

REDEFINING THE HEAT PUMP, AGAIN



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# HYPER-HEATING INVERTER FAMILY





MITSUBISHI ELECTRIC CITY MULTI



MITSUBISHI ELECTRIC  
mySLIM  
R410A





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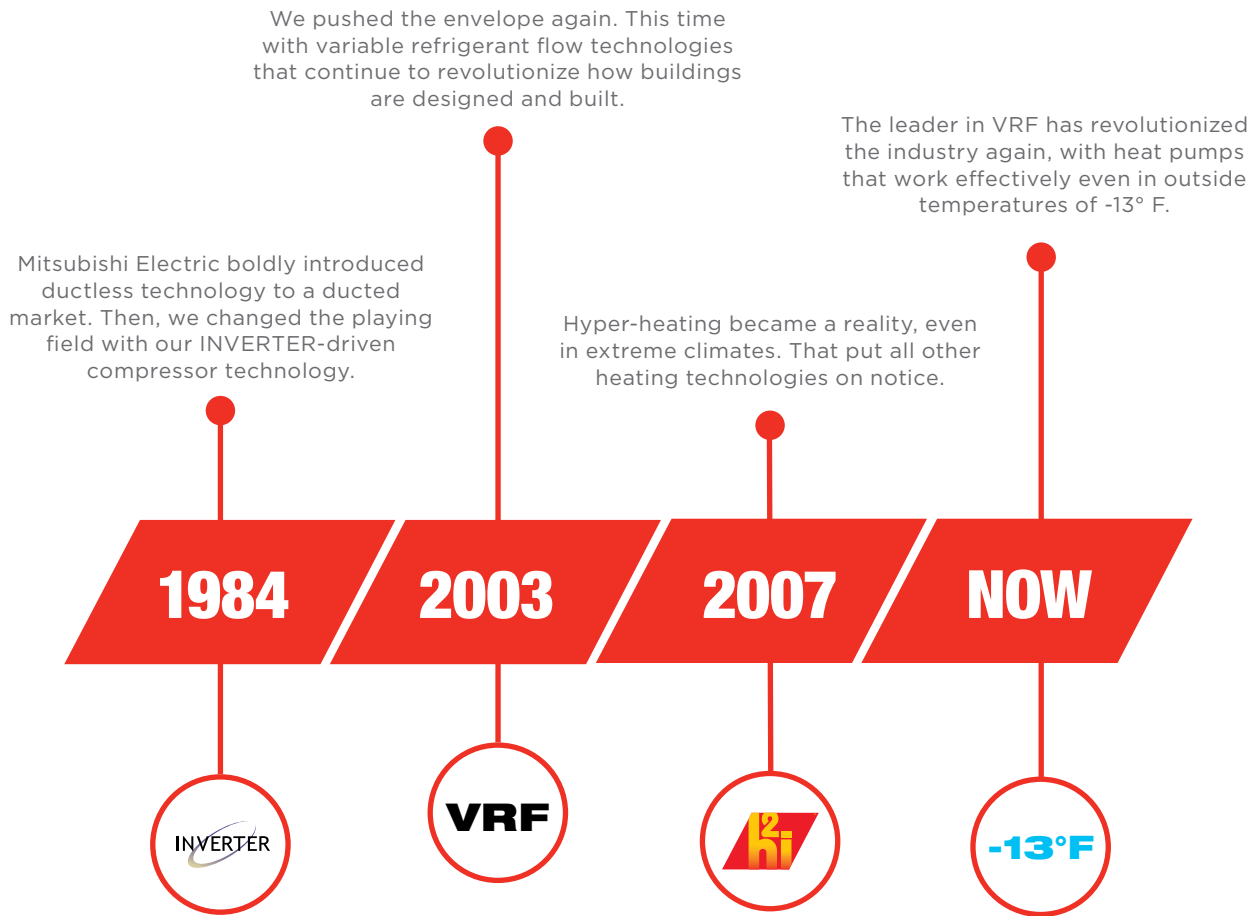
# 100% HEATING CAPACITY EVEN AT -4° F

MITSUBISHI ELECTRIC HAS REVOLUTIONIZED HEAT PUMPS, AGAIN.

As the recognized quality leader and top preferred ductless and VRF zoning heat pump brand, Mitsubishi Electric continues to pioneer on-demand building comfort technologies.

In our 30+ years of heat pump leadership, we have built the broadest network of qualified design, installation and technical professionals available.

Behind them stand the most extensive groups of applications, engineering and customer support staff with a mantra of building a better business together.



## WHY H2i®?

H2i TECHNOLOGY FROM MITSUBISHI ELECTRIC IS BECOMING THE NEW NORMAL, PROVIDING EXCEPTIONAL YEAR-ROUND COMFORT EVEN IN EXTREME CLIMATES.

### MITSUBISHI ELECTRIC H2i PRODUCTS PROVIDE:

- Superior heating performance.
  - Simultaneous heating and cooling down to -4° F outdoor ambient (R2-Series, two-pipe design).
  - 100% heating capacity at -4° F outdoor ambient (Y-Series, high-heat mode).
  - Up to 88% heating capacity down to -13° F outdoor ambient.
- Most complete family of hyper-heating, cold climate products from single-zone (9KBtu/h) to VRF multi-zone systems (up to 16 tons).
- Built-in base pan heater on select units.
- MSZ-FH wall-mounted ductless units offer i-see Sensor™ 3D.

# WHY H2i<sup>®</sup>? (cont'd)

**100% HEATING** @ **5°F**  
M-SERIES P-SERIES OUTDOOR

**100% HEATING** @ **0°F**  
R2-SERIES OUTDOOR

**100% HEATING** @ **-4°F**  
Y-SERIES OUTDOOR

## HOW DOES THE REVOLUTION IN COOLING AND HEATING BENEFIT YOU?

Our highly efficient hyper-heating systems will, in some cases, help decrease your overall equipment tonnage of heating dominated projects. This translates to lower first cost and a smaller outdoor system footprint, while eliminating the need for additional fossil fuel burning, or inefficient electric heating systems. That's better for the planet and your bottom line. Our proven residential and commercial success with H2i has now extended to areas of the country where historically heat pumps just couldn't work. Regions where subzero temperatures are the norm, like Sturgeon Bay, Wisconsin and Buffalo, New York.



"During the coldest months of the year, the Mitsubishi Electric split-ductless system has consistently maintained the temperature selected."

**First Congregational UCC Reverend**  
Neil D. Partington,  
Lake Mills, WI



"We liked this product because it was so simple and efficient. In high-performance buildings, you need to keep the mechanical system simple."

**Jung Passive House,**  
Michael Klinger, certified  
Passive House consultant,  
Holly, MI



"The arguments for the H2i system made a lot of sense, and we wound up recommending this new system to the Board," Burke said. "Everything came together beautifully. Village neighbors love the fact that they cannot even tell when the system is running."

**Montserrat College of Art, Jim Burke,**  
Windover Construction, Inc., Manchester, MA

"We found this VRF system - two Hyper-Heating (H2i™) INVERTER outdoor units with 40 tons of cooling and heating—that would immediately save us in monthly energy costs and drop the 300 amps of electrical service demanded by the groundsource equipment. When the 32 kilowatts from the solar array kicks in, we will actually be returning electrical service to the electric provider, New York's National Grid."



**Newfane Town Hall and Community Center,**  
Project Architect William L. Henderson, Buffalo, NY

"The Mitsubishi Electric system used in the project is very effective because it requires less duct work, the small outdoor unit tucks in easily on the rooftop, provides good indoor air quality, is energy-efficient and is extremely quiet. We're thrilled that the Northampton, Mass KFC-Taco Bell has been granted LEED Gold certification."



**Yum Brands' KFC Project Architect**  
Jonathan Balas, AIA, LEED AP

Visit [mitsubishipro.com](http://mitsubishipro.com) to see more.

# H2i<sup>®</sup> RESIDENTIAL SOLUTIONS M-SERIES

THE NEW NORMAL

Ductwork is inefficient, costly and soon to be a thing of the past. The MSZ-FH family of single-zone Hyper-Heating INVERTER™ residential systems offer year-round, high-efficiency cooling and heating for bedrooms, basements, sunrooms and more. Essentially, heat pumps are now a realistic option for any home, in any climate.

- Hyper-heating performance down to -13° F outdoor ambient.
- 100% heating capacity at 5° F outdoor ambient.



## MSZ-FH



### M-Series (MSZ-FH)

- Industry-leading efficiencies.
  - MSZ-FH09NA [30.5 SEER].
  - MSZ-FH12NA [26 SEER].
  - MSZ-FH15NA [21.5 SEER].



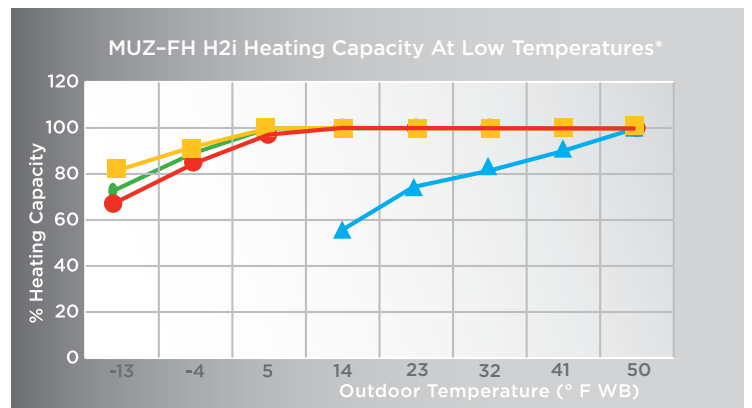
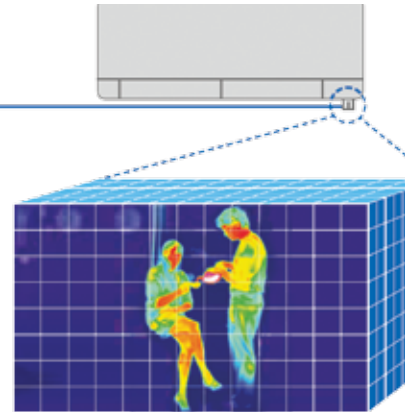
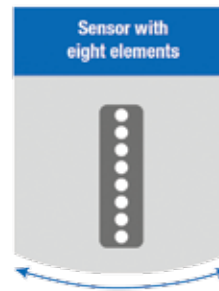
### M-Series (MSZ-FE)

- Industry-leading efficiencies.
  - MSZ-FE09NA [26 SEER].
  - MSZ-FE12NA [23 SEER].
  - MSZ-FE18NA [20.2 SEER].



- Triple-action Filtration.
  - Nano-platinum Filter.
  - Electrostatic Anti-allergen Enzyme Filter.
  - Deodorizing Filter.
- Double-vane air delivery for enhanced circulation.
  - Set each vane individually.
  - Indirect or direct setting option.
  - Natural flow setting.
- i-see Sensor™ 3D.
  - Infrared human sensing technologies to measure location of human (heat signatures) and i-see sensing floor temperature to deliver conditioned air to those areas by double-vane airflow.

- **NEW** multi-function wireless controller.
- Optional MHK1 wireless wall-mounted controller (works with Honeywell RIG for smart phone control).
- Wired wall-mounted controller (PAR-31MAA requires MAC-333IF).
- Simple MA remote controller (PAC-YT53CRAU requires MAC-333IF).



- MUZ-FH09NA
  - MUZ-FH15NA
  - MUZ-FH12NA
  - ▲ Standard Heat Pump
- \* Includes correction for defrost.

**NOTE:** Low ambient temperature conditions may require base pan heater (MSZ-GE and MSZ-FE 1:1 systems)



# H2i<sup>®</sup> RESIDENTIAL SOLUTIONS M-SERIES

## THE NEW NORMAL

Heat pumps are now a realistic option for any home, in any climate. The H2i<sup>®</sup> MXZ family of Hyper-Heating INVERTER™ residential systems offer year-round, high-efficiency heating and cooling. A variety of indoor units provide zone comfort control while the INVERTER-driven compressor and electric LEVs in the outdoor units provide closer control and higher efficiency with minimal power usage.



### H2i MXZ High Efficiency Heat Pumps | 6,000 - 54,000 Btu/h Capacity Range | 2-8 Zones



- ▶ 19.1 - 17.0 SEER, 11.3 - 9.8 HSPF, INVERTER-driven compressor.
- ▶ Quiet outdoor unit operation as low as 49 dB(A).
- ▶ Hyper-heating performance down to minus 13 degrees F outdoor ambient.
- ▶ 100% heating capacity at 5 degrees F outdoor ambient.
- ▶ Factory installed base heater
  - Prevents ice build up in extreme environments.
  - Active during defrost cycle.
- ▶ Optional M-NET adapter
  - Quickly integrate advance controllers.

MODEL	COOLING RANGE (BTU/H)	HEATING RANGE (BTU/H)
MXZ-2C20NAHZ	6,000 - 20,000	7,400 - 25,500
MXZ-3C24NAHZ	6,000 - 23,600	7,200 - 30,600
MXZ-3C30NAHZ	6,000 - 28,400	7,200 - 36,000
MXZ-4C36NAHZ	6,000 - 36,000	7,200 - 45,000
MXZ-5C42NAHZ	6,000 - 42,000	7,200 - 42,000
MXZ-8C48NAHZ	6,000 - 48,000	7,200 - 54,000

**HEATING** even when it's minus 13 degrees F outdoor ambient, producing up to 100% heating capacity at 5 degrees F.

#### HOT-START TECHNOLOGY

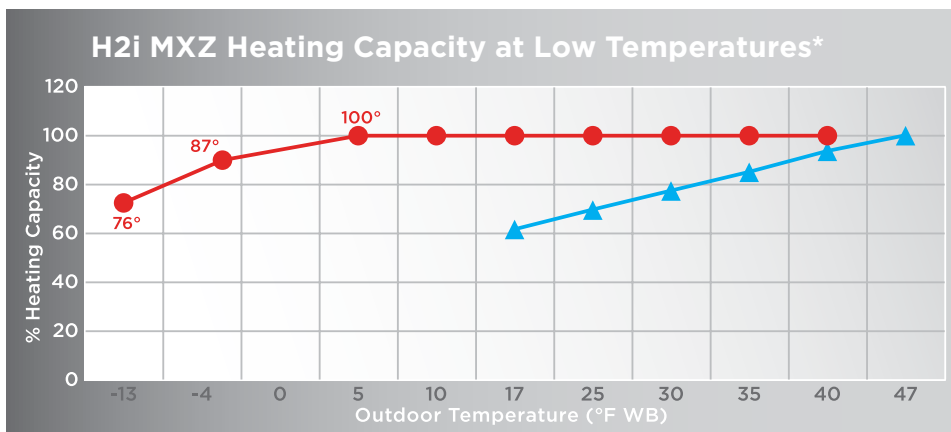
provides warmth from the start, reducing drafts.

#### MINIMAL MAINTENANCE

thanks to easily accessible filters, little or no ductwork to clean, and simple wiring between the indoor and outdoor units.

**YEAR-ROUND COMFORT** in extreme climates without the need for energy-consuming indoor supplemental heating devices.

## HEAT, AND LOTS OF IT

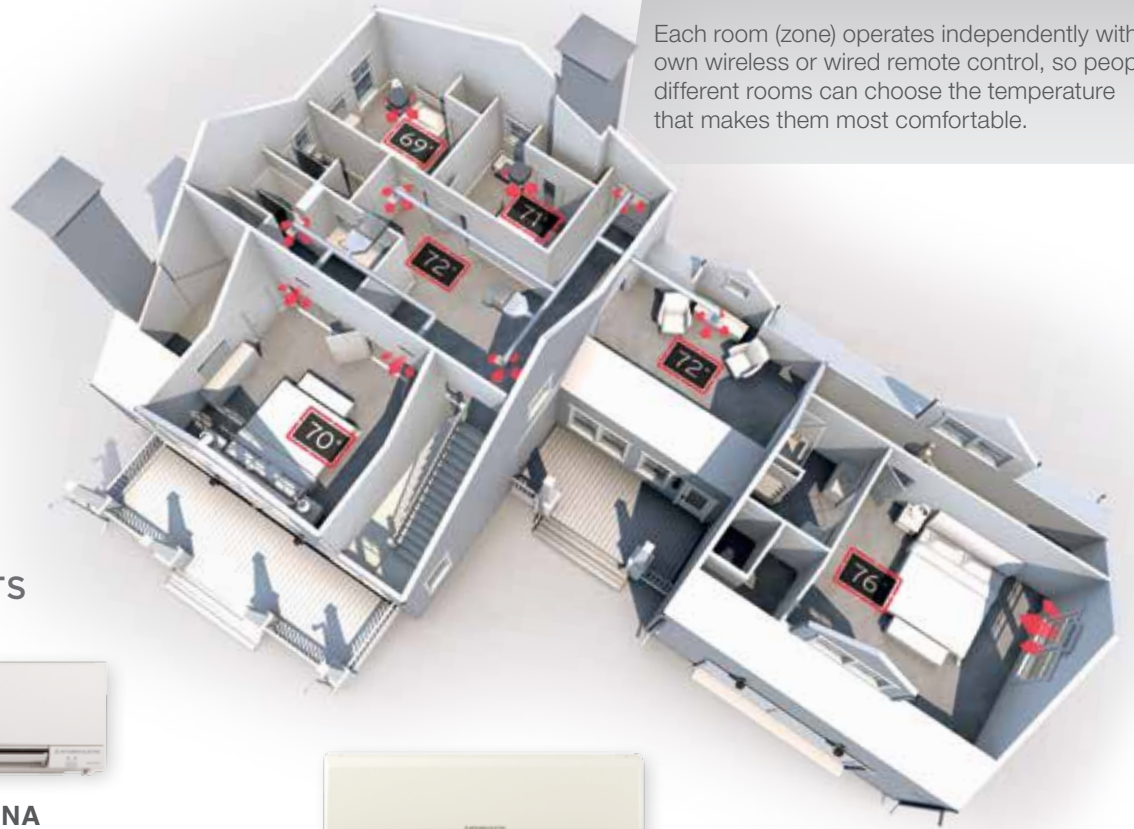


● MXZ-C-NAHZ ▲ Standard Heat Pump \* Includes correction for defrost.

**NOTE:** Low ambient temperature conditions may require base pan heater (MSZ-GE and MSZ-FE 1:1 systems)

New hyper-heating multi-zone units allow you to create an oasis of comfort throughout your entire home in the rooms you use most, any time of the year.

Each room (zone) operates independently with its own wireless or wired remote control, so people in different rooms can choose the temperature that makes them most comfortable.



## INDOOR UNITS



### MSZ-FH09, 12, 15NA

New sleek design offers many new features including new multi-functional wireless remote controller.

- ▶ Triple-action filtration including anti-allergen enzyme filter.
- ▶ Double-vane air delivery for enhanced circulation.
- ▶ i-see Sensor™ 3D senses human heat signatures.



### MSZ-GE09, 12, 15, 18, 24NA

Slim, wall-mounted units provide individual room control in a variety of applications.

- ▶ Offers wide angle of airflow, 150 degrees from left to right.
- ▶ Quiet operation as low as 19 dB(A).
- ▶ Provides cooling and heating in a wide range of capacities.



### MFZ-KA09, 12, 18NA

Floor-mounted indoor units are perfect for difficult areas that may be smaller or don't have usable wall space.

- ▶ Top and bottom discharge vanes.
- ▶ Wireless remote control with smart set feature.
- ▶ Front panel filter access for ease of cleaning.



### SLZ-KA09, 12, 15NA

Ceiling-recessed indoor units offer a wide airflow pattern for better air distribution in a less obtrusive style.

- ▶ Ventilation air knockouts available.
- ▶ Offers multiple airflow options.
- ▶ Built-in condensate lift mechanism (up to 20").



### SEZ-KD09, 12, 15, 18NA

Horizontal-ducted indoor units provide comfort and efficiency while staying hidden in ceiling or beneath the floor.

- ▶ Build-in condensate lift mechanism (up to 22").
- ▶ Static capability up to 0.20" WG.
- ▶ Optional filter box with MERV-8 filters.

# H2i<sup>®</sup> LIGHT COMMERCIAL SOLUTIONS P-SERIES

NASTY OUTSIDE. COZY INSIDE.

It's below freezing outside? No sweat. The P-Series Hyper-Heating INVERTER systems work to provide the perfect temperature inside. It's all possible thanks to our responsive INVERTER compressor and patented flash injection technology. Even at 0° F, air-conditioning is possible with our wind baffle accessory. These light commercial zone solutions are perfect for any business, place of worship or school in any region of the country.



## PUZ-HA



- 80% hyper-heating performance down to -13° F outdoor ambient.
- 100% heating capacity at 5° F outdoor ambient.
- PUZ-HA30NHA4: 18,000 - 30,000 Btu/h cooling / 18,000 - 34,000 Btu/h heating.
- PUZ-HA36NHA4: 18,000 - 34,200 Btu/h cooling / 18,000 - 40,000 Btu/h heating.
- PUZ-HA42NKA: 19,000 - 42,000 Btu/h cooling / 21,000 - 54,000 Btu/h heating.
- Many ENERGY STAR tax credit qualifying systems.
- Low ambient cooling to 0° F with wind baffle.

## P-Series (PUZ-HA) Features

**Hot Start Process** means warm air flows from the start.

**Auto Cooling/Heating Changeover**

**Multiple Fan Speeds**

**Automatic Restart** Peace of mind and ease of use in the event of power outage.

**Line Lengths** Up To 245 Ft.

**Twinning of Two** 18Kbtu/h Indoor units possible from one 36kbtu/h outdoor unit for wider distribution of capacity.

**Dry Mode**

### HOW IT WORKS

Our exclusive H2i P-Series units recover heat energy that is normally wasted in the flash process at the outdoor coil. H2i flash injection technology helps the system overcome issues associated with conventional heat pumps, such as decreases in low-side pressure, refrigerant mass flow rate, and operational capacity. What you'll see is that the H2i P-Series units deliver 100% of rated heating capacity at 5° F and 80% at minus 13° F outdoor ambient temperatures (without the use of energy-consuming electric-resistance heaters).



#### PKA Wall-mounted *ductless*

- Sleek design.
- Adjustable vane control.
- Easy-clean washable filter.



#### PCA Ceiling-suspended *ductless*

- Powerful air distribution.
- Ventilation air knockout.
- Four different airflow positions.
- Optional i-see Sensor™ kit.



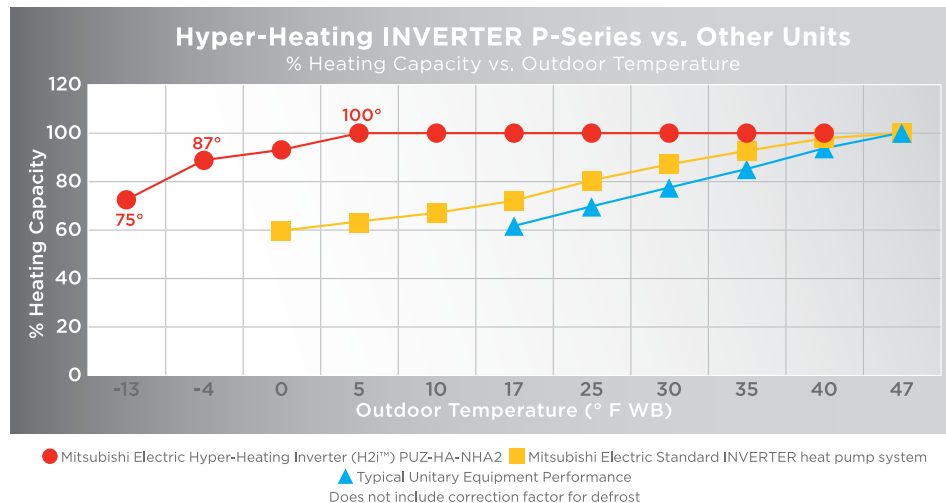
#### PEA(D) Horizontal *ducted*

- Low profile ceiling-concealed design for tight applications.
- Built-in condensation lift pump.
- Adjustable static pressure: PEA up to 0.2, PEAD up to 0.6.
- Optional filter boxes.



#### PLA Ceiling-recessed cassette *ductless*

- Low profile for tight spaces.
- Branch ducting and fresh air knockouts.
- Auto wave airflow in heating mode.
- Independent vane motor control.
- Optional i-see Sensor™ kit.
- Built-in condensation lift pump.
- Easy-clean washable filter.



### Low Temperature Heating Performance

#### PUZ-HA30NHA

COP	PKA	PLA	PCA	PEAD
47° F	3.20	2.72	3.13	3.41
17° F	1.84	1.63	1.81	1.90
5° F	1.62	1.41	1.60	1.73

#### PUZ-HA36NHA

COP	PKA	PLA	PCA	PEAD	PEA18 (x2)
47° F	3.26	3.44	3.40	3.53	3.61
17° F	1.85	2.10	1.94	2.06	2.06
5° F	1.64	1.90	1.70	1.82	1.82

#### PUZ-HA42NKA

COP	PLA	PCA	PEAD
47° F	3.02	3.39	3.70
17° F	1.98	2.00	2.16
5° F	1.79	1.85	2.00

# M- AND P-SERIES H2i<sup>®</sup> CONTROLLERS

All systems are RedLink™ enabled for MHK1 Wireless Remote Controller kit



- Connects any RedLINK Comfort System to the Internet to provide remote access from PC, smartphone or tablet.
- No monthly fee, free app download.
- Remotely monitor and control your cooling and heating system, at any time, from any place.
- View/change system settings and access multiple systems/zones.
- Provides over 90° temperature/comfort alerts through a dedicated website.
- Upgrades automatically as new features become available.



Just connect the Gateway device (far right) to your Internet router, download the free app, register a serial number with the Gateway website, and pair the system with the RedLINK™ enabled devices of your choice. You'll be ready to control in about 15 minutes.



## Wireless Wall-mounted Remote Controller and Wireless Receiver

- Installs anywhere with simple wall-mounted design.
- Large, backlit, easy-to-read display.
- Dual set point control with system changeover.
- Both controller and receiver enabled with RedLINK™ reliability.

The basic MHK1 Wireless Remote Controller Kit includes a Wireless Wall-mounted Remote Controller and a Wireless Receiver located with the indoor wall- or ceiling-mounted unit. You may choose to enhance your control convenience and flexibility with an optional Portable Central Controller, Outside Air Sensor and the new RedLINK™ Internet Gateway.



## Optional Wired Remote Controller (PAR31MAA):

- Backlit Display.
- Operation Modes: Cool, Heat, Dry, Fan, Auto, Ventilation (Lossnay™ control).
- Fan speed, airflow direction settings.
- Eight language options on display.
- Grouping: Controls up to 16 indoor units.
- Compatible with M-Series (requires MAC-333IF Interface) and P-Series Systems.
- Supports weekly timer operation (Supports Auto-off Timer).



## Optional MOS1 Outside Air Sensor

- Monitors outside air temperature and humidity.
- Displays on MHK1 Remote Controller and MCCH1 Portable Central Controller.



## Optional MCCH1 Portable Central Controller

- Control up to 16 RedLINK™ devices.
- Requires MHK1 per indoor unit.
- Monitor and control On/Off, Mode and Set Temperature.
- Schedule override capability.
- Does not interfere with other wireless devices.
- Displays outside air temperature and humidity when used with MOS1 Outside Air Sensor.

# H2i<sup>®</sup> COMMERCIAL SOLUTIONS CITY MULTI<sup>®</sup>

## TOTAL COLD CLIMATE CONTROL



(PURY-HP)

Add highly responsive multi-zone comfort to any building project, in any climate. Our H2i R2- and Y-Series VRF systems give you the flexibility to fit specific needs of any building.

It doesn't matter if you're dealing with a historic building renovation or new building construction; the system components are compact for convenient installation.

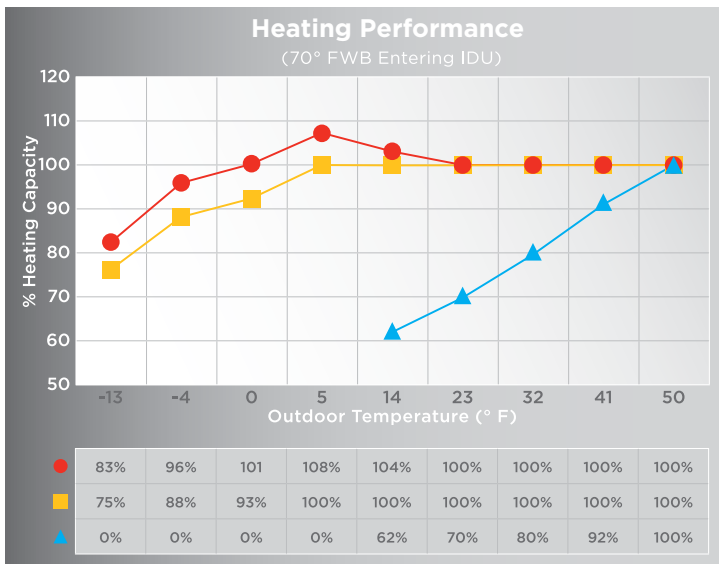


### R2-Series (PURY-HP)

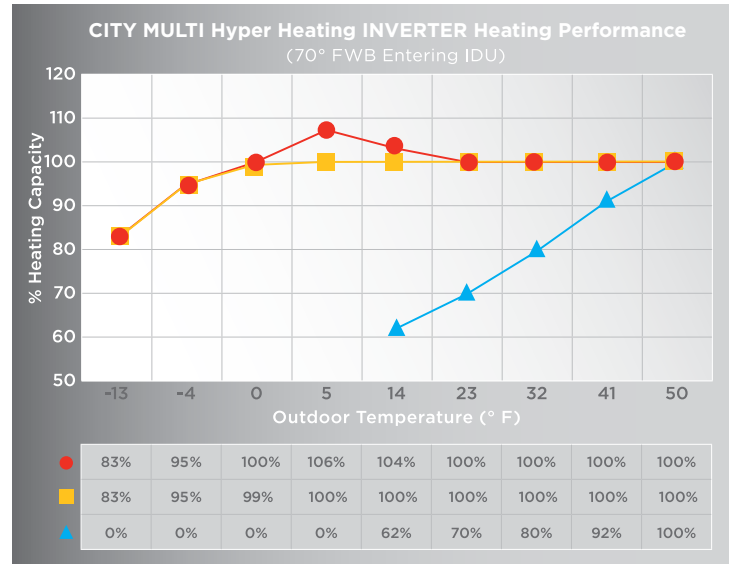
- 100% heating capacity at 0° F outdoor ambient.
- 85% heating capacity at -13° F outdoor ambient.
- Simultaneously heat and cool down to -4° F outdoor ambient.
- 2-pipe configuration for more efficient application.
- Built-in base pan heater (TKMU).
- Connects to all CITY MULTI indoor units.
- Units range from 6 to 16 tons nominal capacity.

### Y-Series (PUHY-HP)

- 100% heating capacity at -4° F outdoor ambient.
- 75% heating capacity at -13° F outdoor ambient.
- Connects to all CITY MULTI indoor units.
- Units range from 6 to 16 tons nominal capacity.



● PUHY-HP192TSJMU High-heat Setting   ■ PUHY-HP192TSJMU Standard-heat Setting   ▲ Standard Heat Pump

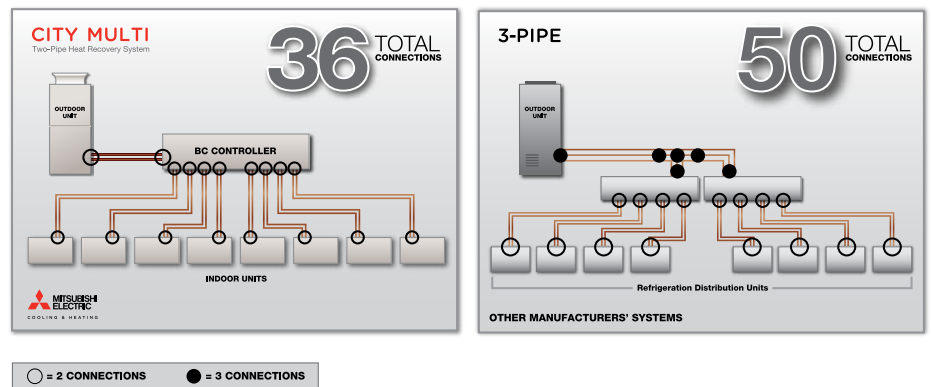


● PURY-HP192TSKMU (High Heat)   ■ PURY-HP192TSKMU (Standard)   ▲ Traditional Heat Pump

## The Two-pipe Advantage

Simultaneous cooling and heating with just two pipes is something no other VRF manufacturer can do. As the number of indoor units grows, so do the two-pipe installations savings, in terms of connections (refrigerant and electrical) as well as maintenance access.

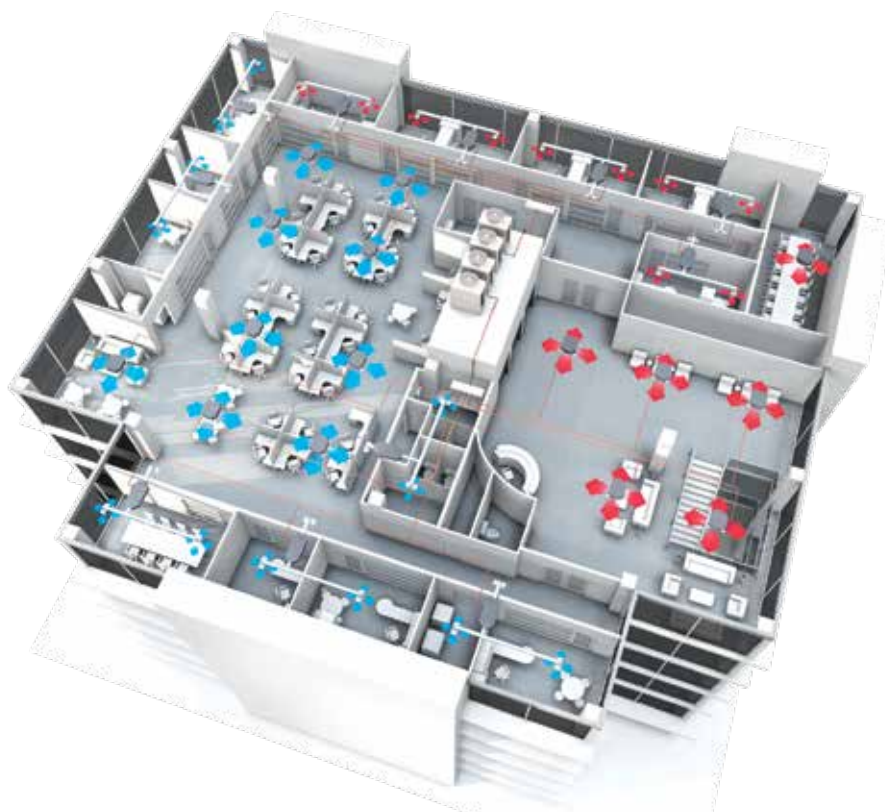
### FEWER CONNECTIONS REQUIRED FOR SIMULTANEOUS OPERATION



## Simultaneous Operation






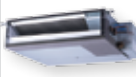
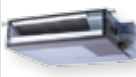
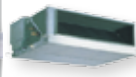

CITY MULTI® R2-Series VRF zoning systems provide simultaneous cooling and heating any time of year. This innovation optimizes energy use by using heat normally rejected by the condenser within the building.

- Cooling area
- Heating area



# CITY MULTI® H2i® R2- AND Y-SERIES INDOOR UNITS AND CONTROLS

## INDOOR UNITS

	DUCTLESS					DUCTED			
Indoor Unit Type	Wall-mounted	Ceiling-recessed Cassette (four-way outlet)	Ceiling-recessed Cassette (single outlet)	Ceiling-suspended	Floor-standing (exposed or concealed)	Ceiling-concealed Ducted	Ceiling-concealed Ducted (low profile)	Ceiling-concealed Ducted (high static)	Vertical-concealed Ducted
Nominal KBtu/h	 6-30	 8-36	 6-15	 15-36	 6-24	 6-54	 6-24	 15-96	 12-54

## CONTROLLERS

REMOTE CONTROLLERS	CENTRAL CONTROLLERS	ADVANCED HVAC CONTROLLER AND I/O CONTROLLERS	SYSTEM INTEGRATION
 SmartME LCD Touch-screen Controller (PAR-U01MEDU-J)	 Touch-screen Controller (TC-24B)	 Advanced HVAC Controller (DC-A210)	 LonWorks® Interface (LMAPO4U)
 Handheld Wireless Controller (PAR-FL32MA)	 Touch-screen and Web Browser Controller (AE-200A/AE-50A)	 Digital In/Digital Out Board (PAC-YG66DCA)	 BACnet® Interface (BAC-HD150)
 Simple MA Controller (PAC-YT53CRAU)	 Web Browser Controller (EB-50GU-A)	 Analog In Board (PAC-YG63MCA)	