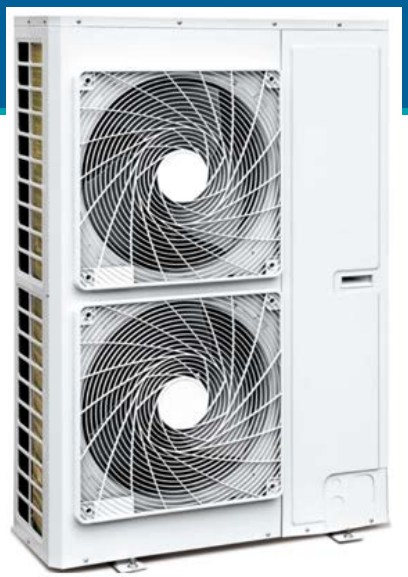
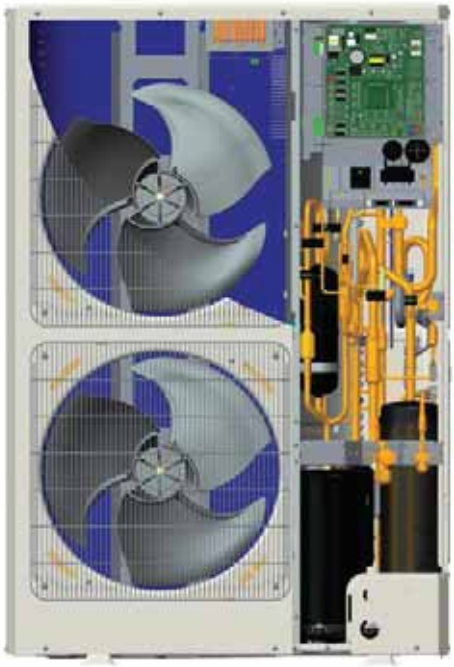
V5 Mini Heat Pumps



Residential/Light Commercial Multi-Zone Systems

Mammoth VRF Mini multi-zone systems offer condensers in 3, 4 and 5 tons. These are stand-alone condensers that can be combined with a minimum of 1 and up to 9 indoor units. The minimum and maximum number of indoor units is determined by the system's connectable capacity. The connectable capacity range for heat pump systems is 50% to 135% of the capacity rating of the outdoor unit. The collective capacity rating of indoor units must fall within the connectable capacity range for the system to function correctly.



V5 Mini Internal Components

Efficiency - Reduced Energy Usage Saves Money

All DC Inverter Compressor

This Mini VRF System uses inverter compressor technology. By changing the displacement of compressor, stepless capacity regulation within range of 10%~100% can be realized. Various models are provided with capacity range from 3 to 5 tons (nominal), which can be widely used in residential, commercial and working area and especially applicable to places with big load change.

V5 Mini Heat Pumps

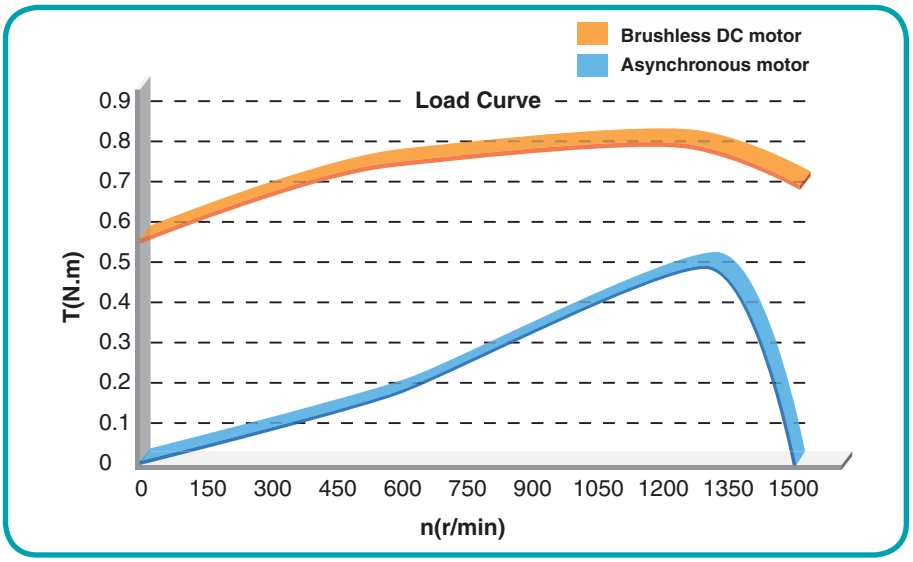
Wired Controller Allows for Higher Efficiency and Energy Savings

By setting temperature lower limit in cooling or dry mode, and setting temperature upper limit in one of three available heat modes, the system is able to operate in a narrower temperature range to achieve greater energy savings.

Sensorless DC Inverter Fan Motor

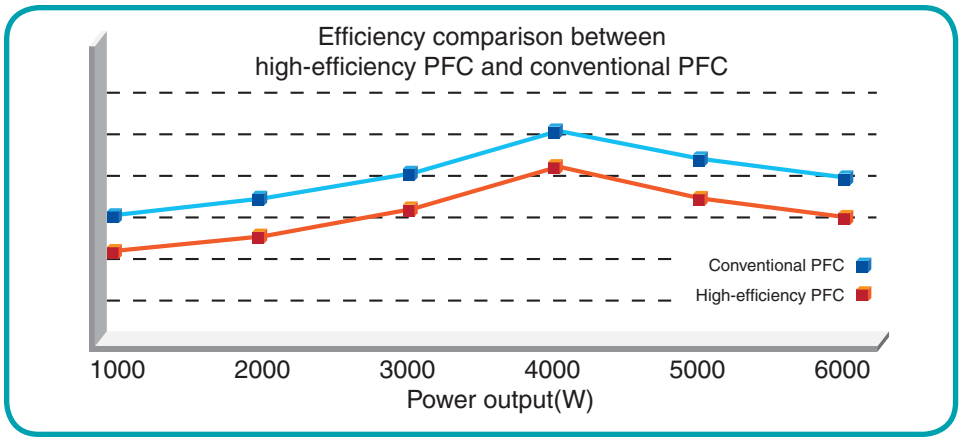
The indoor unit has a high-efficiency brushless DC motor, which is 30% more efficient compared to conventional motors.

Emulation software in the logic of the indoor unit maximizes the efficiency of the evaporator.



High-efficiency Digital PFC Control*

High-efficiency Power Factor Correction (PFC) control technology improves efficiency by about 1% compared with conventional PFC. For the air conditioner with rated power of 18,000 BTU, 50W of electricity can be saved every hour and 1,200W of electricity can be saved every day.

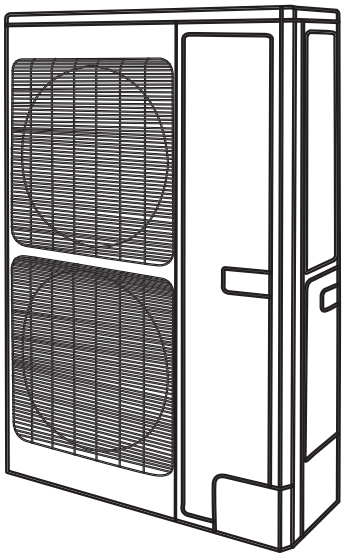
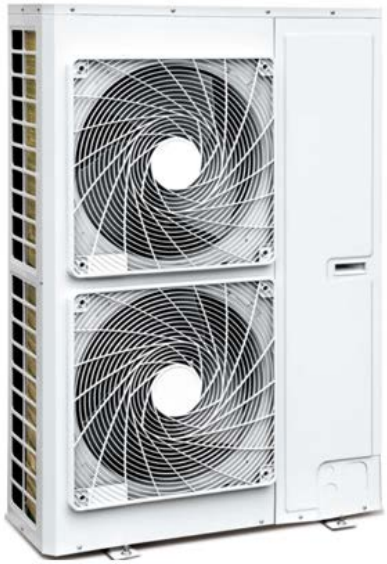


* This feature is applicable for V5 Mini outdoor units only.

V5 Mini Heat Pumps

Wider Operation Range in Cooling Mode

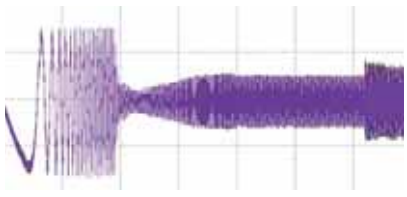
The DC motor has more accurate high pressure control, which effectively solves the high pressure control problem in low ambient temperature cooling.

	
Competitive Models	Mammoth Mini
Cooling: 50~120°F (10~48°C) Heating:-4~80°F (-20~27°C)	Cooling: 23~120°F (-5~48°C) Heating:-4~80°F (-20~27°C)

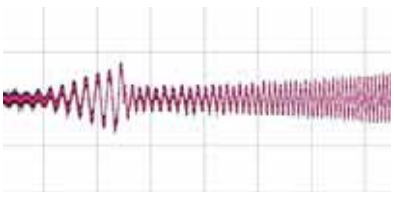
Compressor Closed-loop Startup Technology Provides More Reliable Startup

The closed-loop startup control technology means less current is required, and startup is more reliable.

(Applies to V5 Mini outdoor units only)

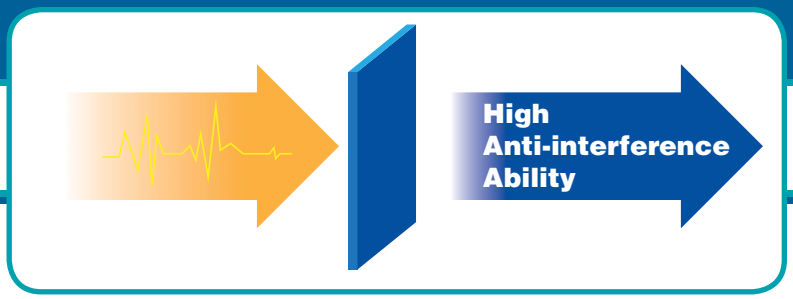


Conventional Start-Up Mode



Closed-Loop Start-Up Mode

V5 Mini Heat Pumps

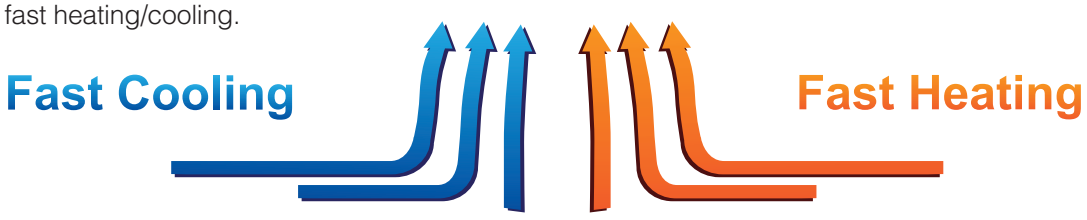


High Anti-Interference Ability

The latest CAN bus technology uses non-polar communication with high anti-interference prevention. Common communication wire can meet the communication demand with no need of specialized shielding.

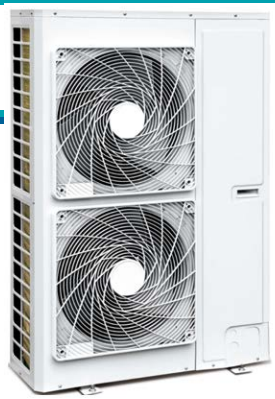
Intelligent Temperature Control

Intelligent temperature control technology is used for super fast heating/cooling.



V5 Mini Heat Pumps

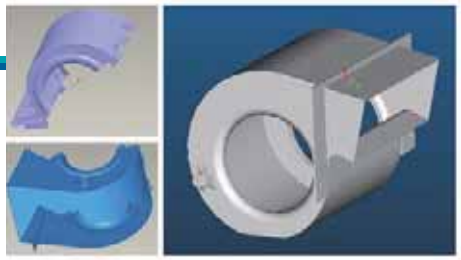
Quiet Outdoor Unit



The advanced sub-cooling control reduces the liquid flow noise of indoor unit in cooling operation.

The sound of the outdoor unit can be as low as 45dB thanks to sound optimized design of the fan and compressor system. There are several quiet mode settings.

Quiet Indoor Unit



The patented centrifugal fan and fan casing reduce sound level by as much as 22dB(A).

The entire fan assembly was designed so that it is placed at the optimum angle. Also the ratio between the internal and external diameters allow for the maximum amount of airflow at minimum sound levels.

The advanced supercooling control and oil-return technology (in heating mode) combine to provide a quieter flow of liquid to the indoor unit.

When comparing decibel levels of competitive equipment, remember that an increase of 10dB can be perceived as twice as loud. This is especially important when comparing noise levels of refrigerant distribution boxes.

For comparison purposes, rustling leaves have a decibel level of 20.
A whisper in a quiet library from 6 feet away has a decibel level of 30.

Noise Levels - BC verses MEU

A difference of sound as little as 10dB can be perceived as being twice as loud. BC Controller Solenoid noise during mode change up to 56dB. Single Port BS Box during mode change as little as 35dB.

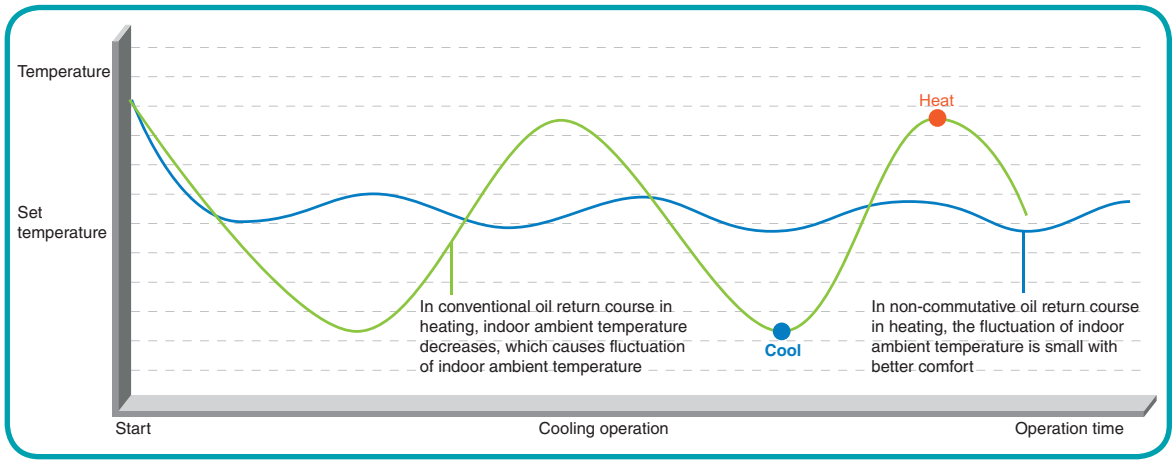
BC Controllers

BS Boxes

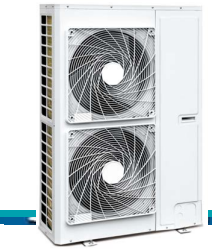
V5 Mini Heat Pumps

Non-Commutative Oil Return Technology in Heating

The unit can achieve non-commutative oil return in heating when outdoor ambient temperature is within 32~68°F (0~20°C). Thanks to this technology, indoor ambient temperature is more stable and comfort is improved in heating mode.



V5 Mini Multi-Zone - 3, 4 and 5 Ton - 208-230V, 1 Phase - 60 Hz



Model			V5BV-36WMAK	V5BV-48WMAK	V5BV-60WMAK
Capacity Range		Tons	3	4	5
Capacity	Cooling	MBtu/h	37.5	48	60
	Heating	MBtu/h	42	54	66
SEER			16		
HSPF			9		8.2
Power Supply		Ph-V-Hz	1-208-230-60		
MCA		A	32	37	37.4
MOP		A	50	60	70
Maximum Number of Indoor Units		Unit	6	8	10
Refrigerant Charge Volume		oz	176.4		229.3
		kg	5.0		
Sound Pressure Level		dB(A)	55	56	58
Connecting Pipe	**Liquid**	**inch**	**3/8**		
		mm	**9.52**		
	Gas	**inch**	**5/8**		**3/4**
		mm	**15.87**		**19.05**
Outline Dimension	WxDxH	inch	35-3/8 x 13-3/8 x 53		
		mm	900 x 340 x 1345		
Package Dimension	WxDxH	inch	39-1/4 x 18 x 59-5/8		
		mm	998 x 458 x 1515		
Net Weight/Gross Weight		lb	243/265		274/300
		kg	110/120		124/136

Note: No Branching Boxes needed.