

V5 Heat Recovery System

Commercial Multi-Zone Systems

Mammoth VRF heat recovery condensers are available in 6, 8 and 10 Tons. Indoor unit combinations range from 12 indoor units all the way up to 20 indoor units. The minimum and maximum number of indoor units is determined by the system's connectable capacity. The connectable capacity range for heat recovery 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. Over or under and the system won't work at all.

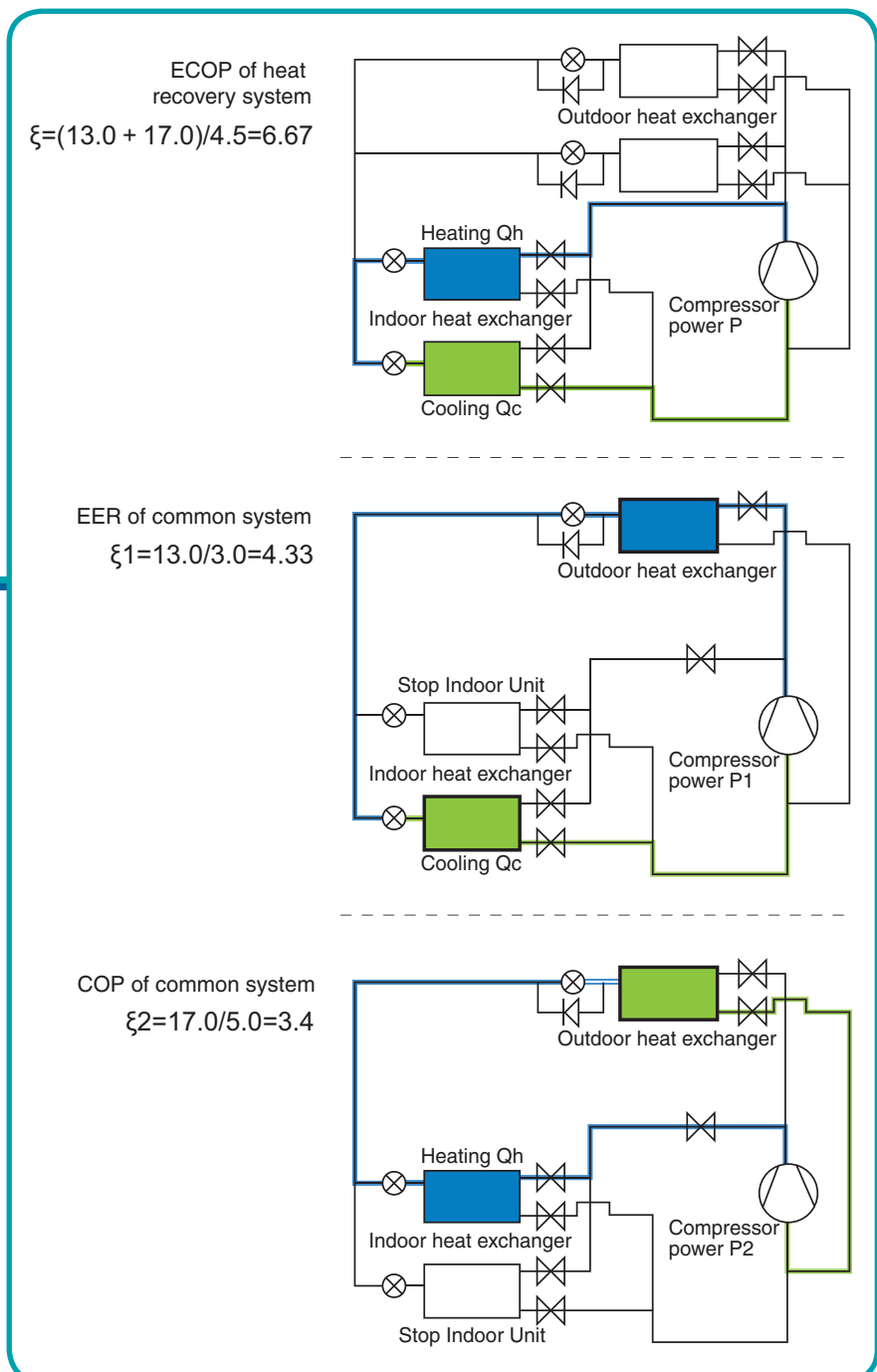


High-Efficiency

The Heat Recovery System has all the benefits of DC inverter technology,

- DC fan linkage control
- Precise control of capacity output
- Balancing control of refrigerant
- Oil balancing technology with high pressure chamber
- High-efficiency output control
- Low-temperature operation control
- Super heating
- High adaptability for unique applications
- Environmental refrigerant

Its energy efficiency is improved by 78% compared with conventional multiple VRF units.



V5 Heat Recovery Outdoor Units

Commercial Multi-Zone - 6, 8 and 10 Ton - 208/230V, 60 Hz, 3 Phase

Model			V5BV-R72WMBC	V5BV-R96WMBC	V5BV-R120WMBC
Capacity Range		Tons	6	8	10
Capacity	Cooling	MBtu/h	67.0	90.0	111.0
	Heating	MBtu/h	75.0	100.0	126.0
EER			12.0	11.2	11.5
IEER			25.0	23.5	24.0
COP			3.53	3.50	3.50
SCHE			28.0	27.5	27.0
Airflow Volume		CFM	8240		
Power Supply		Ph-V-Hz	3-208/230-60		
MCA		A	35	39	74
MOP		A	50	60	100
Maximum Connected IDU Quantity		unit	12	16	20
Refrigerant Charge Volume		oz	338.6	395.1	416.2
Sound Pressure Level		dB(A)	61	61	63
Connecting Pipe	Liquid	inch	3/8	3/8	1/2
	Gas (Low Pressure)	inch	3/4	7/8	1 1/8
	Gas (High Pressure)	inch	5/8	3/4	
Dimension (WxDxH)	Outline	inch	52-3/4 x 30-1/8 x 63-1/5		
	Package	inch	56 x 33 x 69-7/8		
Net Weight/Gross Weight		lbs	666/699	683/716	794/827

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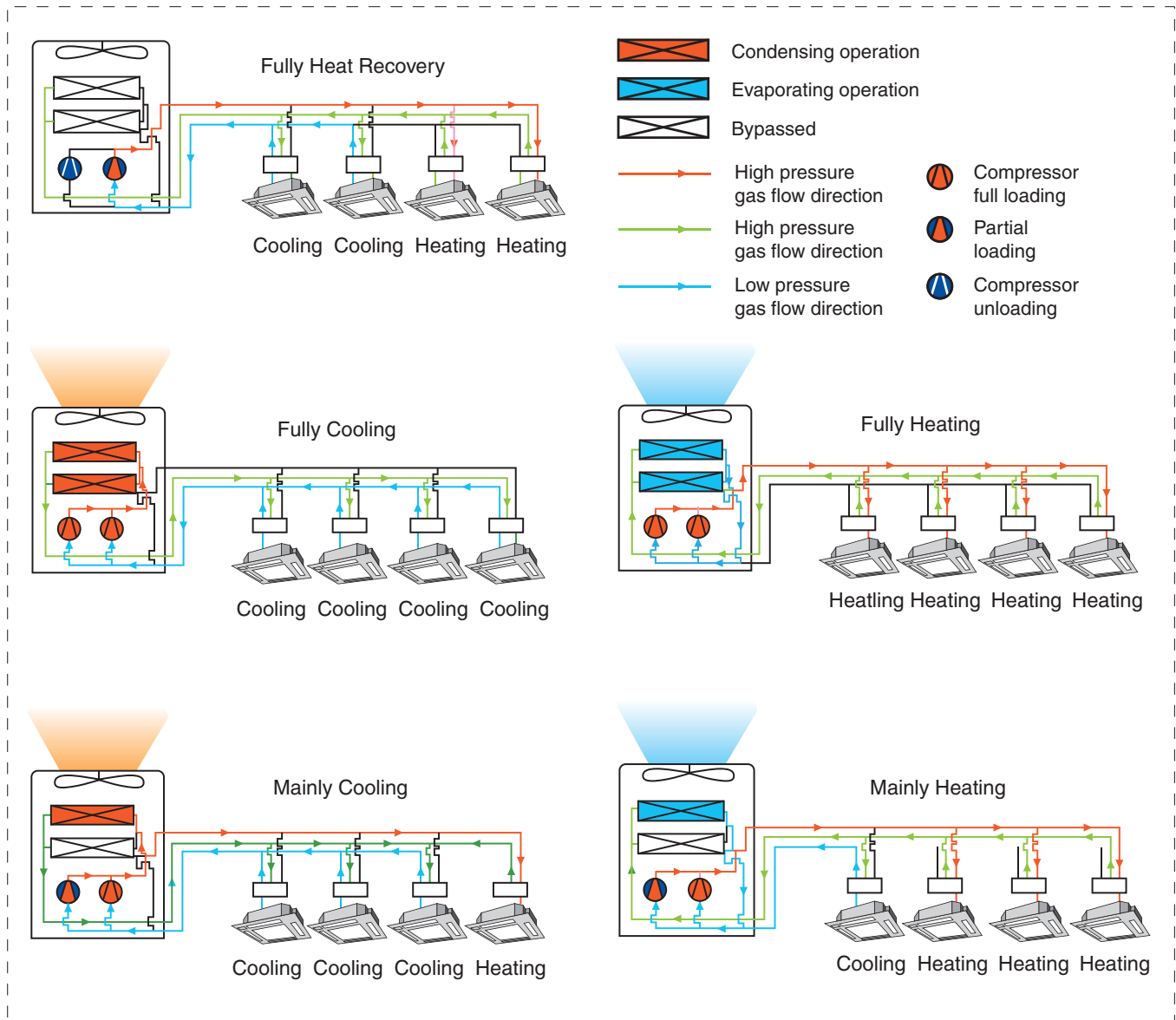
When the cooling capacity and heating capacity of common system are equivalent to the capacity of a heat recovery system, its energy efficiency ratio is:

$$2 = (13.0 + 17.0) / (3.0 + 5.0) = 30.0 / 8.0 = 3.75$$

The energy efficiency ratio of a heat recovery system is higher than a common system or common systems:

$$(6.67 - 3.75) \times 100\% / 3.75 = 78\%$$

Note: Working conditions of above-mentioned test: outdoor temperature 45°F/43°F (7°C/6°C), indoor temperature in cooling 81°F/66°F (27°C/19°C), indoor temperature in heating 68°F/59°F (20°C/15°C).

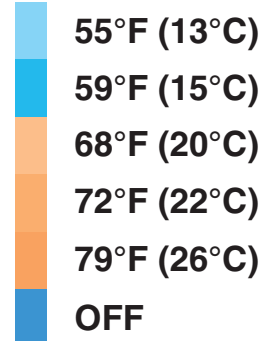


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Individual Control for More Energy Savings

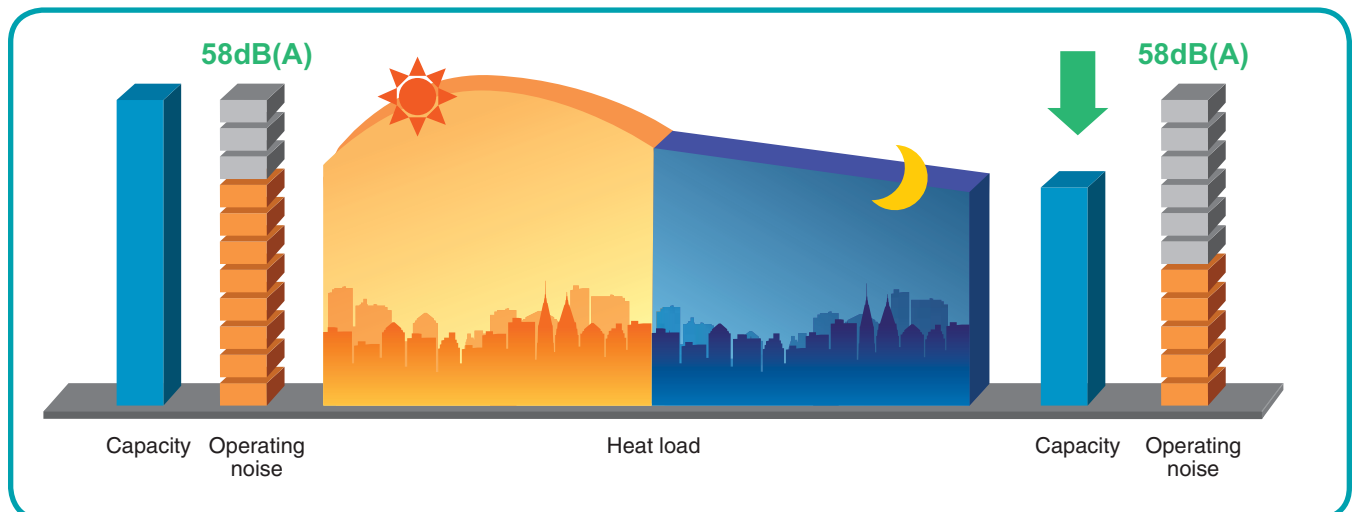
The set temperature of each room may vary by the individual thermostat control of each indoor unit.

The cooling and heating operation can be performed simultaneously.



Intelligent Quiet Function at Night

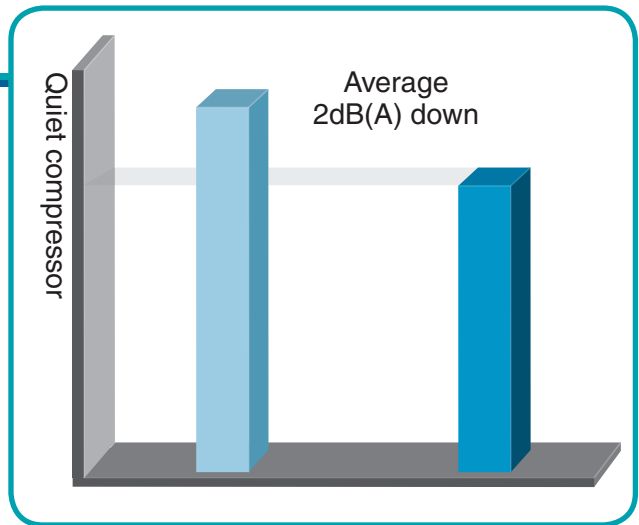
The Night Quiet function adjusts the overall capacity of the outdoor unit, reducing the overall noise by 8dB(A), reducing noise production to as low as 50dB(A) at night. For example, when most occupants are returning home from work in the evening, they adjust their thermostats, sometimes by many degrees. This will cause other VRF systems to ramp up to 100% immediately, producing a large amount of noise. This function prevents a sudden increase, therefore reducing noise.



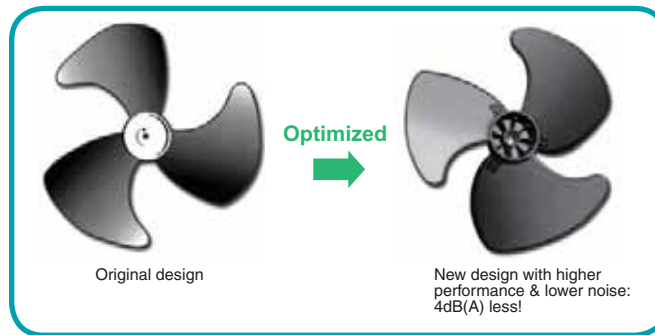
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Low Noise Design

High-side shell compressor has lower exhaust pressure fluctuation so sound is significantly reduced.



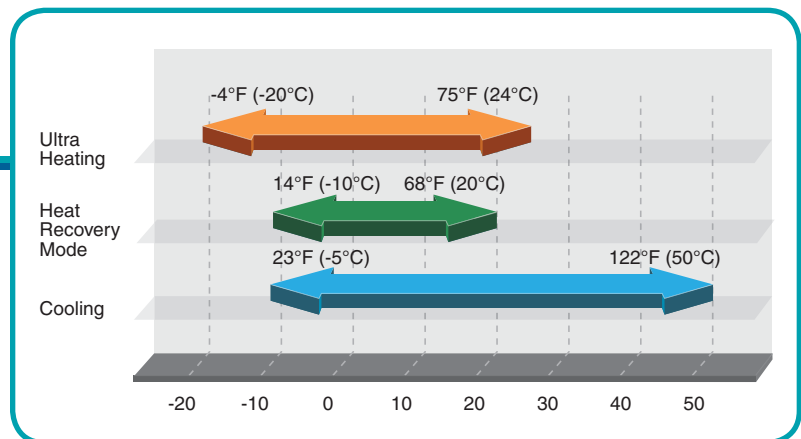
The optimized design of the condensing fan blade reduces the airflow turbulence through the blades. Lower turbulence means quieter operation.



Wide Operating Range

The unit can operate in a wide range of ambient temperatures.

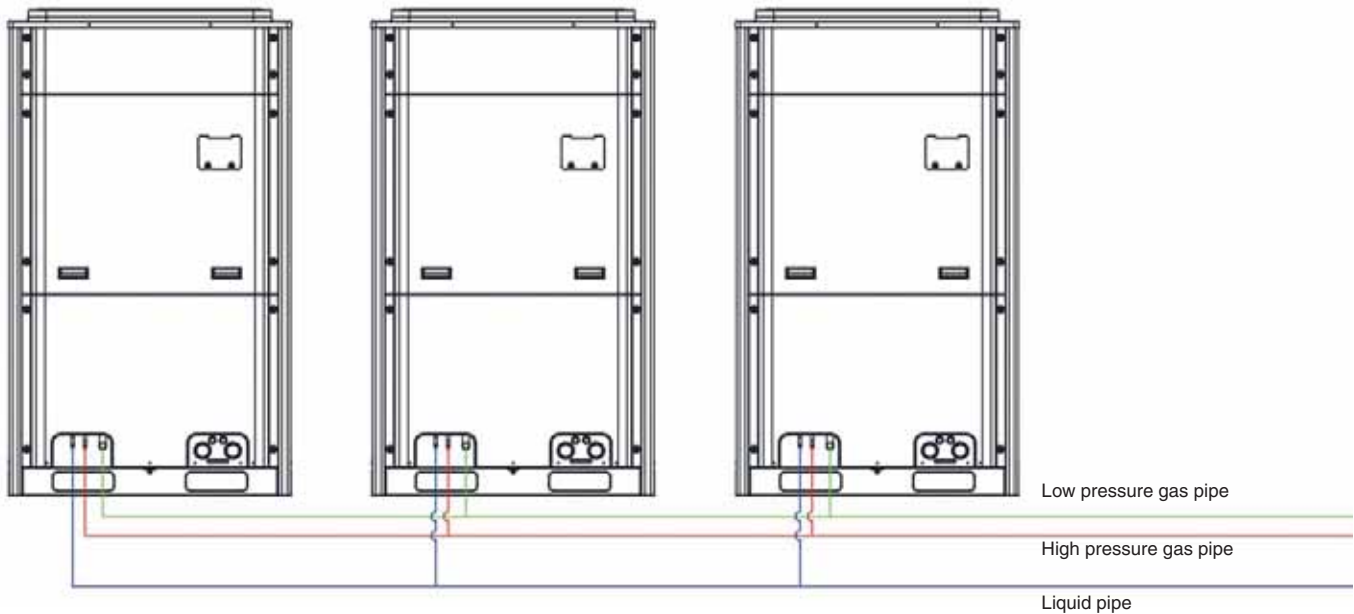
Note: If the total capacity of indoor units is 50% lower than outdoor unit, cooling range drops to 5°F (-15°C). If the total capacity of indoor units is 50% higher than outdoor unit, cooling range raises to 23°F (-5°C).



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No External Oil-Balanced Design

The heat recovery units don't require an external oil-balance pipe, reducing system pipe connections for easier installation. The system will allocate lubricating oil to each module according to its demand, for a more intelligent, more efficient and more equal distribution.



5-Way Piping Connection

Piping and wiring connections can be made to the front, back, left, or right side of the unit or to the bottom.

The 5-way piping connection makes installation easier resulting in lower installation cost.

