



Atom X

Mini VRF Inverter Technology
One to One Indoor Units
Up to 18 SEER2

Multi-professional certification



SOLUTION 1

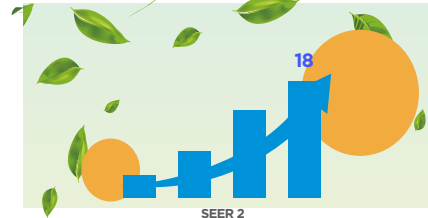
OUTDOOR UNIT + AIR HANDLER/FURNACE

(COMMUNICATING OR 24V PROTOCOL)

A single outdoor unit can be connected to one newly installed or existing AHU or furnace

01 High Energy Efficiency

SEER 2 can reach 18



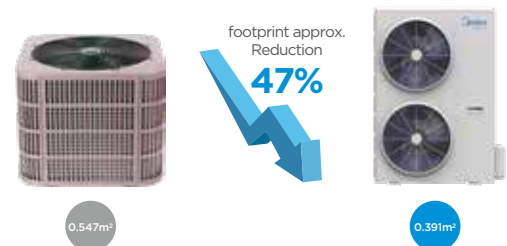
02 Easy System Upgrade

Backward compatible to existing 24V indoor unit and thermostat



03 Space Saving

Footprint approx. reduction 47%



04 Communicating or 24V connection



SOLUTION 2

OUTDOOR UNIT + 2X AIR HANDLER/FURNACE

(24V PROTOCOL)

A single outdoor unit can be connected to two AHU or furnace (24V protocol) with individual thermostat to achieve individual zone control)



Horizontal Left



Vertical Upflow

01 AHU Multi Position

Multi positioned AHU can be installed in 4 positions:

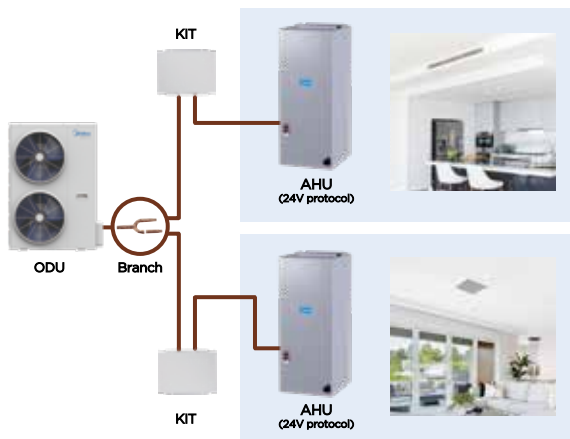
- Vertical Upflow
- Horizontal Left
- Vertical Downflow
- Horizontal right

02 Individual Zone Control

A single outdoor unit can be connected to two AHU or furnace (24V protocol) with individual thermostat to achieve individual zone control), more energy-saving and more comfortable.



04 System Configurations



03 Space Saving

A single outdoor unit can be connected to two AHU



SOLUTION 3

OUTDOOR UNIT + VRF IDU + AIR HANDLER

(24V)

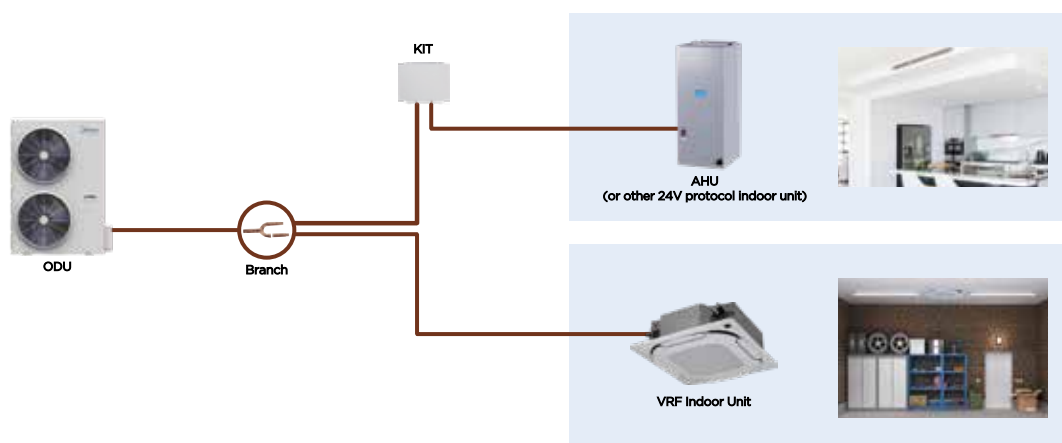
Large space air conditioning and independent space temperature control can be achieved through one system



01 Easy System Upgrade

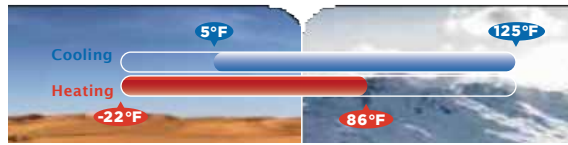
Install additional VRF IDU to the existing 24V system

02 System Configurations



Wide Operating Range

AtomX Series can operate at temperatures as low as -22°F for heating and up to 125°F for cooling.



R454B Refrigerant

R454B is a lower GWP, better performance refrigerant that is kinder to the environment.



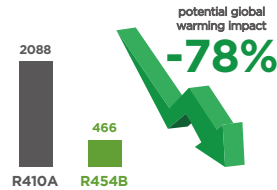
ECO Friendly

- Lower GWP 466
- Less greenhouse gases emission



Better Performance

- Higher heat transfer coefficient
- Less pressure loss
- Higher heat recovery efficiency



Refrigerant Safety Protection

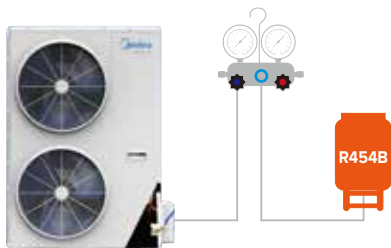
Detect refrigerant leakage of the indoor unit. The shut-off device will cut off the refrigeration pipeline to prevent the R454B refrigerant of the outdoor unit from leaking into the room.

*The shut-off device must be purchased from Midea



Automatic Refrigerant Charging

Compared to manual refrigerant charging, automatic refrigerant charging greatly simplifies the process, making installation and maintenance easier and more efficient.



Automatic refrigerant charging

- Connect refrigerant tank to the outdoor unit & activate automatic charging function
- Close the shut-off valve automatically & finish the filling process

Automatic Method



Manual refrigerant charging

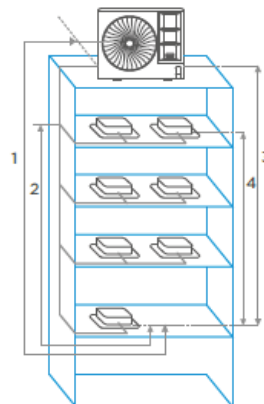
- Calculate additional refrigerant quantity
- Connect refrigerant tank to the outdoor unit & start the filling process
- Observe the weight scale to check the refrigerant charge
- Close the shut-off valve manually & finish the filling process

Traditional Method

Long Piping Capability

The AtomX can support a total piping length of up to 164ft, an installation height difference of up to 98ft between indoor and outdoor units, AtomX perfectly suitable for small and medium-sized buildings.

Item		Capability (ft)
		One to one
		1.5-5Ton
Total piping length		164
Largest level difference between IDUs and ODU ¹	ODU up	98
	ODU down	98



AtomX Outdoor Unit Lineup



1.5/2.0 tons

2.5/3.0 tons

4.0/5.0 tons

AtomX One to One Indoor Unit Lineup



Multi-Position Air Handler

Capacity range:18.2/24.4/30/36/48/60kBtu/h (6 models)



Acoils+Furnace

Capacity range:40/60/80/100/120kBtu/h (6 models)



Cased A-Coil

Capacity range:18.2/24.4/30/36/48/60kBtu/h (6 models)



Uncased Ceiling Mount

Capacity range:18.2/24.4/30/36kBtu/h (4 models)



Cased Ceiling Mount

Capacity range:18.2/24.4/30/36kBtu/h (4 models)



Wall Mount Air Handler

Capacity range:18.2/24.4/30/36kBtu/h (4 models)

INDOOR UNIT SPECIFICATIONS



AHU

Model		MVME24B2MN10TB	MVME36B2MN10TB	MVME48C2MN10TB	MVME60C2MN10TB
Power supply		208V/230V,1Ph,60Hz			
Cooling capacity	Btu/h	24,000	34,200	47,000	52,000
Heating capacity	Btu/h	24,000	34,200	48,000	55,000
Net dimensions (WxHxD)	in.	19-5/8 × 46-1/2 × 21-5/8	19-5/8 × 46-1/2 × 21-5/8	22 × 54-1/2 × 24	22 × 54-1/2 × 24
Packed dimensions (WxHxD)	in.	22-5/16 × 52-9/16 × 25-3/8	22-5/16 × 52-9/16 × 25-3/8	24-11/16 × 60-5/8 × 27-11/16	24-11/16 × 60-5/8 × 27-11/16
Net/Gross weight	lbs	118/144	121/148	151/183	160/192



Acoil

Model		MCPM3036BN10TH	MCPM4860CN10TH	MCPM4860DN10TH
Cooling capacity	Btu/h	30,000/36,000	48,000/60,000	48,000/60,000
Net dimensions (WxHxD)	in.	17-1/2 × 20 × 21	21 × 30 × 21	24-1/2 × 30 × 21
Packed dimensions (WxHxD)	in.	24-15/16 × 20-5/8 × 22-1/4	24-15/16 × 24-3/16 × 32-5/16	24-15/16 × 27-9/16 × 32-5/16
Net/Gross weight	lbs	48.5/53.6	83/89	87/94



Furnace

Model		MGV96U060B3C	MGV96U080B3C	MGV96U100C5C	MGV96U100D5C
Power supply		115V,1Ph,60Hz			
Heating capacity	Btu/h	60000	80000	100000	100000
Net dimensions (WxHxD)	in.	17-1/2 × 33-3/4 × 28-3/4	17-1/2 × 33-3/4 × 28-3/4	21 × 33-3/4 × 28-3/4	24-1/2 × 33-3/4 × 28-3/4
Packed dimensions (WxHxD)	in.	21-1/16 × 35-7/16 × 30-15/16	21-1/16 × 35-7/16 × 30-15/16	23-7/16 × 35-7/16 × 30-15/16	27 × 35-7/16 × 30-15/16
Net/Gross weight	lbs	135/147.5	141/153	162/173	170/185

OUTDOOR UNIT SPECIFICATIONS

Model			MDV-V18WMN10T	MDV-V24WMN10T	MDV-V30WMN10T	MDV-V36WMN10T	MDV-V48WMN10T	MDV-V60WMN10T
Nominal Size - Tons			1.5	2	2.5	3	4	5
Cooling ¹	Capacity	Btu/h	18000	23000	30000	34000	48000	52000
	EER2	Btu/W	12	11.7	11.8	11.7	10.3	10
	SEER2	Btu/W	17.1	17.7	18.0	17.2	17.0	16.0
Heating ²	Capacity	Btu/h	18000	24000	30000	36000	48000	54000
	COP2	W/W	3.80	3.60	3.70	3.60	3.55	3.50
	HSPF IV	Btu/W	9.25	9.20	10.00	9.40	9.40	9.30
	HSPF V	Btu/W	7.75	7.70	7.70	7.70	7.30	7.20
Heating ³	Capacity	Btu	18000	20000	30000	36000	41000	45000
	COP	W/W	1.95	1.90	1.95	1.90	1.95	1.95
	Capability ratio	%	100%	83%	100%	100%	85%	83%
Ambient Temperature Range	Cooling (DB)	°F	5~125					
	Heating(DB)	°F	-22~86					
Refrigerant	Type		R-454B	R-454B	R-454B	R-454B	R-454B	R-454B
	Charge Amount -	oz	58.2	58.2	109.3	109.3	144.6	144.6
Connections - in.	Liquid pipe	in. (I.D.)	3/8	3/8	3/8	3/8	3/8	3/8
	Gas pipe (low pressure)	in. (I.D.)	5/8	5/8	5/8	5/8	3/4	3/4
Unit	Net dimensions (WxHxD)	in.	39-1/8 × 28 × 16-3/4			40-11/16×34×20-9/16		38-1/2×52-1/4×15-3/4
	Packed dimensions (WxHxD)	in.	41-5/6 × 35-1/16 × 19-1/16			44-1/16 × 38-9/16 × 22-1/16		42-5/8 × 56-1/2 × 17-1/8
	Net/Gross Weight	lbs	121/147			207/229		227/249
Sound Data		dB(A)	55	56	59	59	60	60

Note:

1. 95°F wet bulb/75°F dry bulb outdoor air temperature and 80°F dry bulb/67°F wet bulb entering indoor coil air, connected AHU;
2. 47°F dry bulb/43°F wet bulb outdoor air temperature and 70°F dry bulb/60°F wet bulb entering indoor coil air, connected AHU;
3. 5°F dry bulb/3°F wet bulb outdoor air temperature and 70°F dry bulb/60°F wet bulb entering indoor coil air, connected AHU.



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