hz												
Running current				208 / 230												
Electrical ratings Outdoor unit only				Ducted cooling		Running current	A	17.7 / 16.2	23.0 / 21.1	28.3 / 25.9	35.7 / 32.3	44.7 / 40.9				
						Power input	kW	5.55 / 5.55	7.72 / 7.72	9.60 / 9.60	12.1 / 12.1	14.5 / 14.5				
						Power factor	%	87 / 86	93 / 92	94 / 93	94 / 94	90 / 89				
				Ducted heating		Running current	A	17.4 / 15.9	22.5 / 20.6	27.4 / 25.0	34.3 / 31.0	44.7 / 40.9				
						Power input	kW	5.44 / 5.44	7.46 / 7.46	9.28 / 9.28	11.6 / 11.6	14.5 / 14.5				
						Power factor	%	87 / 86	92 / 91	94 / 93	94 / 94	90 / 89				
Starting current				A												
Minimum circuit ampacity				A												
Maximum overcurrent protection				A												
Design pressure				High side		psi										
				Low side		psi										
Operation sound (Normal/Quiet mode)				dB												
Compressor				Type/quantity			Inverter driven Rotary×1		Inverter driven Rotary×2		Inverter driven Rotary 1+1					
Refrigeration oil				Type	A											
				Charge amount	gal											
Crankcase heater				W		1.03										
Capacity control range				%		30										
Fan				Type/quantity		Propeller×1		Propeller×1		Propeller×1		Propeller/1+1				
				Air flow		CFM		6,000		6,200		7,900		7,900		
				External static pressure		Pa (in. WC)		0-80 [0-0.32]								
				Fan motor output		W/Pole #		750 / 8		750 / 8		750 / 8		750+750 / 8		
Refrigerant amount at shipment*2				lbs		R410A / 20.1		R410A / 22.7		R410A / 18.7		R410A / 26.0	R410A / 20.1+22.7			
Refrigerant control				Electronic expansion valve												
Defrost method				Reverse-cycle def												
Coil face area (sq ft) / Number of rows				32.0 / 2		32.0 / 3		37.8 / 2		37.8 / 3		Outdoor unit cycle def 32.0 / 2 + 32.0 / 3				
High pressure switch				Yes												
Overcurrent (CT method)				Yes												
External finish				Polyester powder double coating												
Dimensions H x W x D				inch		72-33/64" x 30-5/16" x 39-3/8"		72-33/64" x 46-29/64" x 39-3/8"		72-33/64" x 62-63/64" x 39-3/8"						
Net weight				lbs		503		560		664		721	503 + 560			
Ambient temperature operating range				Cooling: 14~122°FDB, Heating: -4~64°FWB												
Piping				Diameter		Gas		inch		3/4"		7/8"		1-1/8"	1-1/8"	
						Liquid		inch		3/8"		3/8"		1/2"		1/2"
				Balance		inch		1/4"		1/4"		1/4"		1/4"		1/4"
				Connecting method				(Liquid,Balance)Flared,(Gas)Brazing								
Max total pipe length				Ft												
Elevation difference (OD upper/ OD lower)				Ft												
Maximum allowable indoor unit connection				20		25		32		39		45				
Primary accessories				-		-		28.58 Tube		28.58 Tube		-				
Color (Munsell code)				Ivory [2.6Y7.6/1.1]												

\*1 If the longest tubing equivalent length exceeds 295 ft. (90m), increase the sizes of the main tubes by 1 rank for gas tubes and liquid tubes.

\*2 It's necessary to charge additional refrigerant of 70.5 oz (2.0 kg) per one outdoor unit.



WU-192ME2U9	WU-216ME2U9	WU-240ME2U9	WU-264ME2U9	WU-288ME2U9	WU-312ME2U9	WU-336ME2U9	WU-360ME2U9
U-96ME2U9 +U-96ME2U9	U-96ME2U9 +U-120ME2U9	U-72ME2U9 +U-72ME2U9 +U-96ME2U9	U-72ME2U9 +U-96ME2U9 +U-96ME2U9	U-96ME2U9 +U-96ME2U9 +U-96ME2U9	U-72ME2U9 +U-120ME2U9 +U-120ME2U9	U-96ME2U9 +U-120ME2U9 +U-120ME2U9	U-120ME2U9 +U-120ME2U9 +U-120ME2U9
16	18	20	22	24	26	28	30
AHRI Standard 1230							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
56.3	63.3	70.3	77.4	84.4	91.4	98.4	105.5
216,000	243,000	270,000	297,000	324,000	351,000	378,000	405,000
63.3	71.2	79.1	87.0	94.9	102.8	110.8	118.7
Ducted   Non-ducted							
192,000	216,000	240,000	264,000	288,000	312,000	336,000	360,000
10.6	10.6	10.6	10.3	10.1	10.2	10.1	10.0
18.4	18.3	18.8	18.5	18.2	18.5	18.2	19.6
-	-	-	-	-	-	-	-
206,000	232,000	258,000	284,000	308,000	334,000	360,000	386,000
3.40	3.30	3.40	3.30	3.30	3.30	3.30	3.50
134,000	142,000	150,000	176,000	200,000	202,000	218,000	226,000
2.50	2.50	2.50	2.40	2.40	2.50	2.50	2.60
3Ø 208/230V 60Hz							
208 / 230							
50.7 / 46.4	55.8 / 51.0	65.5 / 59.9	72.9 / 66.7	79.4 / 72.6	86.0 / 78.6	91.8 / 83.9	99.5 / 91.0
17.0 / 17.0	18.9 / 18.9	21.0 / 21.0	23.9 / 23.9	26.6 / 26.6	28.5 / 28.5	31.1 / 31.1	33.7 / 33.7
93 / 92	94 / 93	89 / 88	91 / 90	93 / 92	92 / 91	94 / 93	94 / 93
50.1 / 45.8	57.0 / 52.1	64.2 / 58.8	71.4 / 65.3	76.6 / 70.1	83.3 / 76.1	88.9 / 81.3	88.6 / 81.0
16.6 / 16.6	19.1 / 19.1	20.6 / 20.6	23.4 / 23.4	25.4 / 25.4	27.6 / 27.6	29.8 / 29.8	30.0 / 30.0
92 / 91	93 / 92	89 / 88	91 / 90	92 / 91	92 / 91	93 / 92	94 / 93
1 / 1							
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
61.0 / 58.0	62.0 / 59.0	61.0 / 58.0	62.0 / 59.0	63.0 / 60.0	63.5 / 60.5	64.0 / 61.0	64.5 / 61.5
Inverter driven Rotary 1+1	Inverter driven Rotary 1+2	Inverter driven Rotary 1+1+1			Inverter driven Rotary 1+2+2	Inverter driven Rotary 1+2+2	Inverter driven Rotary 2+2+2
FV68S (Ether oil)							
1.03+1.03	1.03+1.53	1.03+1.03+1.03	1.03+1.03+1.03	1.03+1.03+1.03	1.03+1.53+1.53	1.03+1.53+1.53	1.53+1.53+1.53
30+30	30+[30+30]	30+30+30	30+30+30	30+30+30	30+[30+30]+[30+30]	30+[30+30]+[30+30]	[30+30]+[30+30]+[30+30]
9-100	8-100	7-100	6-100	6-100	5-100	5-100	5-100
Propeller/1+1	Propeller/1+1	Propeller/1+1+1	Propeller/1+1+1	Propeller/1+1+1	Propeller/1+1+1	Propeller/1+1+1	Propeller/1+1+1
6,200+6,200	6,200+7,900	6,000+6,000+6,200	6,000+6,200+6,200	6,200+6,200+6,200	6,000+7,900+7,900	6,200+7,900+7,900	7,900+7,900+7,900
0-80 [0-0.32]							
750+750 / 8	750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8	750+750+750 / 8
R410A / 22.7+22.7	R410A / 22.7+18.7	R410A / 20.1+20.1+22.7	R410A / 20.1+22.7+22.7	R410A / 22.7+22.7+22.7	R410A / 20.1+18.7+18.7	R410A / 22.7+18.7+18.7	R410A / 18.7+18.7+18.7
Electronic expansion valve							
Outdoor unit cycle def							
32.0 / 3 + 32.0 / 3	32.0 / 3 + 37.8 / 2	32.0 / 2 + 32.0 / 2 + 32.0 / 3	32.0 / 2 + 32.0 / 3 + 32.0 / 3	32.0 / 3 + 32.0 / 3 + 32.0 / 3	32.0 / 2 + 37.8 / 2 + 37.8 / 2	32.0 / 3 + 37.8 / 2 + 37.8 / 2	37.8 / 2 + 37.8 / 2 + 37.8 / 2
Yes							
Yes							
Polyester powder double coating							
72-33/64" x 62-63/64" x 39-3/8"	72-33/64" x 79-9/64" x 39-3/8"	72-33/64" x 95-43/64" x 39-3/8"			72-33/64" x 127-61/64" x 39-3/8"		72-33/64" x 144-3/32" x 39-3/8"
560 + 560	560 + 664	503 + 503 + 560	503 + 560 + 560	560 + 560 + 560	503 + 664 + 664	560 + 664 + 664	664 + 664 + 664
Cooling: 14-122°FDB, Heating: -4-64°FDB							
1-1/8"	1-1/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-5/8"
5/8"	5/8"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
(Liquid,Balance)Flared,(Gas)Brazeing							
-3,280							
164 / 131							
50	55	64	64	64	64	64	64
-	28.58 Tube	-	-	-	28.58 Tubex2	28.58 Tubex2	28.58 Tubex3
Ivory [2.6Y7.6/1.1]							

# LE SERIES

# MINI ECOi™

## VRF HEAT PUMP

208-230V



DESCRIPTION	U-36LE1U6			U-52LE1U6		
<b>POWER SOURCE</b>	208-230V/1PH/60Hz			208-230V/1PH/60Hz		
<b>PERFORMANCE</b>	Ducted	Non-Ducted	Mix	Ducted	Non-Ducted	Mix
COOLING CAPACITY	37,000	39,000	38,000	51,500	52,000	51,750
SEER	16.6	18.6	15.0	16.1	17.8	16.0
HEATING CAPACITY	38,500	43,000	40,750	58,000	58,500	58,000
HSPF	9.3	8.4	8.8	8.3	8.3	8.6
AIR CIRCULATION (HI)	3,530 CFM			3,530 CFM		
<b>ELECTRICAL RATINGS</b>	COOLING		HEATING	COOLING		HEATING
VOLTAGE RATING	208 / 230 V		208 / 230 V	208 / 230 V		208 / 230 V
AVAILABLE VOLTAGE RANGE	187—253 V		187—253 V	187—253 V		187—253 V
RUNNING AMPERES	14.6 / 13.6 A		14.6 / 13.6 A	23.5 / 21.9 A		23.5 / 21.9 A
MAX. RUNNING AMPERES	23.6 / 23.6 A		23.6 / 23.6 A	28 / 28 A		28 / 28 A
POWER INPUT	2.76 / 2.76 kW		2.88 / 2.88 kW	4.57 / 4.57 kW		4.58 / 4.58 kW
MAX. POWER INPUT	4.85 / 4.85 kW		4.85 / 4.85 kW	5.72 / 5.72 kW		5.72 / 5.72 kW
MIN. CIRCUIT AMPACITY	18 A			29 A		
MAX. OVERCURRENT PROTECTION (MOCP)	30 A			50 A		
<b>REFRIGERANT TUBING</b>						
LIMIT OF TUBING LENGTH	656 ft			656 ft		
LIMIT OF ELEVATION DIFFERENCE BETWEEN THE 2 UNITS	Outdoor unit is higher than indoor unit: 164 Outdoor unit is lower than indoor unit: 131			Outdoor unit is higher than indoor unit: 164 Outdoor unit is lower than indoor unit: 131		
<b>REFRIGERANT TUBE DIAMETER</b>						
LIQUID TUBE IN.	3/8"			3/8"		
GAS TUBE IN.	5/8"			3/4"		
<b>UNIT DIMENSIONS</b>						
INCHES (") / LBS.	Height/ Width/ Depth/ Net Weight 49" / 37" / 14" / 229 lbs.			Height/ Width/ Depth/ Net Weight 49" / 37" / 14" / 229 lbs.		
SHIPPING WEIGH / VOLUME	247 lbs. / 19.8 ft. <sup>3</sup>			247 lbs. / 19.8 ft. <sup>3</sup>		
EXTERNAL AIR TEMP. OPERATION RANGE	Cooling:14 to 113 (DB)/Heating: -4 to 59 (WB)			Cooling:14 to 113 (DB)/Heating: -4 to 59 (WB)		
<b>CONNECTABLE INDOOR UNITS (MAX)</b>	6			9		
<b>CERTIFICATION STANDARD</b>	AHRI 210 / 240					

# VRF 2 WAY HEAT PUMP 208/230 CROSS REFERENCE

## SINGLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
CHX03652	U-36LE1U6	U-36LE1U6	36,000	3
CHX05252	U-52LE1U6	U-52LE1U6	52,000	4.5
CHDX07263	U-72ME1U9	U-72ME2U9	72,000	6
CHDX09663	U-96ME1U9	U-96ME2U9	96,000	8
-	-	U-120ME2U9	120,000	10
CHDX14053	-	U-144ME2U9	144,000	12

## MULTIPLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
WCHDX14463 (6 + 6)	WU-144ME1U9 (6 + 6)	U-144ME2U9	144,000	12
WCHDX16863 (6 + 8)	WU-168ME1U9 (6 + 8)	WU-168ME2U9 (6 + 8)	168,000	14
WCHDX19263 (8 + 8)	WU-192ME1U9 (8 + 8)	WU-192ME2U9 (8 + 8)	192,000	16
WCHDX21663 (6 + 6 + 6)	WU-216ME1U9 (6 + 6 + 6)	WU-216ME2U9 (8 + 10)	216,000	18
WCHDX24063 (6 + 6 + 8)	WU-240ME1U9 (6 + 6 + 8)	WU-240ME2U9 (6 + 6 + 8)	240,000	20
WCHDX26463 (6 + 8 + 8)	WU-264ME1U9 (6 + 8 + 8)	WU-264ME2U9 (6 + 8 + 8)	264,000	22
WCHDX28863 (8 + 8 + 8)	WU-288ME1U9 (8 + 8 + 8)	WU-288ME2U9 (8 + 8 + 8)	288,000	24
		WU-312ME2U9 (6 + 10 + 10)	312,000	26
		WU-336ME2U9 (8 + 10 + 10)	336,000	28
		WU-360ME2U9 (10 + 10 + 10)	360,000	30



Sanyo to Panasonic Merger  
October 2011



Newer outdoor units are not backwards compatible with previous generation outdoor units on installations where multiple outdoor units are piped together.

# IEER INTEGRATED ENERGY EFFICIENCY RATIO

Part load performance of commercial HVAC systems was represented as Integrated Part Load Performance (IPLV) which was used until January 1, 2010. Then a new methodology was adopted and defined as Integrated Energy Efficiency Ratio (IEER).

IEER is intended to be used as a representation of part load performance for energy comparisons of similar systems. For Variable Refrigerant Flow (VRF) Multi Split systems AHRI Standard 1230 defines the process to calculate IEER. In its most simplistic form IEER is calculated by operating the system at 4 different capacities and applying a formula. The basic calculation is as follows:

$$\text{IEER} = (0.02 * A) + (0.617 * B) + (0.238 * C) + (0.125 * D)$$

#### Where as:

- A = EER at 100% net capacity at AHRI standard condition (95°F)
- B = EER at 75% net capacity and reduced ambient (81.5°F)
- C = EER at 50% net capacity and reduced ambient (68°F)
- D = EER at 25% net capacity and reduced ambient (65°F)

#### Example:

$$\begin{aligned} A &= 11.0 \text{ EER} & B &= 16.0 \text{ EER} & C &= 19.0 \text{ EER} & D &= 23.0 \text{ EER} \\ \text{IEER} &= (0.02 * 11) + (0.617 * 16) + (0.238 * 19) + (0.125 * 23) \\ \text{IEER} &= 0.2 + 9.8 + 4.5 + 2.9 = 17.4 \text{ IEER} \end{aligned}$$

#### Some points to recognize from this calculation:

1. Full load EER (100% capacity) represents only 2% of the overall IEER rating because the system would rarely operate at this condition.
2. As overall capacity is reduced the system EER increases significantly.
3. An ECOi system operating at 50% part load could result in an efficiency increase of more than 70% over the rated full load EER value.
4. Your actual efficiency could exceed the IEER rating depending upon equipment sizing, environment and use of the system.



# ECOi SYSTEM CERTIFIED EFFICIENCY RATINGS: 3 WAY

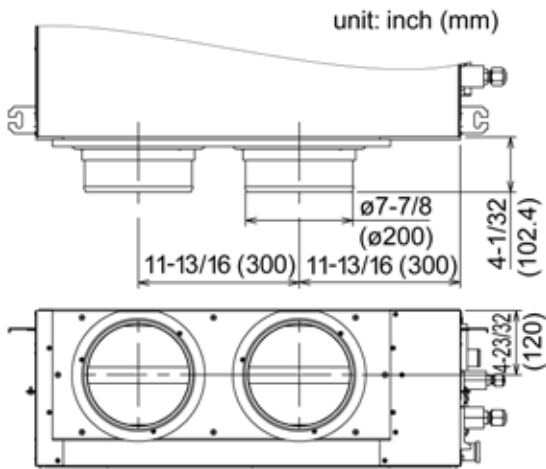
System Model #	Module Model #1	Module Model #2	Module Model #3	Indoor Type	Cooling Capacity (95F)	EER (95F)	IEER	SCHE	High Heat (47F)	High COP (47F)	Low Heat (17F)	Low COP (17F)
U-72MF2U9	U-72MF2U9			Ducted Indoor Units	72000	13.0	21.0	27.5	77000	3.72	56000	2.76
U-72MF2U9	U-72MF2U9			Non-Ducted Indoor Units	72000	14.0	27.0	30.1	77000	4.32	61000	2.65
U-96MF2U9	U-96MF2U9			Ducted Indoor Units	96000	10.9	21.8	29.6	103000	3.40	70000	2.49
U-96MF2U9	U-96MF2U9			Non-Ducted Indoor Units	96000	13.2	26.8	28.3	103000	3.88	64000	2.76
U-120MF2U9	U-120MF2U9			Ducted Indoor Units	120000	11.4	21.2	29.1	129000	3.71	95000	2.56
U-120MF2U9	U-120MF2U9			Non-Ducted Indoor Units	120000	12.4	25.0	29.4	129000	3.91	95000	2.52
U-144MF2U9	U-144MF2U9			Ducted Indoor Units	144000	10.7	21.1	28.3	154000	3.29	100000	2.47
U-144MF2U9	U-144MF2U9			Non-Ducted Indoor Units	144000	10.8	25.3	28.0	154000	3.44	96000	2.59
WU-168MF2U9	U-72MF2U9	U-96MF2U9		Ducted Indoor Units	168000	10.7	19.7	26.2	180000	3.20	126000	2.50
WU-168MF2U9	U-72MF2U9	U-96MF2U9		Non-Ducted Indoor Units	168000	11.8	25.1	27.0	176000	3.40	118000	2.77
WU-192MF2U9	U-96MF2U9	U-120MF2U9		Ducted Indoor Units	192000	10.5	19.0	25.8	206000	3.40	148000	2.50
WU-192MF2U9	U-96MF2U9	U-120MF2U9		Non-Ducted Indoor Units	192000	11.0	23.6	24.9	202000	3.48	146000	2.62
WU-216MF2U9	U-96MF2U9	U-72MF2U9	U-72MF2U9	Ducted Indoor Units	216000	11.1	19.2	23.6	232000	3.40	162000	2.54
WU-216MF2U9	U-96MF2U9	U-72MF2U9	U-72MF2U9	Non-Ducted Indoor Units	216000	11.7	24.3	23.8	224000	3.61	164000	2.66
WU-240MF2U9	U-72MF2U9	U-72MF2U9	U-96MF2U9	Ducted Indoor Units	240000	10.3	19.1	24.2	258000	3.30	184000	2.51
WU-240MF2U9	U-72MF2U9	U-72MF2U9	U-96MF2U9	Non-Ducted Indoor Units	240000	11.3	24.0	23.5	250000	3.48	176000	2.64
WU-264MF2U9	U-72MF2U9	U-72MF2U9	U-120MF2U9	Ducted Indoor Units	264000	10.4	18.5	22.5	284000	3.27	192000	2.57
WU-264MF2U9	U-72MF2U9	U-72MF2U9	U-120MF2U9	Non-Ducted Indoor Units	264000	10.7	23.0	23.2	276000	3.46	186000	2.58
WU-288MF2U9	U-96MF2U9	U-72MF2U9	U-144MF2U9	Ducted Indoor Units	288000	9.8	18.5	19.3	300000	3.25	200000	2.52
WU-288MF2U9	U-96MF2U9	U-72MF2U9	U-144MF2U9	Non-Ducted Indoor Units	288000	10.0	22.8	21.6	300000	3.28	192000	2.52
WU-312MF2U9	U-72MF2U9	U-120MF2U9	U-120MF2U9	Ducted Indoor Units	312000	9.6	18.1	24.1	334000	3.30	242000	2.40
WU-312MF2U9	U-72MF2U9	U-120MF2U9	U-120MF2U9	Non-Ducted Indoor Units	312000	10.0	20.4	21.2	324000	3.41	198000	2.40
WU-336MF2U9	U-96MF2U9	U-120MF2U9	U-144MF2U9	Ducted Indoor Units	336000	9.3	19.3	23.3	360000	3.50	256000	2.40
WU-336MF2U9	U-96MF2U9	U-120MF2U9	U-144MF2U9	Non-Ducted Indoor Units	336000	9.5	20.2	20.8	350000	3.24	204000	2.37
WU-360MF2U9	U-120MF2U9	U-120MF2U9	U-120MF2U9	Ducted Indoor Units	360000	9.3	18.0	22.8	386000	3.30	270000	2.40
WU-360MF2U9	U-120MF2U9	U-120MF2U9	U-120MF2U9	Non-Ducted Indoor Units	360000	9.8	19.9	20.9	376000	3.42	210000	2.33
U-72MF2U94	U-72MF2U94			Ducted Indoor Units	72000	13.0	21.0	27.5	77000	3.72	56000	2.76
U-72MF2U94	U-72MF2U94			Non-Ducted Indoor Units	72000	14.0	27.0	30.1	77000	4.32	61000	2.65
U-96MF2U94	U-96MF2U94			Ducted Indoor Units	96000	10.9	21.8	29.6	103000	3.40	70000	2.49
U-96MF2U94	U-96MF2U94			Non-Ducted Indoor Units	96000	13.2	26.8	28.3	103000	3.88	64000	2.76
U-120MF2U94	U-120MF2U94			Ducted Indoor Units	120000	11.4	21.2	29.1	129000	3.71	95000	2.56
U-120MF2U94	U-120MF2U94			Non-Ducted Indoor Units	120000	12.4	25.0	29.4	129000	3.91	95000	2.52
U-144MF2U94	U-144MF2U94			Ducted Indoor Units	144000	10.7	21.1	28.3	154000	3.29	100000	2.47
U-144MF2U94	U-144MF2U94			Non-Ducted Indoor Units	144000	10.8	25.3	28.0	154000	3.44	96000	2.59
WU-168MF2U94	U-72MF2U94	U-96MF2U94		Ducted Indoor Units	168000	10.7	19.7	26.2	180000	3.20	126000	2.50
WU-168MF2U94	U-72MF2U94	U-96MF2U94		Non-Ducted Indoor Units	168000	11.8	25.1	27.0	176000	3.40	118000	2.77
WU-192MF2U94	U-72MF2U94	U-120MF2U94		Ducted Indoor Units	192000	10.5	19.0	25.8	206000	3.40	148000	2.50
WU-192MF2U94	U-72MF2U94	U-120MF2U94		Non-Ducted Indoor Units	192000	11.0	23.6	24.9	202000	3.48	146000	2.62
WU-216MF2U94	U-72MF2U94	U-72MF2U94	U-72MF2U94	Ducted Indoor Units	216000	11.1	19.2	23.6	232000	3.40	162000	2.54
WU-216MF2U94	U-72MF2U94	U-72MF2U94	U-72MF2U94	Non-Ducted Indoor Units	216000	11.7	24.3	23.8	224000	3.61	164000	2.66
WU-240MF2U94	U-72MF2U94	U-72MF2U94	U-96MF2U94	Ducted Indoor Units	240000	10.3	19.1	24.2	258000	3.30	184000	2.51
WU-240MF2U94	U-72MF2U94	U-72MF2U94	U-96MF2U94	Non-Ducted Indoor Units	240000	11.3	24.0	23.5	250000	3.48	176000	2.64
WU-264MF2U94	U-72MF2U94	U-72MF2U94	U-120MF2U94	Ducted Indoor Units	264000	10.4	18.5	22.5	284000	3.27	192000	2.57
WU-264MF2U94	U-72MF2U94	U-72MF2U94	U-120MF2U94	Non-Ducted Indoor Units	264000	10.7	23.0	23.2	276000	3.46	186000	2.58
WU-288MF2U94	U-72MF2U94	U-72MF2U94	U-144MF2U94	Ducted Indoor Units	288000	9.8	18.5	19.3	300000	3.25	200000	2.52
WU-288MF2U94	U-72MF2U94	U-72MF2U94	U-144MF2U94	Non-Ducted Indoor Units	288000	10.0	22.8	21.6	300000	3.28	192000	2.52
WU-312MF2U94	U-72MF2U94	U-120MF2U94	U-120MF2U94	Ducted Indoor Units	312000	9.6	18.1	24.1	334000	3.30	242000	2.40
WU-312MF2U94	U-72MF2U94	U-120MF2U94	U-120MF2U94	Non-Ducted Indoor Units	312000	10.0	20.4	21.2	324000	3.41	198000	2.40
WU-336ME2U94	U-96ME2U94	U-120ME2U94	U-120ME2U94	Ducted Indoor Units	336000	9.3	19.3	23.3	360000	3.50	256000	2.40
WU-336ME2U94	U-96ME2U94	U-120ME2U94	U-120ME2U94	Non-Ducted Indoor Units	336000	9.5	20.2	20.8	350000	3.24	204000	2.37
WU-360MF2U94	U-120MF2U94	U-120MF2U94	U-120MF2U94	Ducted Indoor Units	360000	9.3	18.0	22.8	386000	3.30	270000	2.40
WU-360MF2U94	U-120MF2U94	U-120MF2U94	U-120MF2U94	Non-Ducted Indoor Units	360000	9.8	19.9	20.9	376000	3.42	210000	2.33

# ECOi SYSTEM CERTIFIED EFFICIENCY RATINGS: **2 WAY**

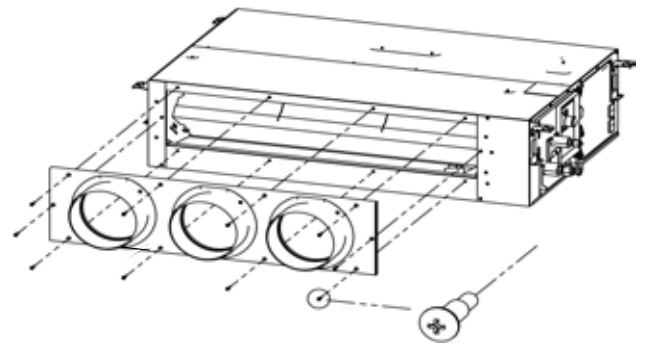
System Model #	Module Model #1	Module Model #2	Module Model #3	Indoor Type	Cooling Capacity (95F)	EER (95F)	IEER	High Heat (47F)	High COP (47F)	Low Heat (17F)	Low COP (17F)
U-72ME2U9	U-72ME2U9			Ducted Indoor Units	72000	11.9	21.6	77000	3.80	52000	2.81
U-72ME2U9	U-72ME2U9			Non-Ducted Indoor Units	72000	14.6	29.4	77000	4.36	52000	2.89
U-96ME2U9	U-96ME2U9			Ducted Indoor Units	96000	11.5	20.4	103000	3.73	67000	2.72
U-96ME2U9	U-96ME2U9			Non-Ducted Indoor Units	96000	14.0	28.5	103000	4.29	67000	2.88
U-120ME2U9	U-120ME2U9			Ducted Indoor Units	120000	11.5	21.4	129000	3.74	75000	2.52
U-120ME2U9	U-120ME2U9			Non-Ducted Indoor Units	120000	13.3	29.3	129000	4.10	75000	2.75
U-144ME2U9	U-144ME2U9			Ducted Indoor Units	144000	11.0	21.1	154000	3.59	100000	2.49
U-144ME2U9	U-144ME2U9			Non-Ducted Indoor Units	144000	12.0	28.0	154000	3.74	100000	2.60
WU-168ME2U9	U-72ME2U9	U-96ME2U9		Ducted Indoor Units	168000	10.8	18.9	180000	3.40	119000	2.50
WU-168ME2U9	U-72ME2U9	U-96ME2U9		Non-Ducted Indoor Units	168000	12.2	23.5	180000	3.77	119000	2.44
WU-192ME2U9	U-96ME2U9	U-96ME2U9		Ducted Indoor Units	192000	10.6	18.4	206000	3.40	134000	2.50
WU-192ME2U9	U-96ME2U9	U-96ME2U9		Non-Ducted Indoor Units	192000	11.5	22.2	206000	3.55	134000	2.41
WU-216ME2U9	U-96ME2U9	U-120ME2U9		Ducted Indoor Units	216000	10.6	18.3	232000	3.30	142000	2.50
WU-216ME2U9	U-96ME2U9	U-120ME2U9		Non-Ducted Indoor Units	216000	11.0	21.6	230000	3.40	142000	2.34
WU-240ME2U9	U-72ME2U9	U-72ME2U9	U-96ME2U9	Ducted Indoor Units	240000	10.6	18.8	258000	3.40	150000	2.50
WU-240ME2U9	U-72ME2U9	U-72ME2U9	U-96ME2U9	Non-Ducted Indoor Units	240000	11.4	21.5	256000	3.41	150000	2.45
WU-264ME2U9	U-72ME2U9	U-96ME2U9	U-96ME2U9	Ducted Indoor Units	264000	10.3	18.5	284000	3.30	176000	2.40
WU-264ME2U9	U-72ME2U9	U-96ME2U9	U-96ME2U9	Non-Ducted Indoor Units	264000	11.0	20.8	282000	3.31	176000	2.37
WU-288ME2U9	U-96ME2U9	U-96ME2U9	U-96ME2U9	Ducted Indoor Units	288000	10.1	18.2	308000	3.30	200000	2.40
WU-288ME2U9	U-96ME2U9	U-96ME2U9	U-96ME2U9	Non-Ducted Indoor Units	288000	10.8	20.3	308000	3.25	200000	2.30
WU-312ME2U9	U-72ME2U9	U-120ME2U9	U-120ME2U9	Ducted Indoor Units	312000	10.2	18.5	334000	3.30	202000	2.50
WU-312ME2U9	U-72ME2U9	U-120ME2U9	U-120ME2U9	Non-Ducted Indoor Units	312000	10.4	20.2	334000	3.32	204000	2.21
WU-336ME2U9	U-96ME2U9	U-120ME2U9	U-120ME2U9	Ducted Indoor Units	336000	10.1	18.2	360000	3.30	218000	2.50
WU-336ME2U9	U-96ME2U9	U-120ME2U9	U-120ME2U9	Non-Ducted Indoor Units	336000	10.3	19.8	360000	3.27	216000	2.21
WU-360ME2U9	U-120ME2U9	U-120ME2U9	U-120ME2U9	Ducted Indoor Units	360000	10.0	19.6	386000	3.50	226000	2.60
WU-360ME2U9	U-120ME2U9	U-120ME2U9	U-120ME2U9	Non-Ducted Indoor Units	360000	10.1	19.6	384000	3.25	226000	2.20
U-72ME2U94	U-72ME2U94			Ducted Indoor Units	72000	11.9	21.6	77000	3.80	52000	2.81
U-72ME2U94	U-72ME2U94			Non-Ducted Indoor Units	72000	14.6	29.4	77000	4.36	52000	2.89
U-96ME2U94	U-96ME2U94			Ducted Indoor Units	96000	11.5	20.4	103000	3.73	67000	2.72
U-96ME2U94	U-96ME2U94			Non-Ducted Indoor Units	96000	14.0	28.5	103000	4.29	67000	2.88
U-120ME2U94	U-120ME2U94			Ducted Indoor Units	120000	11.5	21.4	129000	3.74	75000	2.52
U-120ME2U94	U-120ME2U94			Non-Ducted Indoor Units	120000	13.3	29.3	129000	4.10	75000	2.75
U-144ME2U94	U-144ME2U94			Ducted Indoor Units	144000	11.0	21.1	154000	3.59	100000	2.49
U-144ME2U94	U-144ME2U94			Non-Ducted Indoor Units	144000	12.0	28.0	154000	3.74	100000	2.60
WU-168ME2U94	U-72ME2U94	U-96ME2U94		Ducted Indoor Units	168000	10.8	18.9	180000	3.40	119000	2.50
WU-168ME2U94	U-72ME2U94	U-96ME2U94		Non-Ducted Indoor Units	168000	12.2	23.5	180000	3.77	119000	2.44
WU-192ME2U94	U-96ME2U94	U-96ME2U94		Ducted Indoor Units	192000	10.6	18.4	206000	3.40	134000	2.50
WU-192ME2U94	U-96ME2U94	U-96ME2U94		Non-Ducted Indoor Units	192000	11.5	22.2	206000	3.55	134000	2.41
WU-216ME2U94	U-96ME2U94	U-120ME2U94		Ducted Indoor Units	216000	10.6	18.3	232000	3.30	142000	2.50
WU-216ME2U94	U-96ME2U94	U-120ME2U94		Non-Ducted Indoor Units	216000	11.0	21.6	230000	3.40	142000	2.34
WU-240ME2U94	U-72ME2U94	U-72ME2U94	U-96ME2U94	Ducted Indoor Units	240000	10.6	18.8	258000	3.40	150000	2.50
WU-240ME2U94	U-72ME2U94	U-72ME2U94	U-96ME2U94	Non-Ducted Indoor Units	240000	11.4	21.5	256000	3.41	150000	2.45
WU-264ME2U94	U-72ME2U94	U-96ME2U94	U-96ME2U94	Ducted Indoor Units	264000	10.3	18.5	284000	3.30	176000	2.40
WU-264ME2U94	U-72ME2U94	U-96ME2U94	U-96ME2U94	Non-Ducted Indoor Units	264000	11.0	20.8	282000	3.31	176000	2.37
WU-288ME2U94	U-96ME2U94	U-96ME2U94	U-96ME2U94	Ducted Indoor Units	288000	10.1	18.2	308000	3.30	200000	2.40
WU-288ME2U94	U-96ME2U94	U-96ME2U94	U-96ME2U94	Non-Ducted Indoor Units	288000	10.8	20.3	308000	3.25	200000	2.30
WU-312ME2U94	U-72ME2U94	U-120ME2U94	U-120ME2U94	Ducted Indoor Units	312000	10.2	18.5	334000	3.30	202000	2.50
WU-312ME2U94	U-72ME2U94	U-120ME2U94	U-120ME2U94	Non-Ducted Indoor Units	312000	10.4	20.2	334000	3.32	204000	2.21
WU-336ME2U94	U-96ME2U94	U-120ME2U94	U-120ME2U94	Ducted Indoor Units	336000	10.1	18.2	360000	3.30	218000	2.50
WU-336ME2U94	U-96ME2U94	U-120ME2U94	U-120ME2U94	Non-Ducted Indoor Units	336000	10.3	19.8	360000	3.27	216000	2.21
WU-360ME2U94	U-120ME2U94	U-120ME2U94	U-120ME2U94	Ducted Indoor Units	360000	10.0	19.6	386000	3.50	226000	2.60
WU-360ME2U94	U-120ME2U94	U-120ME2U94	U-120ME2U94	Non-Ducted Indoor Units	360000	10.1	19.6	384000	3.25	226000	2.20

# LE SERIES MINI ECOi™ SINGLE PHASE 2 WAY VRF HEAT PUMP SERIES

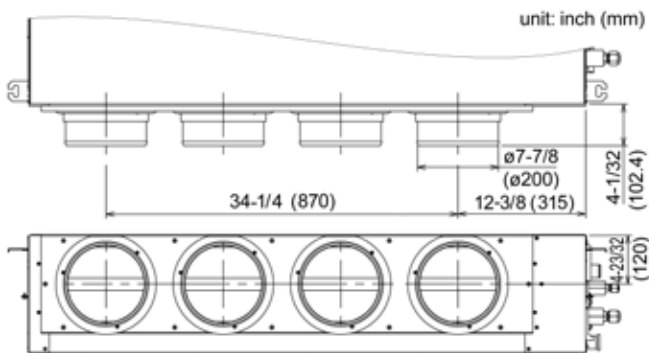
System Model Number	Indoor Unit Rating Type	High Cooling 95F			High Heating 47F		Low Heating 17F
		Capacity (Btu/h)	EER(95F)	SEER	Capacity (Btu/h)	HSPF	Capacity (Btu/h)
U-36LE1U6	Non-Ducted	39,000	11.7	18.6	43,000	8.4	25,600
U-36LE1U6	Ducted	37,000	11.0	16.6	38,500	9.3	21,200
U-36LE1U6	Mixed	38,000	11.35	17.6	40,750	8.85	23,400
U-52LE1U6	Ducted	51,500	10.1	16.1	58,000	8.3	21,200
U-52LE1U6	Non-Ducted	52,000	10.0	17.8	52,500	8.3	31,200
U-52LE1U6	Mixed	51,750	10.05	16.95	55,250	8.3	26,200



**Duct Flange**  
CZ-56DAF2



**Duct Flange**  
CZ-90DAF2



**Duct Flange**  
CZ-160DAF2



**Installation Example**

Duct Flanges utilized with the MF type indoor units as referenced on P.25

# VRF 3 WAY HEAT RECOVERY 208/230 CROSS REFERENCE

## SINGLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
CHDZ07263	U-72MF1U9	U-72MF2U9	72,000	6
CHDZ09663	U-96MF1U9	U-96MF2U9	96,000	8
-	-	U-120MF2U9	120,000	10
CHDZ14053	-	U-144MF2U9	144,000	12

## MULTIPLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
WCHDZ14463 (6 + 6)	WU-144MF1U9 (6 + 6)	U-144MF2U9	144,000	12
WCHDZ16863 (6 + 8)	WU-168MF1U9 (6 + 8)	WU-168MF2U9 (6 + 8)	168,000	14
WCHDZ19263 (8 + 8)	WU-192MF1U9 (8 + 8)	WU-192MF2U9 (6 + 10)	192,000	16
WCHDZ21663 (6 + 6 + 6)	WU-216MF1U9 (6 + 6 + 6)	WU-216MF2U9 (6 + 6 + 6)	216,000	18
WCHDZ24063 (6 + 6 + 8)	WU-240MF1U9 (6 + 6 + 8)	WU-240MF2U9 (6 + 6 + 8)	240,000	20
WCHDZ26463 (6 + 8 + 8)	WU-264MF1U9 (6 + 8 + 8)	WU-264MF2U9 (6 + 6 + 10)	264,000	22
WCHDZ28863 (8 + 8 + 8)	WU-288MF1U9 (8 + 8 + 8)	WU-288MF2U9 (6 + 6 + 12)	288,000	24
		WU-312MF2U9 (6 + 10 + 10)	312,000	26
		WU-336MF2U9 (6 + 10 + 12)	336,000	28
		WU-360MF2U9 (10 + 10 + 10)	360,000	30



Newer outdoor units are not backwards compatible with previous generation outdoor units on installations where multiple outdoor units are piped together.

# VRF 2 WAY HEAT PUMP 460 CROSS REFERENCE

## SINGLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
INTENTIONALLY BLANK		U-72ME2U94	72,000	6
-	-	U-96ME2U94	96,000	8
-	-	U-120ME2U94	120,000	10
-	-	U-144ME2U94	144,000	12

## MULTIPLE OUTDOOR UNITS

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	BTU CAPACITY	TONNAGE
INTENTIONALLY BLANK		WU-168ME2U94 (6 + 8)	168,000	14
-	-	WU-192ME2U94 (6 + 10)	192,000	16
-	-	WU-216ME2U94 (8 + 10)	216,000	18
-	-	WU-240ME2U94 (10 + 10)	240,000	20
-	-	WU-264ME2U94 (10 + 12)	264,000	22
-	-	WU-288MF2U94 (12 + 12)	288,000	24
-	-	WU-312MF2U94 (6 + 10 + 10)	312,000	26
-	-	WU-336MF2U94 (8 + 10 + 10)	336,000	28
-	-	WU-360MF2U94 (10 + 10 + 10)	360,000	30



Sanyo to Panasonic Merger  
October 2011



ECOi EX™ Series

# Solenoid Valve Kit

### Multiple Connection Port Type

Our Solenoid Valve Kit makes field installation easier. Multiple port solenoid valve kits reduces the amount of tubing and branch distribution kits required for installation. Main refrigerant tubing inlet and outlet included to aid in system design, piping layout and cost of installation.

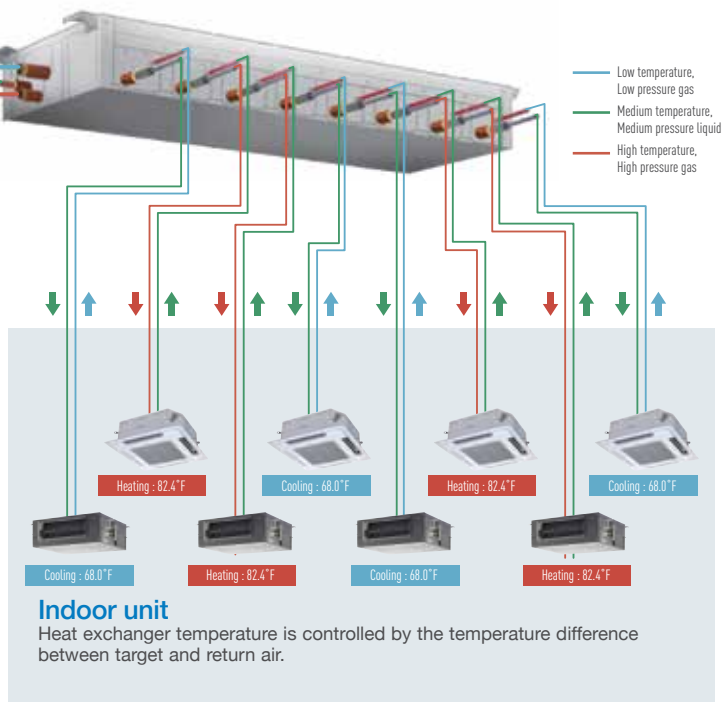
### System Structure

To control output modulation, the system sets the appropriate frequency of the compressor to insure it meets the output required to satisfy each zone.



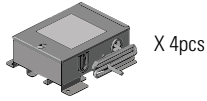
**Outdoor unit**  
**3-WAY MF2**

### Solenoid Valve Kit

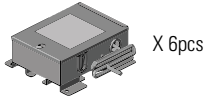


## Valve Kit Line-up (Multiple Connection Type)

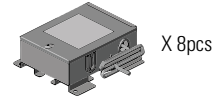
CZ-P456HR2U  
CZ-P4160HR2U



CZ-P656HR2U



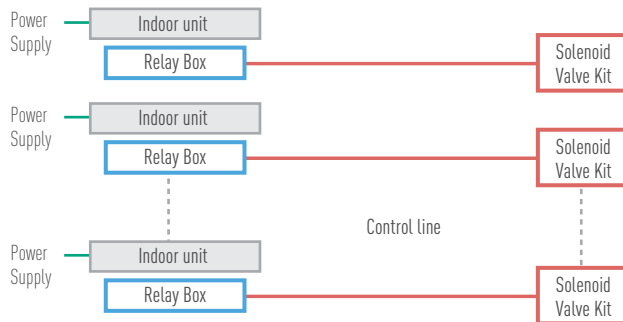
CZ-P856HR2U



	1 port	4 port	6 port	8 port
56 type	CZ-P56HR2U	CZ-P456HR2U	CZ-P656HR2U	CZ-P856HR2U
160 type	CZ-P160HR2U	CZ-P4160HR2U	--	--

## Solenoid Valve Kit / Wiring Work

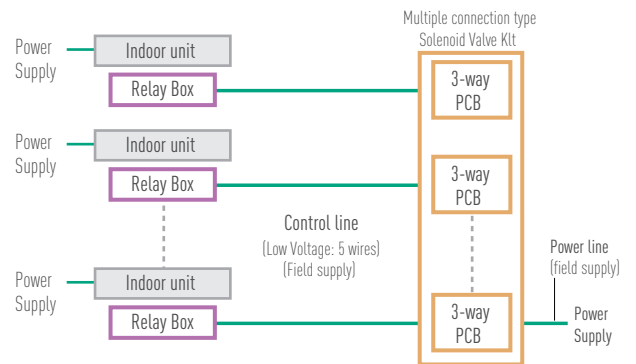
### Single Connection Type



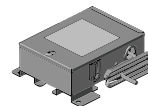
Parts included  
in HR2U Kit



### Multiple Connection Type



Signal Relay Box  
(accessory included)



Parts included  
in HR2U Kit



# ACCESSORIES ECOi™ SYSTEM

PART NUMBER	DESCRIPTION	Duct Collar
CZ-56DAF2	DUCT FLANGE	For Use with 7,9,12,15,18 MF
CZ-90DAF2	DUCT FLANGE	For Use with 24 MF
CZ-160DAF2	DUCT FLANGE	For Use with 36,48,54 MF
<b>2-Way Distribution Kits</b>		
CZ-P160BK1U	DISTRIBUTION JOINT KIT	Used with 2 Pipe Indoor Unit Piping - Up to 76,400 BTUs
CZ-P680BK1U	DISTRIBUTION JOINT KIT	Used with 2 Pipe Indoor Unit Piping - 76,500 to 232,000 BTUs
CZ-P1350BK1U	DISTRIBUTION JOINT KIT	Used with 2 Pipe Indoor Unit Piping - 232,200 to 460,700 BTUs
CZ-P680PJ1U	DISTRIBUTION JOINT KIT	Used to Connect Multiple 2 Pipe Outdoor Units - Up to 232,000 BTUs
CZ-P1350PJ1U	DISTRIBUTION JOINT KIT	Used to Connect Multiple 2 Pipe Outdoor Units - 232,200 to 460,700 BTUs
<b>3-Way Distribution Kits</b>		
CZ-P224BH1U	DISTRIBUTION JOINT KIT	Used with 3 Pipe Indoor Unit Piping - Up to 76,400 BTUs
CZ-P680BH1U	DISTRIBUTION JOINT KIT	Used with 3 Pipe Indoor Unit Piping - 76,500 to 232,000 BTUs
CZ-P1350BH1U	DISTRIBUTION JOINT KIT	Used with 3 Pipe Indoor Unit Piping - 232,200 to 460,700 BTUs
CZ-P900PH1U	DISTRIBUTION JOINT KIT	Used to Connect Multiple 3 Pipe Outdoor Units - Up to 307,100 BTUs
<b>3-Way Solenoid Valve Kits</b>		
CZ-P56HR2U	SOLENOID VALVE KIT	Total Indoor Capacity of Less than 19,000 BTUs (for 3 Pipe System)
CZ-P456HR2U	SOLENOID VALVE KIT	4 port; Total Allowable Indoor Capacity <85,300 BTUs for 3 Pipe System
CZ-P656HR2U	SOLENOID VALVE KIT	6 port; Total Allowable Indoor Capacity <124,200 BTUs for 3 Pipe System
CZ-P856HR2U	SOLENOID VALVE KIT	8 port; Total Allowable Indoor Capacity <162,400 BTUs for 3 Pipe System
CZ-P160HR2U	SOLENOID VALVE KIT	Total Indoor Capacity of 19,100 to 54,600 BTUs (for 3 Pipe System)
CZ-P4160HR2U	SOLENOID VALVE KIT	4 port ;Total Allowable Indoor Capacity <238,800 BTUs for 3 Pipe System
<b>Ball Valves</b>		
BVT 14	1/4" Ball Valve	With Access Port Fitting
BVT 38	3/8" Ball Valve	With Access Port Fitting
BVT 12	1/2" Ball Valve	With Access Port Fitting
BVT 58	5/8" Ball Valve	With Access Port Fitting
BVT 34	3/4" Ball Valve	With Access Port Fitting
BVT 78	7/8" Ball Valve	With Access Port Fitting
BVT 118	1-1/8" Ball Valve	With Access Port Fitting
BVT 138	1-3/8" Ball Valve	With Access Port Fitting
BVT 158	1-5/8" Ball Valve	With Access Port Fitting
<b>Univolt Mini Condensate Pumps</b>		
ASP-MAUNI	100 - 250 VOLT MINI AQUA ASPEN CONDENSATE PUMP	
ASP-MOUNI	100 - 250 VOLT MINI ORANGE ASPEN CONDENSATE PUMP	
ASP-MLUNI	100 - 250 VOLT MINI LIME ASPEN CONDENSATE PUMP	
ASP-MVUNI	100 - 250 VOLT MINI WHITE ASPEN CONDENSATE PUMP	
<b>Electric Heater</b>		
MVA**HT	MVA**HT ELECTRIC HEATER FOR MVA SERIES (REFER TO PAGE 27 FOR DETAILS)	
<b>3 Way, 2 Way, Mini Ecoi &amp; Paci Wind Baffles / Hail Guards and Snow Hoods</b>		
WINDB-MEMF2T	EX Models - Snow Hood	
WINDB-LB2S	Large Back and 2 Sides - Wind Baffle / Hail Guards EX Models	
WINDB-LB	Large Back Only-Wind Baffle/Hail Guards EX Model 6 & 8 ton ME	
WINDB-SB	Small Back Only-Wind Baffle/Hail Guards EX Model 6 & 8 ton ME only	
WINDB-SB2S	Small Back and 2 sides -Wind Baffle/Hail Guards EX Models	
WINDB-SPO	Side Panel Only -Wind Baffle/Hail Guards EX Models	
WINDB-ME1	VRF Top Old Units 1U9 Model Only	
WINDB-P2	Coil Side for Models U-42PE1U6 (Paci), U-36LE1U6 & U-52LE1U6 (Mini Ecoi)	
WINDB-P1	Coil Side for U-26PE1U6 & U-36PE1U6 (Paci)	
WINDB-1A	Fan Side for U-26PE1U6, U-36PE1U6 & U-42PE1U6 (2 Required U-42) (Paci)	
	Fan Side for U-36LE1U6 & U-52LE1U6 (2 Required) (Mini Ecoi)	

Note: SPECIAL ORDER - 4 Week Lead Time

# VRF ACCESSORIES CROSS REFERENCE

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	DESCRIPTION
<b>Duct Collar</b>			
		CZ-56DAF2	Duct Flange (For use with 7, 9, 12, 15, 18 MF)
		CZ-90DAF2	Duct Flange (For use with 24 MF)
		CZ-160DAF2	Duct Flange (For use with 36, 48, 54 MF)
<b>2-Way Distribution Kits</b>			
APR-P160UK	APR-P160UK	CZ-P160BK1U	Used with 2 Pipe Indoor Unit Piping - Up to 76,400 BTUs
APR-P680UK	APR-P680UK	CZ-P680BK1U	Used with 2 Pipe Indoor Unit Piping - 76,500 - 232,000 BTUs
APR-P1350UK	APR-P1350UK	CZ-P1350BK1U	Used to Connect 2 Pipe Indoor Unit Piping - 232,000 - 460,700 BTUs
APR-CHP680UK	APR-CHP680UK	CZ-P680PJ1U	Used to Connect Multiple 2 Pipe Outdoor Units - Up to 232,000 BTUs
APR-CHP1350UK	APR-CHP1350UK	CZ-P1350PJ1U	Used to Connect Multiple 2 Pipe Outdoor Units - 232,200 - 460,700 BTUs
<b>3-Way Distribution Kits</b>			
APR-RZP224UK	APR-RZP224UK	CZ-P224BH1U	Used with 3 Pipe Indoor Unit Piping - Up to 76,400 BTUs
APR-RZP680UK	APR-RZP680UK	CZ-P680BH1U	Used with 3 Pipe Indoor Unit Piping - Up to 76,500 - 232,000 BTUs
APR-RZP1350UK	APR-RZP1350UK	CZ-P1350BH1U	Used to Connect 3 Pipe Indoor Unit Piping - 232,200 - 460,700 BTUs
APR-CHRP900UK	APR-CHRP900UK	CZ-P900BH1U	Used to Connect Multiple 3 Pipe Outdoor Units - Up to 307,100 BTUs
<b>3-Way Solenoid Valve Kits</b>			
APR-RZP224UK	CZ-P56HR1U	CZ-P56HR2U	Total Indoor Capacity of Less than 19,000 BTUs (for 3 Pipe System)
ATK-RZP160BAWB	CZ-P160HR1U	CZ-P160HR2U	Total Indoor Capacity of 19,100 - 54,600 BTUs (for 3 Pipe System)
		CZ-P456HR2U	4 port; Total Allowable Indoor Capacity < 85,300 BTUs (for 3 Pipe System)
		CZ-P656HR2U	6 port; Total Allowable Indoor Capacity < 124,200 BTUs (for 3 Pipe System)
		CZ-P856HR2U	8 port; Total Allowable Indoor Capacity < 162,400 BTUs (for 3 Pipe System)
		CZ-P4160HR2U	4 port; Total Allowable Indoor Capacity < 238,800 BTUs (for 3 Pipe System)
<b>Ball Valves</b>			
BVT 14	BVT 14	BVT 14	1/4" Ball Valve With Access Port Fitting
BVT 38	BVT 38	BVT 38	3/8" Ball Valve With Access Port Fitting
BVT 12	BVT 12	BVT 12	1/2" Ball Valve With Access Port Fitting
BVT 58	BVT 58	BVT 58	5/8" Ball Valve With Access Port Fitting
BVT 34	BVT 34	BVT 34	3/4" Ball Valve With Access Port Fitting
BVT 78	BVT 78	BVT 78	7/8" Ball Valve With Access Port Fitting
BVT 118	BVT 118	BVT 118	1-1/8" Ball Valve With Access Port Fitting
BVT 158	BVT 158	BVT 158	1-5/8" Ball Valve With Access Port Fitting
<b>Univolt Mini Condensate Pumps</b>			
ASP-MA115 (AQUA)	ASP-MA115 (AQUA)	ASP-MAUNI (AQUA) 115/230	Aspen Mini Aqua Condensate Max 33" Lift, 3.2 GPH @ 0 Lift, 0.8 GPH @ 33'
ASP-MA230 (AQUA)	ASP-MA230 (AQUA)		
ASP-ML115 (LIME)	ASP-ML115 (LIME)	ASP-MLUNI- (LIME) 115/230	Aspen Mini Lime Condensate Max 33" Lift, 3.2 GPH @ 0 Lift, 0.8 GPH @ 33'
ASP-ML230 (LIME)	ASP-ML230 (LIME)		
ASP-MO115 (ORANGE)	ASP-MO115 (ORANGE)	ASP-MOUNI (ORANGE) 115/230	Aspen Mini Orange Condensate Max 33" Lift, 3.7 GPH @ 0 Lift, 0.8 GPH @ 33'
ASP-MO230 (ORANGE)	ASP-MO230 (ORANGE)		
		ASP-MWUNI 115/230	Aspen Mini White Condensate Max 33" Lift, 2.8 GPH @ 0 Lift, 0.8 GPH @ 33'

# Single Split Systems 26K-42K



# PACi PRODUCT LINE-UP

Type	Nominal Cooling Capacity (Btu/h class)		
	26,000	36,000	42,000
<b>WALL MOUNTED</b>	 S-26PK2U6		
<b>CEILING MOUNTED</b>	 S-26PT2U6	 S-36PT2U6	 S-42PT2U6
<b>CEILING RECESSED</b>	 S-26PU2U6	 S-36PU2U6	 S-42PU2U6
<b>CONCEALED DUCTED</b>	 S-26PF2U6	 S-36PF2U6	
<b>OUTDOOR UNITS</b>	 U-26PE1U6	 U-36PE1U6	 U-42PE1U6

## OPERATION RANGE

PROFESSIONAL SERIES (U-26/36/42 PE1U6)			SINGLE ZONE
	TEMPERATURE	INDOOR AIR INTAKE TEMP.	OUTDOOR AIR INTAKE TEMP.
COOLING	MAXIMUM	90°F DB / 77°F WB	115°F DB / -° WB
	MINIMUM	64°F DB / 57°F WB	0°F DB / -° WB
HEATING	MAXIMUM	86°F DB / -° WB	75°F DB / 64°F WB
	MINIMUM	61°F DB / -° WB	-4°F DB / -4°F WB



# PEK WALL MOUNTED HEAT PUMPS



**Indoor Unit**  
S-26PK2U6

**Wireless Remote Controller**  
CZ-RWSK1U

**ECONAVI**  
(Optional Accessory)

**Outdoor Unit**  
U-26PE1U6

Panasonic wall-mounted units work well with any interior design. Flexible and compact, offering individualized zoned comfort for complete temperature control throughout the day. Over five different air flow directions and wireless remotes provide control in the palm of your hand.

## 26PEK2U6 / S-26PK2U6 (INDOOR) / U-26PE1U6 (OUTDOOR)

### KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Easy Wall Mount for Any Application
- \* Washable Long Life Filter
- \* Washable Front Panel
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Built-In Low Ambient Temperature Controls from 0°F
- \* ECONAVI Connection Possible
- \* Microprocessor Controls
- \* Wireless Remote Control Included
- \* Wired Remote Control Optional
- \* Automatic or 3 Fan Speeds Control
- \* 24-hour Programmable Timer
- \* Vertical Air Deflection

**CZ-RTC4 Wired Remote Controller** (Optional)

**CZ-RTC5B High-spec Wired Remote Controller** (Optional)

**CZ-RE2C2 Simple Wired Remote Controller** (Optional)

**SER8150R5B1194 Wired Remote Controller w/ PIR** (Optional)

**SER8150R0B1194 Wired Remote Controller** (Optional)

**COOLING ONLY: SYSTEM MAY BE FIELD CONFIGURED FOR COOLING ONLY.**

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
26PEK2U6	24,000 BTU	208-230V/60 HZ	1

DESCRIPTION	26PEK2U6	
	S-26PK2U6 INDOOR UNIT	U-26PE1U6 OUTDOOR UNIT
<b>PERFORMANCE</b>		
COOLING CAPACITY	24,000 (9,500-24,000) BTU/H	
HEATING CAPACITY	27,600 (8,000-27,600) BTU/H	
MOISTURE REMOVAL (HIGH)	5.7 PINTS/HR	
FAN AIRFLOW RATE CFM-(H/M/L)	650/512/406	
SEER (COOLING)	16.7	
EER (COOLING)	8.5	
HSPF (HEATING)	10.1	
<b>POWER SUPPLY</b>	230V / 208V, 1PH, 60HZ	
<b>CURRENT</b>		
COOLING	15.0/16.6 A	
HEATING	13.2/14.6 A	
<b>POWER INPUT</b>		
COOLING	2,820/2,820 W	
HEATING	2,490/2,490 W	
<b>BACK-UP HEATER</b>	---	
<b>FUSE OR CIRCUIT BREAKER CAPACITY</b>	15 A	30 A
<b>SOUND LEVELS</b>		
INDOOR (HIGH/MED/LOW) DB(A)	48/42/38	
OUTDOOR (HIGH) DB(A)	49	
<b>REFRIGERANT PIPE DIMENSIONS</b>		
DISCHARGE (FLARE)	3/8"	
SUCTION (FLARE)	5/8"	
<b>REFRIGERANT PIPE LENGTH</b>	MAX 165 FT	
<b>ELEVATION DIFFERENCE*</b>		
OUTDOOR ABOVE	MAX 100 FT	
OUTDOOR BELOW	MAX 50 FT	
<b>UNIT DIMENSIONS</b>		
INCHES (") / LBS.	11.8" / 41.9" / 9" / 32 LBS.	30.7" / 37" / 13.4" / 128 LBS.
	HEIGHT/ WIDTH/ DEPTH/ NET WEIGHT	

Important: You must use refrigerant piping rated for R410a.

\*This is maximum elevation difference when the indoor unit is located above the outdoor unit.

# PET CEILING MOUNTED HEAT PUMPS

## Indoor Unit

S-26PT2U6  
S-36PT2U6  
S-42PT2U6



**Outdoor Unit**  
U-26PE1U6  
U-36PE1U6



**Outdoor Unit**  
U-42PE1U6

Panasonic's 4-Way cassette units are flexible, efficient and space-saving. Now available to fit within standard 24"x24" ceiling grids.

26PET2U6 / 36PET2U6 / 42PET2U6 / S-26PT2U6 / S-36PT2U6 / S-42PT2U6 / U-26PE1U6 / U-36PE1U6 / U-42PE1U6

## KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Easy Ceiling Mount for Any Application
- \* Washable Front Panel
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Built-In Low Ambient Temperature Controls from 0°F
- \* ECONAVI Connection Possible
- \* Microprocessor Controls
- \* Wired or Wireless Remote Control (Optional)
- \* Automatic or 3 Fan Speeds Control
- \* 7 Day / 6 Event Programmable Timer

**CZ-RWST2U Wireless Controller with Receiver** (Optional)

**CZ-RTC5B High-spec Wired Remote Controller** (Optional)

**CZ-CENSC1 Econavi Sensor** (Optional)

**CZ-RE2C2 Simple Wired Remote Controller** (Optional)

**CZ-RTC4 Standard Wired Remote Controller** (Optional)

**SER8150R5B1194 Wired Remote Controller w/ PIR** (Optional)

**SER8150ROB1194 Wired Remote Controller** (Optional)

COOLING ONLY: SYSTEM MAY BE FIELD CONFIGURED FOR COOLING ONLY.

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
26PET2U6	24,000 BTU	208-230V/60 HZ	1
36PET2U6	32,600 BTU	208-230V/60 HZ	1
42PET2U6	44,500 BTU	208-230V/60 HZ	1

DESCRIPTION	26PET2U6		36PET2U6		42PET2U6	
	S-26PT2U6 INDOOR UNIT	U-26PE1U6 OUTDOOR UNIT	S-36PT2U6 INDOOR UNIT	U-36PE1U6 OUTDOOR UNIT	S-42PT2U6 INDOOR UNIT	U-42PE1U6 OUTDOOR UNIT
<b>PERFORMANCE</b>						
COOLING CAPACITY	24,000 (9,500-24,000) BTU/H		32,600 (9,500-32,600) BTU/H		39,000 (14,00-39,000) BTU/H	
HEATING CAPACITY	27,000 (8,000-27,000) BTU/H		36,200 (8,000-36,200) BTU/H		44,500 (13,500-44,500) BTU/H	
MOISTURE REMOVAL (HIGH)	5.3 PINTS/HR		6.5 PINTS/HR		8.4 PINTS/HR	
FAN AIRFLOW RATE CFM-(H/M/L)	742/636/547		1,059/883/812		1,201/989/848	
SEER (COOLING)	16.8		18.0		16.7	
EER (COOLING)	8.9		9.2		9.4	
HSPF (HEATING)	9.4		9.5		10.2	
<b>POWER SUPPLY</b>	230V / 208V, 1PH, 60HZ		230V / 208V, 1PH, 60HZ		230V / 208V, 1PH, 60HZ	
<b>CURRENT</b>						
COOLING	14.4/15.9 A		16.6/18.3 A		21.2/23.4 A	
HEATING	12.9/14.3 A		13.9/15.4 A		19.6/21.7 A	
<b>POWER INPUT</b>						
COOLING	2,700/2,700 W		3,550/3,550 W		4,160/4,160 W	
HEATING	2,430/2,430 W		3,000/3,000 W		3,860/3,860 W	
<b>FUSE OR CIRCUIT BREAKER CAPACITY</b>	15 A	30 A	15 A	35 A	15 A	40 A
<b>SOUND LEVELS</b>						
INDOOR (HIGH/MED/LOW) DB(A)	39/35/31		42/37/35		46/40/36	
OUTDOOR (HIGH) DB(A)	49		52		53	
<b>REFRIGERANT PIPE DIMENSIONS</b>						
DISCHARGE (FLARE)	3/8"		3/8"		3/8"	
SUCTION (FLARE)	5/8"		5/8"		5/8"	
<b>REFRIGERANT PIPE LENGTH</b>	MAX 165 FT		MAX 165 FT		MAX 165 FT	
<b>ELEVATION DIFFERENCE*</b>						
OUTDOOR ABOVE	MAX 100 FT		MAX 100 FT		MAX 100 FT	
OUTDOOR BELOW	MAX 50 FT		MAX 50 FT		MAX 50 FT	
<b>UNIT DIMENSIONS</b>						
INCHES (") / LBS.	9.25" / 50.2" / 27.2" / 73 LBS.	30.7" / 37" / 13.4" / 128 LBS.	9.25" / 62.6" / 27.2" / 88 LBS.	30.7" / 37" / 13.4" / 143 LBS.	9.25" / 62.6" / 27.2" / 88 LBS.	48.4" / 37" / 13.4" / 220 LBS.
	HEIGHT / WIDTH / DEPTH / NET WEIGHT		HEIGHT / WIDTH / DEPTH / NET WEIGHT		HEIGHT / WIDTH / DEPTH / NET WEIGHT	

\*This is maximum elevation difference when the indoor unit is located above the outdoor unit.

# PEU 4-WAY CEILING CASSETTE HEAT PUMPS

## Indoor Unit

S-26PU2U6\*  
S-36PU2U6\*  
S-42PU2U6\*

\*Grille not included.  
Sold separately.

**ECONAVI**  
(Optional Accessory)



**Outdoor Unit**  
U-26PE1U6  
U-36PE1U6



**Outdoor Unit**  
U-42PE1U6

Panasonic wall-mounted units work well with any interior design. Flexible and compact, offering individualized zoned comfort for complete temperature control throughout the day. Over five different air flow directions and wireless remotes provide control in the palm of your hand.

26PEU2U6 / 36PEU2U6 / 42PEU2U6 / U-26PE1U6 / U-36PE1U6 / U-42PE1U6

## KEY FEATURES:

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Washable Long Life Filter
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Automatic Vertical Air Deflection
- \* Built-In Low Ambient Control
- \* ECONAVI Connection Possible
- \* Microprocessor Controls
- \* Wired or Wireless Remote Control (Optional)
- \* Automatic or 3 Fan Speeds Control
- \* 7 Day / 6 Event Programmable Timer

**CZ-RWSU3U Wireless Controller Transmitter/Receiver Kit** (Optional)

**CZ-CENSC1 Econavi Sensor** (Optional)

**CZ-RTC4 Standard Wired Remote Controller** (Optional)

**CZ-RTC5B High-spec Wired Remote Controller** (Optional)

**CZ-RE2C2 Simple Wired Remote Controller** (Optional)

**SER8150R5B1194 Wired Remote Controller w/ PIR** (Optional)

**SER8150R0B1194 Wired Remote Controller** (Optional)

COOLING ONLY: SYSTEM MAY BE FIELD CONFIGURED FOR COOLING ONLY.

MODELS	(Type: Nominal Cooling Capacity, etc)	Volt	PH
26PEU2U6	24,800 BTU	208-230V/60 HZ	1
36PEU2U6	32,600 BTU	208-230V/60 HZ	1
42PEU2U6	39,000 BTU	208-230V/60 HZ	1

DESCRIPTION	26PEU2U6		36PEU2U6		42PEU2U6	
	S-26PU2U6 INDOOR UNIT	U-26PE1U6 OUTDOOR UNIT	S-36PU2U6 INDOOR UNIT	U-36PE1U6 OUTDOOR UNIT	S-42PU2U6 INDOOR UNIT	U-42PE1U6 OUTDOOR UNIT
<b>GRILLE ASSEMBLY</b>	CZ-36KPU3U					
<b>PERFORMANCE</b>	24,800 (9,500-24,800) BTU/H		32,600 (9,500-32,600) BTU/H		39,000 (14,00-39,000) BTU/H	
COOLING CAPACITY	24,800 (9,500-24,800) BTU/H		32,600 (9,500-32,600) BTU/H		39,000 (14,00-39,000) BTU/H	
HEATING CAPACITY	28,600 (8,000-28,600) BTU/H		37,000 (8,000-37,000) BTU/H		48,000 (13,500-48,000) BTU/H	
MOISTURE REMOVAL (HIGH)	4.6 PINTS/HR		4.4 PINTS/HR		7.1 PINTS/HR	
FAN AIRFLOW RATE CFM-(H/M/L)	777/600/494		1,165/953/742		1,236/989/777	
SEER (COOLING)	17.2		16.0		15.6	
EER (COOLING)	9.1		8.3		8.7	
HSPF (HEATING)	10.3		9.0		8.9	
<b>POWER SUPPLY</b>	230V / 208V, 1PH, 60HZ		230V / 208V, 1PH, 60HZ		230V / 208V, 1PH, 60HZ	
<b>CURRENT</b>	14.6/16.1 A		18.4/20. A		23.1/25.5 A	
COOLING	14.6/16.1 A		18.4/20. A		23.1/25.5 A	
HEATING	13.8/15.2 A		15.8/17.5 A		22.1/24.5 A	
<b>POWER INPUT</b>	2,730/2,730 W		3,940/3,940 W		4,500/4,500 W	
COOLING	2,730/2,730 W		3,940/3,940 W		4,500/4,500 W	
HEATING	2,580/2,580 W		3,400/3,400 W		4,320/4,320 W	
<b>FUSE OR CIRCUIT BREAKER CAPACITY</b>	15 A	30 A	15 A	35 A	15 A	40 A
<b>SOUND LEVELS</b>	37/31/28		44/38/32		45/39/33	
INDOOR (HIGH/MED/LOW) DB(A)	37/31/28		44/38/32		45/39/33	
OUTDOOR (HIGH) DB(A)	49		52		53	
<b>REFRIGERANT PIPE DIMENSIONS</b>	3/8"		3/8"		3/8"	
DISCHARGE (FLARE)	3/8"		3/8"		3/8"	
SUCTION (FLARE)	5/8"		5/8"		5/8"	
<b>REFRIGERANT PIPE LENGTH</b>	MAX 165 FT		MAX 165 FT		MAX 165 FT	
<b>ELEVATION DIFFERENCE*</b>	MAX 100 FT		MAX 100 FT		MAX 100 FT	
OUTDOOR ABOVE	MAX 100 FT		MAX 100 FT		MAX 100 FT	
OUTDOOR BELOW	MAX 50 FT		MAX 50 FT		MAX 50 FT	
<b>UNIT DIMENSIONS</b>	10.08" / 33.08"	30.7" / 37"	12.56" / 33.08"	30.7" / 37"	12.56" / 33.08"	48.4" / 37"
INCHES (") / LBS.	33.08" / 53 LBS.	13.4" / 128 LBS.	33.08" / 60 LBS.	13.4" / 143 LBS.	33.08" / 60 LBS.	13.4" / 220 LBS.
	HEIGHT / WIDTH / DEPTH / NET WEIGHT		HEIGHT / WIDTH / DEPTH / NET WEIGHT		HEIGHT / WIDTH / DEPTH / NET WEIGHT	

\*This is maximum elevation difference when the indoor unit is located above the outdoor unit.

# PEF CEILING CONCEALED HEAT PUMPS

**Indoor Unit**  
S-26PF2U6  
**ECONAVI**  
(Optional Accessory)



**Outdoor Unit**  
U-26PE1U6



**Indoor Unit**  
S-36PF2U6  
**ECONAVI**  
(Optional Accessory)



**Outdoor Unit**  
U-36PE1U6



Panasonic's 4-Way cassette units are flexible, efficient and space-saving. Now available to fit within standard 24" x 24" ceiling grids.

26PEF2U6 / 36PEF2U6 / S-26PF2U6 / U-26PE1U6 / S-36PF2U6 / U-36PE1U6

**KEY FEATURES:**

- \* Eco-friendly R410A Refrigerant
- \* 208/230V, 1 Phase, 60Hz
- \* Easy Ceiling Mount for Any Application
- \* Washable Front Panel
- \* Electronic Expansion Valve (EEV) for Accurate Refrigerant Control
- \* Built-In Low Ambient Temperature Controls from 0°F
- \* ECONAVI Connection Possible
- \* Microprocessor Controls
- \* Wired or Wireless Remote Control (Optional)
- \* Automatic or 3 Fan Speeds Control
- \* 7 Day / 6 Event Programmable Timer

<b>CZ-RWSK1U Controller</b>	<b>CZ-RTC5B High-spec Wired Remote Controller</b> (Optional)
<b>CZ-RWSC3 Receiver</b> (Order Separately)	<b>CZ-RE2C2 Simple Wired Remote Controller</b> (Optional)
<b>CZ-CENS1 Econavi Sensor</b> (Optional)	<b>SER8150R5B1194 Wired Remote Controller w/ PIR</b> (Optional)
<b>CZ-RTC4 Standard Wired Remote Controller</b> (Optional)	<b>SER8150ROB1194 Wired Remote Controller</b> (Optional)

COOLING ONLY: SYSTEM MAY BE FIELD CONFIGURED FOR COOLING ONLY.

MODELS	(Type: Nominal Cooling Capacity, etc)		Volt	PH
26PEF2U6	24,000 BTU		208-230V/60 HZ	1
36PEF2U6	31,200 BTU		208-230V/60 HZ	1

DESCRIPTION	26PEF2U6		36PEF2U6	
	S-26PF2U6	U-26PE1U6	S-36PF2U6	U-36PE1U6
	INDOOR UNIT	OUTDOOR UNIT	INDOOR UNIT	OUTDOOR UNIT
<b>PERFORMANCE</b>				
COOLING CAPACITY	24,000 (9,500–24,000) BTU/H		31,200 (9,500–31,200) BTU/H	
HEATING CAPACITY	28,600 (8,000–28,600) BTU/H		36,200 (8,000–36,200) BTU/H	
MOISTURE REMOVAL (HIGH)	4.6 PINTS/HR		2.9 PINTS/HR	
FAN AIRFLOW RATE CFM-(H/M/L)	742 / 671 / 530		1,201 / 989 / 812	
SEER (COOLING)	16.2		15.5	
EER (COOLING)	8.8		8.6	
HSPF (HEATING)	9.8		9.0	
<b>POWER SUPPLY</b>	208 / 230V, 1PH, 60HZ		208 / 230V, 1PH, 60HZ	
<b>CURRENT</b>				
COOLING	16.6/15.1 A		19.3/17.6 A	
HEATING	15.8/14.3 A		17.5/15.9 A	
<b>POWER INPUT</b>				
COOLING	2,720 / 2,720 W		3,600 / 3,600 W	
HEATING	2,580 / 2,580 W		3,250 / 3,250 W	
<b>EXTERNAL STATIC PRESSURE</b>	0.28" (0.04" - 0.60") WC		0.40" (0.04" - 0.60") WC	
<b>MAXIMUM OVERCURRENT PROTECTION</b>	15 A	30 A	15 A	35 A
<b>SOUND LEVELS</b>				
INDOOR (HIGH/MED/LOW) DB(A)	35/32/26		39/35/31	
OUTDOOR (HIGH) DB(A)	49		52	
<b>REFRIGERANT PIPE DIMENSIONS</b>				
DISCHARGE (FLARE)	3/8"		3/8"	
SUCTION (FLARE)	5/8"		5/8"	
<b>REFRIGERANT PIPE LENGTH</b>	MAX 165 FT		MAX 165 FT	
<b>ELEVATION DIFFERENCE*</b>				
OUTDOOR ABOVE	MAX 100 FT		MAX 100 FT	
OUTDOOR BELOW	MAX 50 FT		MAX 50 FT	
<b>UNIT DIMENSIONS</b>				
INCHES (") / LBS.	11.4" / 39.4" / 27.6" / 73 LBS.	30.7" / 37" / 13.4" / 128 LBS.	12.2" / 58.3" / 24.8" / 104 LBS.	30.7" / 37" / 13.4" / 143 LBS.
	HEIGHT/WIDTH/DEPTH/NET WEIGHT			

\*This is maximum elevation difference when the indoor unit is located above the outdoor unit.656

# PACi SINGLE SPLIT CROSS REFERENCE

SANYO	PANASONIC (1ST GEN.)	PANASONIC (2ND GEN.)	DESCRIPTION
<b>Indoor Units</b>			
KHS2672R	S-26PK1U6	S-26PK2U6	26,000 BTU/h Wall Mounted Indoor Unit
THW2672R	S-26PT1U6	S-26PT2U6	26,000 BTU/h Ceiling Suspended Indoor Unit
THW3672R	S-36PT1U6	S-36PT2U6	36,000 BTU/h Ceiling Suspended Indoor Unit
THW4272R	S-42PT1U6	S-42PT2U6	42,000 BTU/h Ceiling Mounted Indoor Unit
XHW2672R	S-26PU1U6	S-26PU2U6	26,000 BTU/h Ceiling Recessed Indoor Unit (4 Way)
XHW3672R	S-36PU1U6	S-36PU2U6	36,000 BTU/h Ceiling Recessed Indoor Unit (4 Way)
XHW4272R	S-42PU1U6	S-42PU2U6	42,000 BTU/h Ceiling Recessed Indoor Unit (4 Way)
UHW2672R	S-26PF1U6	S-26PF2U6	26,000 BTU/h Concealed Ducted Indoor Unit
UHW3672R	S-36PF1U6	S-36PF2U6	36,000 BTU/h Concealed Ducted Indoor Unit
<b>Outdoor Units</b>			
CH2672R	U-26PE1U6	U-26PE1U6	26,000 BTU/h Outdoor Heat Pump Condensing Unit
CH3672R	U-36PE1U6	U-36PE1U6	36,000 BTU/h Outdoor Heat Pump Condensing Unit
CH4272R	U-42PE1U6	U-42PE1U6	42,000 BTU/h Outdoor Heat Pump Condensing Unit



Sanyo to Panasonic Merger  
October 2011

## ECOi VRF Standard and Extended Warranties:

---

# Extend your warranty through free webinar and classroom VRF training

Whether you're working on your first Panasonic installation or are an experienced Panasonic installer, we'll team with you to provide valuable support, delivered fast. **Connect with Us** through our On-demand webinars and classroom training!

### Classroom Training Courses Available:

- ECOi VRF Sales and Applications
- ECOi VRF Installation and Commissioning
- ECOi VRF Service Training and Diagnostics

Learn more about the advantages of Panasonic's unique service and support for VRF installers at

<https://na.panasonic.com/us/support/case-studies-and-videos>





## Requirements to Extend Your

# ECOi VRF Warranty

### Standard Warranty: 1 Year Parts and 6 Years Compressor

#### Requirement for Standard Warranty

1. Factory Training – Installation computer based and class
2. Factory Training – Commissioning computer based and class
3. Line Checker Training – Computer based
4. Comprehensive equipment list model and serial numbers listed
5. As built design software data showing actual line lengths
6. Completed pre-commissioning checklist to include total additional refrigerant charge
7. Line checker data for one hour at start up (Test Run)
8. Data to be submitted within 60 Days of start up to the local representative
9. Verified twice yearly maintenance
10. When installation and service company are not the same – Service company must be factory trained for service and maintenance as well as line checker use
11. Please send the following information to [ACwarranty@us.panasonic.com](mailto:ACwarranty@us.panasonic.com):
  - Equipment List: Model and Serial Numbers
  - As Built Design Software pdf. Showing line set lengths and total charge
  - Pre Commissioned checklist with total additional refrigerant
  - Line Checker Data one hour at start up (Test Run)
  - Twice Yearly Maintenance checklist completed
  - Service Company Details and training achieved

### Extended Warranty Available: 10 Years Parts and 10 Years Compressor

#### Requirement for Extended Warranty (10 Years Parts and Compressor)

1. Includes all requirements of standard warranty
2. Classroom training required at one of Panasonic training centers
3. Line checker data required twice annually (1 in winter [Heating] and 1 in summer [Cooling]) required for one hour
4. Maintenance record twice annually must be verifiable
5. Data to must be submitted within 60 days of commissioning
6. Authorizing certificate will be issued to symbolize the commencement of the extended warranty
7. Please send the following information to [ACwarranty@us.panasonic.com](mailto:ACwarranty@us.panasonic.com):
  - Twice yearly maintenance checklist
  - Line Checker Data – one hour in summer and one hour in winter



# Panasonic Heating & Air Conditioning Division Contact Information

## MAIN OFFICE ADDRESS

1690 Roberts Blvd. NW Ste. 110  
Kennesaw, Ga. 30144  
Main Tel: 678-810-0258

## SALES & SUPPORT EMAIL ADDRESSES

All Equipment Email Inquiries:  
[hvac.equipment@us.panasonic.com](mailto:hvac.equipment@us.panasonic.com)

All Parts Email Inquiries:  
[hvac.parts@us.panasonic.com](mailto:hvac.parts@us.panasonic.com)

All Technical/Service Support Email Inquiries:  
[hvac.service@us.panasonic.com](mailto:hvac.service@us.panasonic.com)

Mini Split Sales Email Inquiries:  
[hvac.sales@us.panasonic.com](mailto:hvac.sales@us.panasonic.com)

Ecoi Sales Email Inquiries:  
[hvac.ecoi@us.panasonic.com](mailto:hvac.ecoi@us.panasonic.com)

Product Registration Email:  
[hvac.productregistration@us.panasonic.com](mailto:hvac.productregistration@us.panasonic.com)

VRF Warranty Data (Model #, Serial # & Pac Checker Data) Email:  
[Acwarranty@us.panasonic.com](mailto:Acwarranty@us.panasonic.com)

## HEATING & AIR CONDITIONING WEB ADDRESSES

Main Heating & Air Conditioning Website:  
[us.panasonic.com/hvac](http://us.panasonic.com/hvac)

Mini Splits Products Landing Page:  
[us.panasonic.com/minisplit](http://us.panasonic.com/minisplit)

VRF Products Landing Page:  
[us.panasonic.com/vrf](http://us.panasonic.com/vrf)

Mini Split & VRF Support Page:  
[us.panasonic.com/hvacinfo](http://us.panasonic.com/hvacinfo)

## Toll Free Support Phone Number: 800-851-1235

- Option 1: All Equipment Orders
- Option 2: All New Parts Orders
- Option 3: All Existing Parts Orders
- Option 4: Ecoi VRF Technical Support Assistance
- Option 5: Mini Split Technical Support Assistance

# SERVICES ECOi™ SYSTEM

**623 321 4375**

LINE Checker Service & diagnostics tool for all ECOi and PACi products






PART NUMBER	DESCRIPTION
<b>ECO-EC-1</b>	1st day of ECOi Equipment Commissioning conducted during a normal business day. Typically 4 systems
<b>ECO-EC-2</b>	Additional days of ECOi Equipment Commissioning conducted during a normal business day. Typically 4 systems
<b>IC-SC-1</b>	Commissioning of Intelligent Controller (Base fee for each Intelligent Controller)
<b>IC-SC-INDOOR</b>	Commissioning of Intelligent Controller (Indoor Units)
<b>LW-SC-1</b>	Commissioning of LonWorks Interface Module (Base fee)
<b>ECO-EC-1</b>	1st day of ECOi Controls Commissioning Conducted During a Normal Business Day
<b>ECO-EC-2</b>	2nd and Additional Days of ECOi Controls Commissioning Conducted During a Normal Business Day
<b>CNBH</b>	Commissioning Completed During Non-business Hours or Non-business Day (Double Normal Values)
<b>COUS</b>	All Commissioning of Systems or Components Outside Continental U.S. (Double Normal Values)
<b>ECOi-IST</b>	Training- ECOi Installation and Commissioning Training (At Customer Locationdoor)
<b>ECOi-SERT</b>	Training- ECOi Servicing Training (At Customer Locationdoor)
<b>TOUS</b>	Training (Conducted outside of the Continental U.S.) (Double Normal Values)
<b>ECO-SIT-4</b>	Training -On-Site Supervised ECOi Installation Training
<b>ECO-SIT-OS</b>	Training-Supervised Installation Training Outside Continental U.S.
<b>CNBH</b>	Commissioning Completed During Non-business Hours or Non-business Ddays
<b>COUS</b>	All Commissioning of Systems or Components Outside Continental U.S.
<b>ECOi-IST</b>	Training - ECOi Installation and Commissioning Training (at customer location)
<b>ECOi-SERT</b>	Training - ECOi Service Training (at customer location)
<b>TOUS</b>	Training (Conducted outside of the Continental U.S.)
<b>ECO-SIT-4</b>	Training (On-Site Supervised ECOi installation training)
<b>ECO-SIT-OS</b>	Training Supervised installation Training Outside Continental U.S. (Double Normal Values)
<b>U-36CC</b>	U-36LE1U6 Condenser Coil Coating      Contact RSM for more details
<b>U-36CA</b>	U-36LE1U6 Condenser Coat All      Contact RSM for more details
<b>U-52CC</b>	U-52LE1U6 Condenser Coil Coating      Contact RSM for more details
<b>U-52CA</b>	U-52LE1U6 Condenser Coat All      Contact RSM for more details
<b>U-72CC</b>	U-72ME& MF2U9 Condenser Coil Coating      Contact RSM for more details
<b>U-72CA</b>	U-72ME& MF2U9 Condenser Coat All      Contact RSM for more details
<b>U-96CC</b>	U-96ME& MF2U9 Condenser Coil Coating      Contact RSM for more details
<b>U-96CA</b>	U-96ME& MF2U9 Condenser Coat All      Contact RSM for more details
<b>U-120CC</b>	U-120ME& MF2U9 Condenser Coil Coating      Contact RSM for more details
<b>U-120CA</b>	U-120ME& MF2U9 Condenser Coat All      Contact RSM for more details
<b>U-144CC</b>	U-144ME& MF2U9 Condenser Coil Coating      Contact RSM for more details
<b>U-144CA</b>	U-144ME& MF2U9 Condenser Coat All      Contact RSM for more details

**WARRANTY**

6 Year Compressor

1 Year Parts

# ECOi OPTIONAL CONNECTORS

PART NUMBER	USE / FUNCTION	CONNECTOR / WIRE CONFIGURATION	WIRE POSITIONS	NOTES
SERVICE CONNECTOR 623-178-5082	Connects to the CZ-RTC4 remote controller for service/diagnostics.	3 position 6" long blue connector with (2) 22 AWG wires attached 	N/A	Connects to "RC connector" main PCB
OPTIONS CONNECTOR 623-306-8794	Connects to indoor PCB at "Options" connector. Outputs a 12 VDC signal when in: Cool mode, Heat mode, Fan mode, Defrost cycle, Heat/Cool thermal On condition.	6 position white harness with (6) 22 AWG wires 6" long 	1-2 = Defrost 1-3 = Thermal On 1-4 = Cooling mode 1-5 = Heating mode 1-6 = Fan On mode 1 = Common Wire	See Drawing
T10 (MULTI FUNCTION) 623-186-9591	Connects to indoor PCB at T10 connector. Can be used to allow: fire shutdown, input signal to start/stop prohibit remote controller operation, output signal indicating start/stop and alarm detection.	6 position orange harness with (6) 22 AWG wires 6" long 	1-2 = Start/Stop. No voltage 2-3 = Prohibit Remote When Shorted 4-6 = Outputs 12VDC when ON 5-6 = Outputs 12VDC When in Alarm	If "jumper" labeled Pulse/Static on the PCB is cut it becomes static vs. momentary
FAN DRIVE 623-162-4435	Connects to indoor unit PCB at FAN connector. Provides a 12VDC output when the unit is in any ON mode. May be used to turn on an external fan or Heat Recovery Ventilator	2 position white harness with (2) 22 AWG wires 6" long 		Changing EEPROM Item Code 31 to 0001 will enable the "ventilator" button on the remote controller to function to start an external fan.
HEATER CONNECTOR CV6233121390	Connects to indoor unit PCB at Heater connector. Indoor types MP, MR & ME output a 208/230 VAC signal. MD, MF2, MK2, MY2, MT2, MM2 & MU2 indoor types output a 12 VDC signal. Both output signals based on a 4° difference in the actual room temperature vs. set temperature.	2 position wire harness with (2) wires (Both VAC & VDC connector supplied) 		Set Item Code 38 to data setting 0002 using wired remote controller. This enables the electric heater to continue operation during alarmed condition. Note: Indoor fan operates when in alarmed condition. Exception: P01 or P12 alarm (Indoor fan failure), F12 alarm (Return Air Thermistor failure)  <b>Not needed for MVA model indoor units.</b>











# Panasonic®



Panasonic Corporation of North America  
 Panasonic Appliances Air-Conditioning North America  
 1690 Roberts Blvd., NW, Suite 110, Kennesaw, GA 30144  
[business.panasonic.com/hvac](http://business.panasonic.com/hvac)

Panasonic Canada Inc.  
 Enterprise Product Sales  
 5770 Ambler Dr., Mississauga, ON, L4W 2T3 CANADA  
[www.panasonic.ca](http://www.panasonic.ca)



Use of the AHRI Certified™ mark indicates a manufacturer's participation in the certification program. For verification of certification for individual products, go to [www.ahridirectory.org](http://www.ahridirectory.org)



<b>Quality Management System Certificate</b>  <small>Certified to ISO 9001: 2008          Cert. No.: MY-AR 1010</small>	 <small>Certified to ISO 9001: 2008          Cert. No.: MY-AR 1010</small>	<b>Certified to ISO 9001: 2008</b> Panasonic HA Air-Conditioning (M) Sch.Bhd. Cert. No.: MY-AR 1010

<b>Environmental Management System Certificate</b>  <small>Certified to ISO 14001: 2004          Cert. No.: MY-ER 0112</small>	 <small>Certified to ISO 14001: 2004          Cert. No.: MY-ER 0112</small>	<b>Certified to ISO 14001: 2004</b> Panasonic HA Air-Conditioning (M) Sch.Bhd. Cert. No.: MY-ER 0112



Serving the US Ductless market since 1983

Because its products are subject to continuous improvements, Panasonic reserves the right to modify product design and specifications without notice and without incurring any obligations.  
 ©Copyright 2017, Panasonic Air Conditioning Products.

**⚠ Caution Related to Safety** Do not add or replace refrigerant other than the specified type. Manufacturer is not responsible for the damage and deterioration in safety due to usage of other refrigerant.

PAC181005CAT

