HYBRID
HEATING & COOLING

DISCOVER A NEW LEVEL OF POWER
& VERSATILITY IN HOME COMFORT

MITSUBISHI ELECTRIC
Heating and Cooling

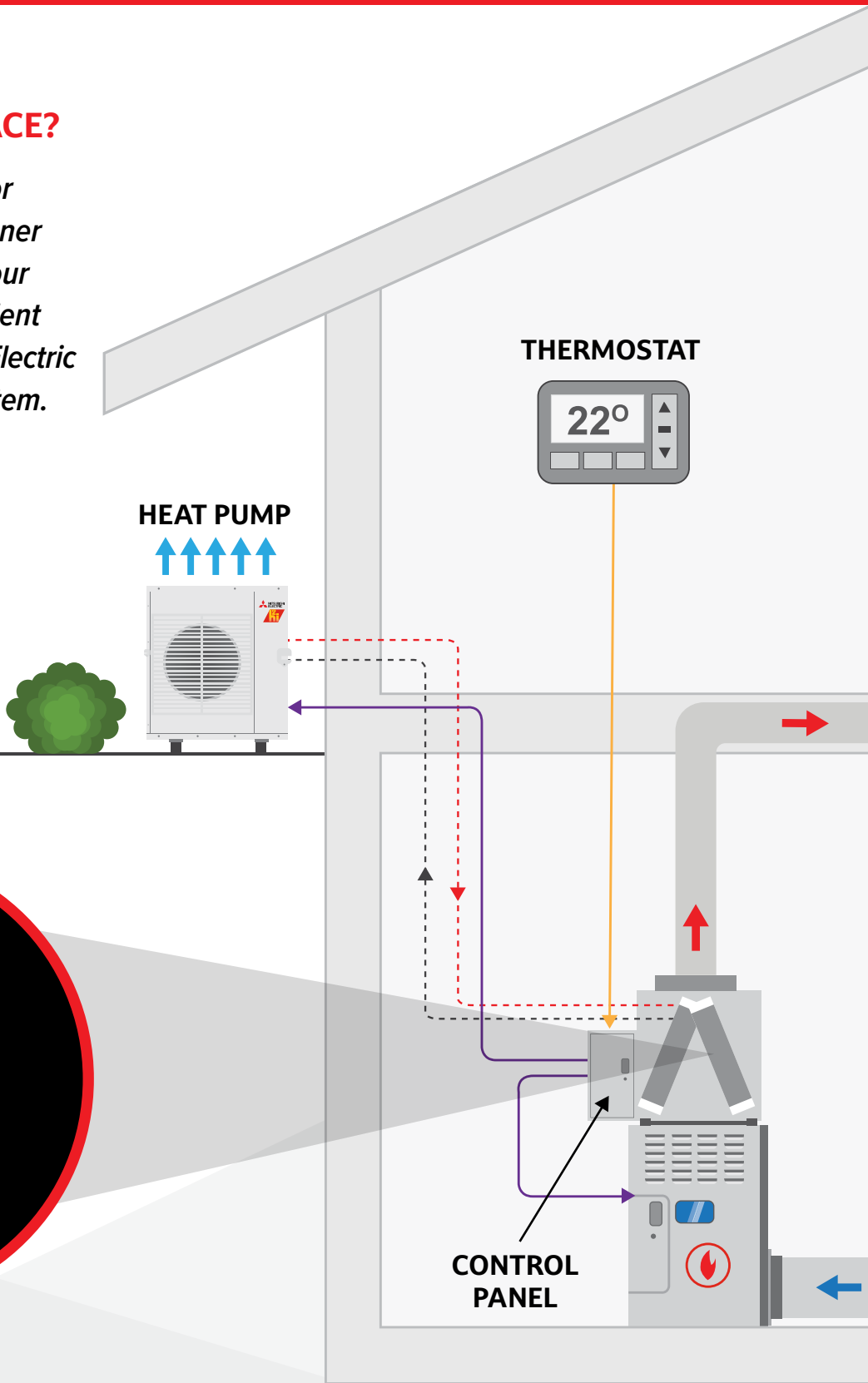
hybridheatingandcooling.ca

HYBRID, A POWERFULLY VERSATILE IDEA.

You've probably heard of hybrid cars before, but what is hybrid heating? Put simply, hybrid heating is an approach to heating that allows a system to choose the source of energy used to heat a home, switching between the heat pump and furnace.

ALREADY HAVE A FURNACE?

You can add an air conditioner or replace your current air conditioner with a heat pump and bolster your heating with the incredibly efficient electric power of the Mitsubishi Electric Hybrid Heating and Cooling system.



WHAT IS A HEAT-PUMP?

A heat pump is the next evolution in mainstream heating and cooling. They are known to be the most efficient and sustainable way to heat a home because they transfer more heat energy than they consume. In cooling mode, a heat pump acts similar to a standard air conditioner. In heating mode, rather than burn fossil fuels or using inefficient technology, a heat pump runs on electricity to efficiently extract heat from the air outside and move it inside.

FURNACES & HEAT PUMPS: WHAT ARE THE DIFFERENCES?

FURNACES

Heats
Provides heating only.

Lower Efficiency
Energy efficiency rate of up to 99%.*

Burns Fuel
Creates heat by burning fossil fuels like gas and propane.

Increases GHG
Furnaces running on fossil fuels like gas and propane produce carbon emissions which harms the environment.

Inconsistent Heat
Only cycles between on and off.

HEAT PUMPS

Heats and Cools
Provides both heating and cooling.

Higher Efficiency
Energy efficiency rate of up to 425%.†

Transfers Heat
In heating mode, extracts heat from outside and moves it inside. In cooling mode, the reverse occurs.

Produces No GHG
Runs on electricity instead of fossil fuels, producing zero carbon emissions.

Consistent Temperature
Adjusts to match heating needs.

* AFUE
† COP of 4.25

With Mitsubishi Electric's Hybrid Heating and Cooling System, homeowners can improve their home's comfort and sustainability with a system that delivers the best of both worlds – an electric heat pump OR furnace as their heating source.

KEY FEATURES & BENEFITS

EXPERIENCE A HYBRID REVELATION

The Mitsubishi Electric Hybrid Heating and Cooling System provides energy saving and environmentally friendly heating and cooling all-year round. But the advantages don't stop there. It also has all the benefits you see here – all while providing the perfect comfort level for your home.

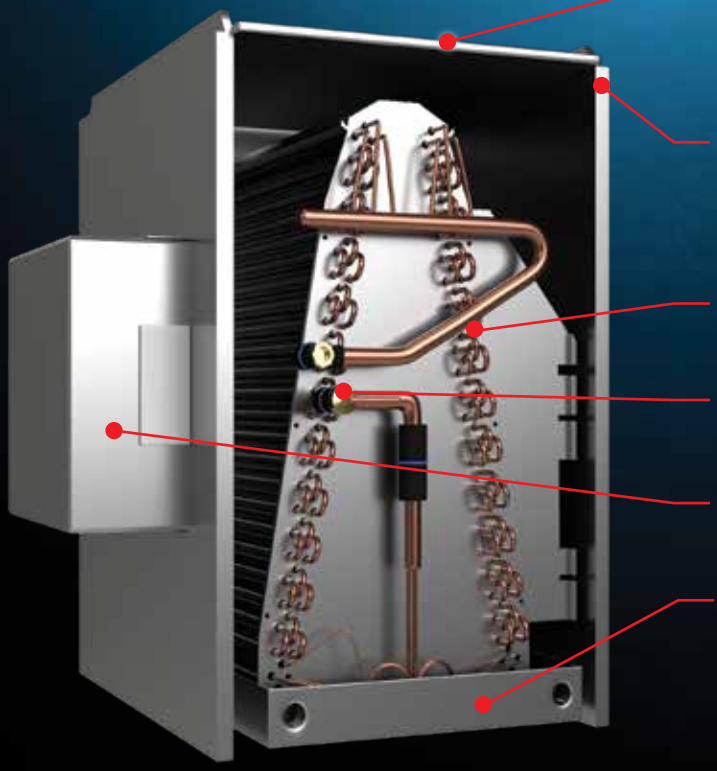
COMPATIBLE WITH YOUR EXISTING FURNACE**

Our Hybrid Heating and Cooling System stands out in the Canadian market due to its compatibility with any brand of gas, propane and electric furnace.**

BRILLIANT LOGIC

This Hybrid System goes beyond the heat pump. It's equipped with a built-in Optimum Control Logic that can be set to switch from your furnace to your heat pump (or vice versa) whenever it's most efficient. It keeps you comfortable while using the least amount of energy, reducing your CO_2 emissions and the amount you pay for your carbon tax. Now that's a bright idea.

**Furnace must comply with the ANSI Z21.47.CSA2.3 standard. Excludes Oil or Drum type furnaces. Do not install the PAA on any furnaces or applications where supply air temperature could exceed 93.3 °C / 200 °F, or where the furnace output capacity is greater than 300% of the rated PAA heating capacity. See Installation Manual for further information.



Available in multiple sizes and capacities:

- 18, 24, 30 kBtu/h | 14.5" deep, 17.5" wide | 26.4" high
- 36, 42 kBtu/h | 17.5" deep, 21" wide | 31" high

Flexible Installation:

- Vertical, downflow and horizontal left/right
- Control box can be mounted anywhere

Smaller copper tube diameter with grooved design provides more efficient heat transfer

Flare piping connections for quick, clean, and simple installations with no need for brazing

Automatically switches between heat pump and furnace operation to ensure comfort and maintain efficiency

High quality drain pan material with low moisture absorption and high heat capability

*All versions of models MXZ-4C36NAHZ, MXZ-5C42NAHZ, MXZ-8C48NAHZ, PUZ-HA24NHA, PUZ-HA30/36NKA. Includes tolerance. Units can operate down to -30°C and beyond, depending on conditions. To be installed by a trained and licensed refrigeration mechanic. Suitable for installation with an ANSI certified gas furnace (Z21.47/CSA2.3). For detailed requirements, review PAA Installation Manual at: http://mitsubishitechinfo.ca.

10 YEAR† PARTS & COMPRESSOR WARRANTY

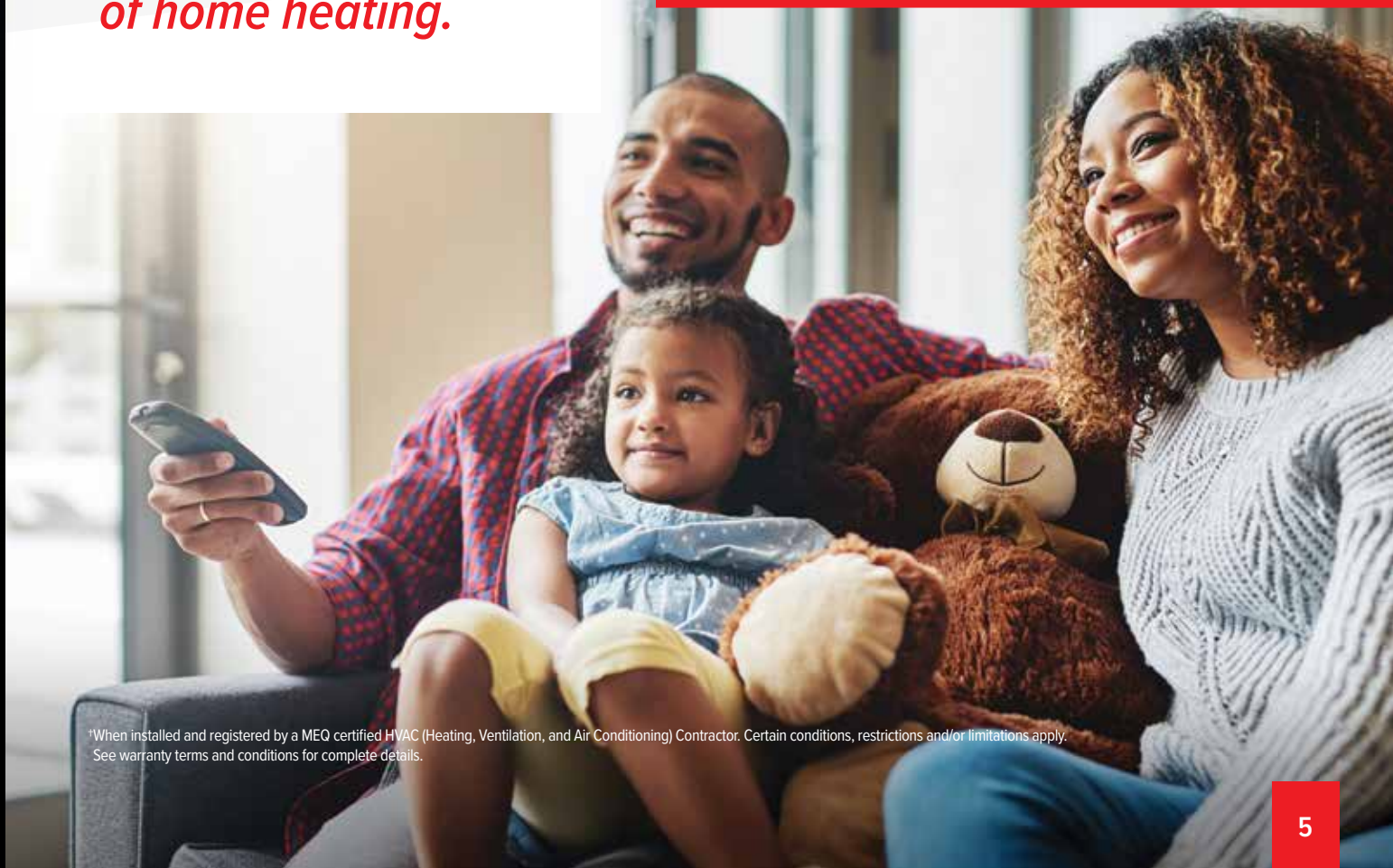
With over 100 years of experience, Mitsubishi Electric is known for its exceptional quality and reliability. We are so confident in our product that each system is backed by our 10 year parts and compressor warranty.†

SMALL SIZE. LOW NOISE.

Mitsubishi Electric's outdoor units are whisper quiet and hybrid-compatible units are only 13 inches deep – which sits perfectly alongside your exterior wall and gives you back more of your precious backyard and patio space than a traditional A/C system can.

- 100% heating power at -15°C
- Available in standard or Cold Climate heat pump featuring Hyper Heat (H2i™) technology that operates down to -30°C*
- Superior efficiency AC replacement
- Blending of technologies for comfort, energy savings and environmental benefit
- Reduces fossil fuel consumption and emissions
- Compatible with multi-zone systems addressing hot or cold spots in the home
- Integration with any existing gas/ electric/propane furnace**

Electric and Hybrid heating is the future of home heating.



†When installed and registered by a MEQ certified HVAC (Heating, Ventilation, and Air Conditioning) Contractor. Certain conditions, restrictions and/or limitations apply. See warranty terms and conditions for complete details.

MULTI-ZONE
COMFORT THAT GOES BEYOND

With the Hybrid Heating and Cooling System, you have the option to heat and cool specific zones to their own unique comfort levels. We call this “Multi-Zone” heating and cooling, and you can create up to 8 different zones, each with their own unique temperature. The bedroom, your children’s playroom, the kitchen, and other areas can be set to be cooler, warmer, or even off entirely for greater efficiency. With our Multi-Zone system, you can have the best of everything – both central cooling and hybrid heating as well as individual room comfort.

Hybrid systems consume less energy and produce less GHG emissions than gas furnaces alone.

IT’S THE RIGHT TIME TO FLIP THE SWITCH.

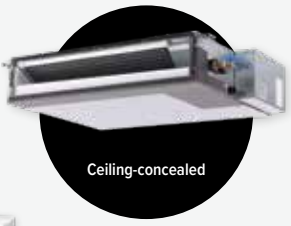
Green initiatives like Canada’s 2030 Emissions Reduction Plan are right around the corner, making it the perfect time to switch to a more carbon-efficient electric heating and cooling system. Heat pumps do not produce any greenhouse gas emissions, contributing to our reduction goals.

A SOLUTION FOR ANY HOME

Our Hybrid Heating and Cooling System is designed to provide unparalleled levels of flexibility in home comfort. In addition to providing central heating and cooling, there is also the option of addressing hot and cold spots in your home, like that room over the garage that tends to get very hot in the summer.

Multi-zone indoor units:


Wall-mounted


Ceiling-concealed


4-Way Cassette


Floor-mounted


One-Way Cassette


Multi-Position

STANDARD HEAT PUMPS & AIR CONDITIONERS

INDOOR UNIT MODEL			PAA-A18AA/BA	PAA-24AA/BA	PAA-30AA/BA	PAA-36BA/CA	PAA-42BA/CA
OUTDOOR UNIT MODEL			PUZ/PUY-A24NHA	PUZ/PUY-A24NHA	PUZ/PUY-A30NHA	PUZ/PUY-A36NKA	PUZ/PUY-A42NKA
Capacity Rated	Cooling	Btu/h	18,000	24,000	30,000	36,000	42,000
Capacity Rated	Heating@8°C	Btu/h	19,000	26,000	32,000	38,000	46,000
Capacity Rated	Heating@-8°C	Btu/h	13,800	15,400	20,800	29,000	32,400
Capacity Max	Heating@-15°C	Btu/h	12,400	13,900	18,700	26,300	29,300
Power Consumption Max	Heating@-15°C	W	1,400	1,600	2,000	2,800	3,200
EER/EER2	Cooling		**12.5 / 12**	**12.5 / 11.5**	**10 / 9.5**	**11 / 9.5**	**9.5 /9**
SEER/SEER2	Cooling		**17.5 / 15**	**17 / 15**	**16 / 14.5**	**16.5 / 15**	**15.5 / 14.3**
HSPF (IV)/HSPF (IV)2/HSPF (V) 2	Heating		**9.5 / 8.5 / 6.8**	**9.5 / 8.5 / 6.7**	**10.5 / 8.8 / 7.1**	**9.5 / 8.5 / 7.2**	**10 / 8.5 / 7.1**
COP (8°C/-8°C/-15°C)	Heating		**3.2 / 2.52 / 2.6**	**3.55 / 2.44 / 2.55**	**3.55 / 2.57 / 2.74**	**3.30 / 2.67 / 2.75**	**3.2 / 2.36 / 2.68**
Capacity Control			Variable Speed Compressor (VCSi)				
Refrigerant			R-410A				
Power Supply	V, Phase, Hz		1 phase, 60Hz,208/230V				
Indoor	Dimensions	W (inches)	14-1/2 / 17/1/2	14-1/2 / 17/1/2	14-1/2 / 17/1/2	17/ 1/2 / 21	17-1/2 / 21
		D (inches)	21-3/8	21-3/8	21-3/8	21-3/8	21-3/8
		H (inches)	26-3/8	26-3/8	26-3/8	31	31
	Weight -Unit+panel	lbs	66/74	66/76	66/76	85/100	85/100
	Airflow	CFM	525	700	875	1050	1225
Outdoor	Dimension	W (inches)	37 13/32			41 5/16	
	(H x W x D)	D (Inches)	13				
		H (Inches)	37 1/8			52 11/16	
	Unit Operating Temp. Range	Cooling Intake Air Temp. (Maximum/Minimum)	D.B. 46°C | D.B. -18°C Requires ME windscreen for operation below -5°C				
		Heating Intake Air Temp. (Maximum/Minimum)	D.B. 21°C | D.B. -20°C				
	Weight	lbs.	190	190	261		283
	Airflow	CFM Dry	1940	1940	3880		3319
	Sound	dB(A) cool/heat	52/53				49/51
	MOCP	A	27	27	40	42	44
	MCA	A	17	17	24	26	36
	Pipe Size	Liq. X Gas	3/8 x 5/8				
	Max. Height Difference	Ft. (m)	100 (30)				
	Max. Pipe Length	Ft. (m)	165 (50)	165 (50)	245 (75)		

COLD CLIMATE HEAT PUMPS

ZUBA HYBRID

INDOOR UNIT MODEL			PAA-24AA/BA	PAA-30AA/BA	PAA-36B/CA
OUTDOOR UNIT MODEL			PUZ-HA24NHA	PUZ-HA30NKA	PUZ-HA36NKA
Capacity Rated	Cooling	Btu/h	24,000	30,000	36,000
Capacity Rated	Heating@8°C	Btu/h	26,000	32,000	38,000
Capacity Rated	Heating@-8°C	Btu/h	16,000	23,000	28,200
Capacity Max	Heating@-15°C	Btu/h	26,000	32,000	38,000
Capacity Max	Heating@-25°C	Btu/h	20,800	25,600	30,400
Total Input (Rated)	Cooling	W	2,180	2,400	3,270
Power Consumption Max	Heating@-15°C	W	4,100	4,500	5,400
EER/EER2	Cooling		**11 / 14.3**	**12.5 / 14.5**	**11 / 14.3**
SEER/SEER2	Cooling		**15 / 14.3**	**16 / 14.5**	**15.5 / 14.3**
HSPF (IV)/HSPF (IV)2/HSPF (V)2	Heating		**9.5 / 8.5 / 7.1**	**10 / 8.8 / 7.2**	**9.8 / 8.8 / 7.3**
COP (8°C/-8°C/-15°C)	Heating		**3.55 / 2.02 / 1.85**	**3.55 / 2.04 / 2.08**	**3.15 / 1.97 / 2.06**
Capacity Control			Variable Speed Compressor (VCSi)		
Refrigerant			R-410A		
Power Supply	V, Phase, Hz		208/230V,1 phase, 60Hz		
Indoor	Dimensions	W (inches)	14 - 1/2 / 17 - 1/2	14 - 1/2 / 17 - 1/2	17 - 1/2 / 21
		D (inches)	21 - 3/8	21 - 3/8	21 - 3/8
		H (inches)	26 - 3/8	26-3/8	31
	Weight	lbs	66/76	66/76	85/100
	Airflow	CFM	700	875	1050
Outdoor	Dimension	W (inches)	37 13/32	41 5/16	
	(H x W x D)	D (Inches)	13		
		H (Inches)	37 1/8	52 11/16	
	Unit Operating Temperature Range	Cooling Intake Air Temp. (Maximum/Minimum)	D.B. 46°C | D.B. -18°C Requires ME windscreen for operation below -5°C		
		Heating Intake Air Temp. (Maximum/Minimum)	D.B. 24°C | D.B. -25°C		
	Weight	lbs.	190	261	
	Airflow	CFM Dry	1940	3880	
	MOCP	A	27	40	42
	MCA	A	17	24	26
	Pipe Size	Liq. X Gas	3/8 x 5/8		
	Max. Height Difference	Ft. (m)	100 (30)		
	Max. Pipe Length	Ft. (m)	165 (50)	245 (75)	

NOTES

ENERGY STAR PARTICIPANT

R-410A OZONE-FRIENDLY REFRIGERANT

MITSUBISHI ELECTRIC thinks green

AHRI CERTIFIED

Mitsubishi Electric MEQuality

Environmental Sustainability Vision 2050

VCSi TECHNOLOGY

10 YEAR† PARTS & COMPRESSOR WARRANTY

Changes for the Better

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