



Atom X

Heating up to -30°C

Mini VRF Inverter Technology
VRF Heat Pump Systems
Up to 20 SEER2 and 10.1 HSPF2 IV



Exclusive distributor in Quebec

DESCAIR

OUTDOOR UNIT + MULTIPLE VRF INDOOR UNITS (IDU)

Various VRF indoor units can be controlled separately or centrally to meet different requirements.



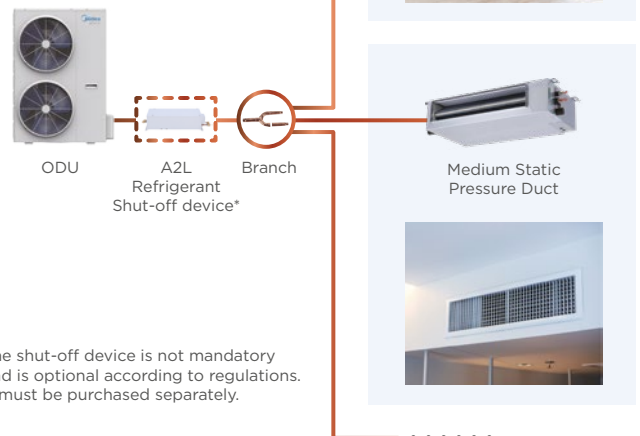
01 Flexible Controller Wiring

- Arbitrary topology communication
- Superb anti-interference ability
- Communication distance up to 6,562 ft (2,000 m)

03 System Configurations

02 Multiple VRF Indoor Units

The AtomX VRF offers 5 types of indoor units to meet different scenarios.



R454B Refrigerant

R454B is a lower GWP (Global Warming Potential), better performance refrigerant that is kinder to the environment.



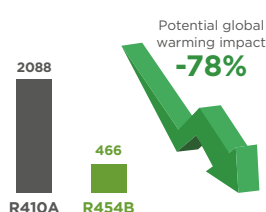
ECO FRIENDLY

- Lower GWP: 466
- Less greenhouse gases emission



BETTER PERFORMANCE

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



Wide Operating Range

AtomX Series can operate at temperatures as low as -30°C (-22°F) for heating, up to 51°C (125°F) for cooling and at 100% capacity at -20°C (-4°F) in heating mode.



Refrigerant Safety Protection

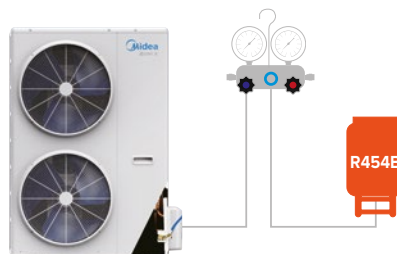
Detects refrigerant leakage of the indoor unit. The shut-off device* will cut off the refrigeration pipeline to prevent the R-454B refrigerant of the outdoor unit from leaking into the room.



* The shut-off device must be purchased separately.

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 when the filling process is finished.

Automatic Method

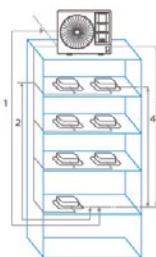


Manual Refrigerant Charging

- 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 when the filling process is finished.

Traditional Method

Long Piping Capability



The AtomX can support a total piping length of up to 984 ft, an installation height difference of up to 164 ft between indoor and outdoor units, and up to 49 ft between indoor units, making the AtomX perfectly suitable for small and medium-sized buildings.

Item		Capability (ft)	
		VRF	
		1.5-2 Tons	2.5-5 Tons
Total piping length		492	984
1. Longest piping length	Actual	296	296
	Equivalent	328	328
2. Longest piping length after first branch		131	131
3. Largest level difference between IDUs and ODU	ODU up	164	164
	ODU down	131	131
4. Largest level difference between IDUs		49	49

INDOOR UNITS SPECIFICATIONS

Wall-Mounted

- 5-step swing louver
- 7-speed fan control
- Built-in EXV
- Multi-outlet pipe method for both refrigerant and drain piping for more installation flexibility: left/right/rear



Model		MIH05 GMN10	MIH07 GMN10	MIH09 GMN10	MIH12 GMN10	MIH15 GMN10	MIH18 GMN10	MIH24 GMN10	MIH30 GMN10*
Cooling capacity	BTU/hr.	5,000	7,500	9,500	12,000	15,000	18,000	24,000	30,000
Heating capacity	BTU/hr.	6,000	8,500	10,900	13,000	17,000	21,000	27,000	34,000
Power supply	V/ph/Hz	208-230V/1/60							
Min. circuit ampacity	A	0.55	0.55	0.68	0.7	0.74	0.83	1.05	1.44
Max. fuse	A	15							
Net dimensions (W x D x H)	in	29-1/2 x 10-7/16 x 11-5/8				37-3/8 x 10-7/16 x 11-5/8		47-1/4 x 10-7/16 x 11-5/8	
Net weight	lbs	23				27.5		34	

*Special order only

Air Handler Unit

- Electronic Expansion Valve (EEV) for precise temperature control
- Flexible multi-position installation: horizontal or vertical
- Compatible with both communicating (RS485) and standard 24 V thermostat
- Variable speed ECM blower



Model		MIH12 VMN10*	MIH18 VMN10	MIH24 VMN10	MIH30 VMN10	MIH36 VMN10	MIH48 VMN10	MIH54 VMN10*	MIH60 VMN10
Cooling capacity	BTU/hr.	12,000	18,000	23,000	30,000	36,000	48,000	54,000	60,000
Heating capacity	BTU/hr.	13,500	21,000	24,000	34,000	40,000	54,000	60,000	66,000
Air flow min.-max.	CFM	321-402	422-602	562-804	703-1,005	844-1,205	1,125-1,607	1,266-1,808	
Power supply	V/ph/Hz	208 - 230V / 1/ 60							
Min. circuit ampacity	A	3.38		5.08			5.65		
Max. fuse	A	15							
Net dimensions (W x D x H)	in	18-1/8 x 20-1/2 x 41-5/16		19-11/16 x 21-5/8 x 46-7/16			22-1/16 x 24 x 54-1/2		
Net weight	lbs	108		130			150		157

*Special order only

Four-Way Cassette

- Four-way airflow allows wide-angle and equal distribution of cooling and heating
- Brand-new, elegant panel with round air discharge and four independently controlled louvers (*optional*)
- 5-step swing louver
- 7-speed fan control
- Quiet operation
- Fresh air intake
- Built-in EXV
- High-lift drain pump (29 in. wg)



Model		MIH09 Q4MN10*	MIH12 Q4MN10*	MIH15 Q4MN10*	MIH18 Q4MN10*	MIH24 Q4MN10	MIH30 Q4MN10	MIH36 Q4MN10	MIH48 Q4MN10
Cooling capacity	BTU/hr.	9,000	12,000	15,000	18,000	24,000	30,000	36,000	48,000
Heating capacity	BTU/hr.	12,000	13,500	17,000	21,000	27,000	34,000	40,000	54,000
Power supply	V/ph/Hz	208-230V / 1/60							
Min. circuit ampacity	A	0.92		1.49			2.2		
Max. fuse	A	15							
Net dimensions (W x D x H)	Unit	in	33-1/16 x 33-1/16 x 8		33-1/16 x 33-1/16 x 9-11/16		33-1/16 x 33-1/16 x 11-5/16		
	Panel								
		37-3/8 x 37-3/8 x 3							
Net weight	Unit	lbs	45.2	50.70	57.3			61.7	
	Panel		12.8						

*Special order only

Compact Four-Way Cassette

- Four-way airflow allows wide-angle and equal distribution of cooling and heating
- Brand-new, elegant panel with round air discharge and four independently controlled louvers (*optional*)
- 5-step swing louver
- 7-speed fan control
- Quiet operation
- Fresh air intake
- Built-in EXV
- High-lift drain pump (29 in. wg)



Model		MIH05 Q4CMN10*	MIH07 Q4CMN10*	MIH09 Q4CMN10*	MIH12 Q4CMN10	MIH15 Q4CMN10	MIH18 Q4CMN10
Cooling capacity	BTU/hr.	5,000	7,000	9,000	12,000	15,000	18,000
Heating capacity	BTU/hr.	6,000	8,000	10,000	13,000	17,000	21,000
Power supply	V/ph/Hz	208-230V/1/60					
Min. circuit ampacity	A	0.54				0.61	0.65
Max. fuse	A	15					
Net dimensions (W x D x H)	Unit	in	25-1/8 x 22-5/8 x 9-1/4				
	Panel		24-7/16 x 24-7/16 x 2-9/16				
Net weight	Unit	lbs	30.9				33.1
	Panel		5.0				5.0

*Special order only

INDOOR UNITS SPECIFICATIONS

Medium Static Pressure Duct

- 7-speed fan control
- Fresh air intake
- High-lift drain pump (47 in. wg)
- Built-in EXV
- Rear or bottom return



Model		MIH07 T2MN10*	MIH09 T2MN10*	MIH12 T2MN10	MIH15 T2MN10	MIH18 T2MN10	MIH24 T2MN10	MIH30 T2MN10	MIH36 T2MN10	MIH48 T2MN10
Cooling capacity	BTU/hr.	7,000	9,000	12,000	15,000	19,000	24,000	30,000	38,000	48,000
Heating capacity	BTU/hr.	8,000	10,000	13,500	17,000	21,000	27,000	34,000	42,000	54,000
Air flow min.-max.	CFM	201-291	242-372	338-502	367-525	432-624	467-667	733-1,063	804-1,195	894-1,280
Ext. static pressure	in. wg	0.64								
Power supply	V/ph/Hz	208-230V/1/60								
Min. circuit ampacity	A	2.2	2.24	2.38	2.72			3.27		
Max. fuse	A	15								
Net dimensions (W x D x H)	in	27 x 31-7/8 x 9-5/8		34-13/16 x 31-7/8 x 9-5/8	44-11/16 x 31-7/8 x 9-5/8			58-7/16 x 31-7/8 x 9-5/8		
Net weight	lbs	54	58.2	75	94.8			116.8		

*Special order only

Accessories

Controllers



Wired controller
WDC3-120T2
(optional)



Remote controller
RM23A
(optional)

- Supports 14 languages
- Wired controller keypad lock function
- Both the wired controller and the app support one to many control of up to 16 IDUs
- Wired controller set temperature range limit
- Remote controller receiver and Follow Me function
- IDU and ODU parameter setting and checking function
- IDU address setting & IDU/ODU error code checking function
- 2 controllers can be connected with one indoor unit as well as one group of indoor units
- Weekly schedule and Extension power-off delay
- SmartHome app can be used to control remotely
- ON/OFF
- Mode setting
- Temp setting
- Vertical louver angle setting
- Vertical swings
- Horizontal swings
- Independent louver control
- Fan speed setting
- Turbo mode
- Follow me
- Timer
- Silent function
- Sleep function
- IDU display on/off
- Controller Lock
- Celsius/Fahrenheit switching
- Temperature adjustment stride setting
- Fan speed number setting
- Auto mode availability setting
- Screen on/off logic setting
- IDU parameter spot check















Electric Heat Air Handler Unit MIHxxV

VRF AHU Model	Heaters Match List				
	5	8	10	15	20
MIH12VMN10					
MIH18VMN10					
MIH24VMN10					
MIH30VMN10					
MIH36VMN10					
MIH48VMN10					
MIH54VMN10					
MIH60VMN10					

OUTDOOR UNITS SPECIFICATIONS

- High-efficiency twin rotary compressor
- Two-pipe heat pump
- Wide operation range: cooling from -15°C to 51°C (5°F to 125°F); heating from -30°C to 30°C (-22°F to 86°F)
- Refrigerant auto-charge
- Arbitrary connection of communication wire



Model			MDV-V18WMN10T	MDV-V24WMN10T	MDV-V30WMN10T	MDV-V36WMN10T	MDV-V48WMN10T	MDV-V60WMN10T	
Nominal size		Tons	1.5	2	2.5	3	4	5	
AHRI - Ducted indoor units			216021057	216021058	216021059	216021060	216021061	216021062	
AHRI - Non-ducted indoor units			216021071	216021073	216021075	216021077	216021079	216021081	
AHRI - Mixed ducted and non-ducted indoor units			216021072	216021074	216021076	216021078	216021080	216021082	
									
 COLD CLIMATE V6.1									
Cooling ¹	Capacity	BTU/hr.	18,200	24,400	30,000	36,000	48,000	60,000	
	EER2	BTU/W	12	11.7	14	13.3	11.7	9.5	
	SEER2	BTU/W	17.5	18.5	20	20	20	19.5	
Heating ²	Capacity	BTU/hr.	20,000	26,000	30,000	40,000	50,000	60,000	
	COP2	W/W	4.2	4.1	4.2	4.1	3.9	3.9	
	HSPF IV	BTU/W	10	10	10.1	10.1	10.1	10.1	
	HSPF V	BTU/W	7.4	7.5	7.6	7.5	7	6.06	
Low ambient heating ³	Capacity	BTU/hr.	18,000	20,000	30,000	34,000	40,000	42,000	
	COP	W/W	1.8	1.8	2.1	2	2	1.9	
	Capacity Ratio	%	100%	83%	100%	94%	83%	70%	
Operating temperature range	Cooling (DB) ⁴	°C / °F	-15 ~ 51 / 5 ~ 125						
	Heating (DB) ⁴	°C / °F	-30 ~ 30 / -22 ~ 86						
Refrigerant	Type		R-454B						
	Charge Amount	lbs	3.64		6.83		9.04		
Connections	Liquid	in	3/8						
	Gas (low pressure)	in	5/8				3/4		
Connectable indoor units	Total capacity	%	65-130			50-130			
	Maximum IDU quantity		3	4	5		7	9	
Electrical data	Min. circuit ampacity	A	15	16	25		28	35	
	Max. overcurrent	A	25			30		40	
Unit	Net dimensions (W x D x H)	in	39-1/8 × 16-3/4 × 28			40-11/16 × 20-9/16 × 34		38-1/2 × 15-3/4 × 52-1/4	
	Net weight	lbs	121			207		227	
Sound data		dB(A)	55	56	59		60		

Notes:

1. 35°C (95°F) dry bulb/24°C (75°F) wet bulb outdoor air temperature and 26°C (80°F) dry bulb/19°C (67°F) wet bulb entering indoor coil air, connected VRF four-way cassette indoor.

2. 8°C (47°F) dry bulb/6°C (43°F) wet bulb outdoor air temperature and 21°C (70°F) dry bulb/15°C (60°F) wet bulb entering indoor coil air, connected VRF four-way cassette indoor.

3. -16°C (5°F) dry bulb/-16°C (3°F) wet bulb outdoor air temperature and 21°C (70°F) dry bulb/15°C (60°F) wet bulb entering indoor coil air, connected VRF four-way cassette indoor.

4. Dry Bulb



Warranty

RESIDENTIAL APPLICATION: 10 years for parts, compressor and labor. 10 years labor limited warranty is offered by Descair in Quebec only.
COMMERCIAL APPLICATION: 10 year parts and compressor

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Midea reserves the right to change the specifications of the product, and to withdraw or replace products without prior notification or public announcement. Midea is constantly developing and improving its products.

Exclusive distributor in Quebec



YOUR RETAILER