

SINGLE-PHASE VRF 38VMB-H OUTDOOR UNIT



Single-Phase VRF Heat Pump

FEATURES

- Up to 19.2 SEER2
- Up to 9.2 HSPF2
- 208/230-1-60Hz power supply
- Connect up to nine multiple- style indoor units on a 5-ton system
- High-performance outdoor unit with inverter-driven scroll compressor
- Cooling operating range 5° ~ 118° F
- Heating operating range -13° ~ 64° F
- Connected capacity up to 130%
- Quiet outdoor operation, as low as 58.7 dB(A)

COMPATIBLE WITH:

40VMA, 40VMF, 40VMH, 40VML, 40VMM, 40VMR, 40VMU, 40VMV, 40VMW, 40VMC, 40VMI & 40VM9 (controller)

VRF Heat Pump System

Sizes: 36K / 48K / 60K

36,000 to 60,000 Btu/h

3 to 5 tons

KEY FEATURES

The Carrier 38VMB-H VRF heat pump system is a combination of an outdoor unit with multiple-style indoor units connected by refrigerant piping and wiring. The outdoor units have stacked dual-condenser fan with side-blow arrangement.

SINGLE-PHASE VRF 38VMB-H OUTDOOR UNIT

SPECIFICATIONS:

38VMB-H Outdoor Unit						
System						
Outdoor Unit Model Name				38VMB036HDS3-1	38VMB048HDS3-1	38VMB060HDS3-1
Nominal Tons			Ton	3	4	5
Performance						
Cooling Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	36,000	48,000	60,000
		Rated	kBtu/h	36,000	48,000	60,000
Heating Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	40,000	52,500	66,000
		Rated	kBtu/h	40,000	52,500	66,000
Performance Non-Ducted						
With Non-Ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz		
	Cooling	Power Consumption	kW	3.1	4.6	6.1
		SEER2 (Seasonal Energy Efficiency Ratio)		Btu/W*hr	19.2	19.0
	Heating	Power Consumption	kW	3.1	4.3	5.8
		HSPF2 (Heating Seasonal Performance Factor)		Btu/W*hr	9.2	8.9
	Electrical Characteristics (Nominal) (*1)					
Performance Ducted						
With Ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz		
	Cooling	Power Consumption	kW	2.9	4.7	6.1
		SEER2 (Seasonal Energy Efficiency Ratio)		Btu/W*hr	17.3	17.0
	Heating	Power Consumption	kW	3.0	4.2	5.7
		HSPF2 (Heating Seasonal Performance Factor)		Btu/W*hr	9.1	8.5
	Electrical Characteristics (Nominal) (*1)					
Dimensions						
Height			in	52-1/4		
Width			in	35-1/2		
Depth			in	15-3/4		
Total Weight		Unit	lb	220		
Compressor						
Type/Quantity			Inverter-Driven Hermetic Rotary/1			
Motor Output			kW	13		
Fan Unit						
Motor Output			W	90+90		
Air Volume			cfm	4,100		
Refrigerant (*3) (charged refrigerant amount)			lb	8.6		
Electrical Specifications	Unit	MCA (*4)	A	36	38	40
		Recommended Fuse Size	A	40	40	45
Piping						
Refrigerant Piping	Connecting Port Diameter	Gas Side (main pipe) (brazing)	in	5/8		3/4
		Liquid Side (main pipe) (brazing)	in	3/8		
Operation Temperature Range						
Cooling			° F DB	5~118		
Heating			° F WB	-13~64		
Indoor						
Maximum Number of Connected Indoor Units				5	7	9
Maximum Capacity of Combined Indoor Units				50 to 130%		
Sound Pressure Level Cooling/Heating (*5)			dB(A)	58.7	60.1	60.7

Specifications subject to change.

(*1) Rated conditions

Cooling: Indoor air temperature 80 ° F dry bulb / 67 ° F wet bulb, outdoor air temperature 95 ° F dry bulb.

Heating: Indoor air temperature 70 ° F dry bulb, outdoor air temperature 47 ° F dry bulb / 43 ° F wet bulb.

(*2) The source voltage must not fluctuate more than ±10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) These values, measured in anechoic chamber, at a point 1m in front of the unit at a height of 1.4 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

TOSHIBA CARRIER**MMYF-1P HEAT RECOVERY SYSTEM**

Toshiba Carrier

VRF Heat Recovery

FEATURES

- Available in 6-ton single module which can be twinned up to 12-ton capacity
- Ability to connect up to 25 indoor units
- High-performance outdoor units with all inverter-driven twin rotary compressor
- DC inverter condenser fan motor
- 208/230-1-60Hz voltage
- Cooling ambient operating temperature is 14° ~ 122° F
- Heating ambient operating temperature is -13° ~ 60° F
- Connected capacity up to 150%

COMPATIBLE WITH:

The MMYF-SP heat recovery unit is matched with multiple VRF fan coils.

TOSHIBA
Carrier

3-Pipe VRF Heat Recovery System

72,000 or 144,000 Btu/h

6 or 12 tons

KEY FEATURES

The Toshiba Carrier VRF system is a combination of an outdoor unit with multiple-style indoor units connected by refrigerant piping and wiring. The VRF heat recovery outdoor unit is a single module with twinning capability up to 12 tons to achieve greater capacity.

TOSHIBA CARRIER

MMYF-1P HEAT RECOVERY SYSTEM

SPECIFICATIONS:

MMYF-1P Outdoor Unit						
System						
Outdoor Unit Set Model Name		MMY-		MAP0726FT2P-UL	AP1446FT2P-UL	
Outdoor Unit Model Name		MMY-MAP			0726FT2P-UL	
					0726FT2P-UL	
Nominal Tons			Ton	6	12	
Performance						
Cooling Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	72	144	
		Rated	kBtu/h	69	138	
Heating Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	81	162	
		Rated	kBtu/h	77	154	
Performance Non-Ducted						
With Non-ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz		
	Cooling	Power Consumption (*6)		kW	4.43	9.65
		IEER (Integrated Energy Efficiency Ratio)		Btu/W*hr	27.4	25.7
	Heating	Power Consumption (*6)		kW	5.98	11.69
		SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W*hr	30.6	31.3
	Electrical Characteristics (Nominal) (*1)					
Performance Ducted						
With Ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz		
	Cooling	Power Consumption (*6)		kW	4.88	9.81
		IEER (Integrated Energy Efficiency Ratio)		Btu/W*hr	20.6	20.0
	Heating	Power Consumption (*6)		kW	6.10	11.56
		SCHE (Simultaneous Cooling & Heating Efficiency)		Btu/W*hr	27.8	26.6
	Electrical Characteristics (Nominal) (*1)					
Dimensions						
Height			in	72.9	72.9	
Width			in	39.0	39.0 x 2	
Depth			in	30.7	30.7	
Total Weight		Unit	lb	600	600 + 600	
Compressor						
Type				Hermetic Twin Rotary Compressor		
Fan Unit						
Air Volume			cfm	5,900	5,900 x 2	
Maximum External Static Pressure			in W.C.	0.24	0.24	
Refrigerant (*3) (charged refrigerant amount)			lb	24.3	24.3 x 2	
Electrical Specifications	Unit	MCA (*4)		A	47	47 + 47
		Recommended Fuse Size		A	50	50 + 50
Piping						
Refrigerant Piping	Connecting Port Diameter	Gas Side (main pipe) (brazing)		in	7/8	1-1/8
		Liquid Side (main pipe) (flare)		in	1/2	5/8
		Discharge (main pipe) (flare)		in	3/4	7/8
		Balance Pipe (flare)		in	3/8	3/8
Operation Temperature Range						
Cooling			° F DB	14~122		
Heating			° F WB	-13~60		
Indoor						
Maximum Number of Connected Indoor Units				12	25	
Maximum Capacity of Combined Indoor Units				50 to 150%		
Sound Pressure Level Cooling/Heating (*5)			dB(A)	57/60	60/63	

(*1) Rated conditions
Cooling: Indoor 80° F Dry Bulb/67° F Wet Bulb, Outdoor 95° F Dry Bulb.
Heating: Indoor 70° F Dry Bulb, Outdoor 47° F Dry Bulb/43° F Wet Bulb

(*2) The source voltage must not fluctuate more than ±10%.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on the larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).

(*5) In case the diversity exceeds 135%, the type of indoor unit is limited and the maximum number of indoor unit is reduced.

(*6) Only for outdoor unit.

The standard pipe
144 type – 228 type
Equivalent piping length
25 ft., Height difference: 0 ft.

TOSHIBA CARRIER

MCY7 HEAT PUMP SYSTEM



Toshiba Carrier VRF Single-Phase Heat Pump

FEATURES

- Ability to connect up to nine multiple-style indoor units on a 5-ton system
- High-performance outdoor unit with inverter-driven twin rotary compressor
- 208/230-1-60Hz power supply
- Cooling operating range 23° ~ 122° F
- Heating operating range -13° ~ 60° F
- Connected capacity up to 135%
- Up to 23.1 SEER2 cooling efficiency
- Up to 10.9 HSPF2 heating efficiency
- Quiet outdoor operation

COMPATIBLE WITH:

The MCY7 heat pump is matched with multiple VRF fan coils.

TOSHIBA
Carrier

VRF Heat Pump System

36,000 to 60,000 Btu/h

3 to 5 tons

KEY FEATURES

The Toshiba Carrier VRF System is a combination of an outdoor unit with multiple-style indoor units connected by refrigerant piping and wiring. The outdoor units have stacked dual-condenser fan with side-blow arrangement.

TOSHIBA CARRIER

MCY7 HEAT PUMP SYSTEM

SPECIFICATIONS:

MCY7 Outdoor Unit							
System							
Outdoor Unit Model Name		MCY-		MAP0367HS-UL	MAP0487HS-UL	MAP0607HS-UL	
Nominal Tons			Ton	3	4	5	
Performance							
Cooling Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	36	48	60	
Heating Capacity (*1) (with non-ducted indoor units/ducted)		Nominal	kBtu/h	40	54	66	
Performance Non-Ducted							
With Non-Ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz			
	Cooling	Power Consumption		kW	2.29	3.71	5.26
		EER (Energy Efficiency Ratio)		Btu/W*hr	15.7	12.95	11.4
	Heating	Power Consumption		kW	2.79	3.95	5.16
		COP (Coefficient of Performance)		Btu/W*hr	4.20	4.01	3.75
	SEER2 (Seasonal Energy Efficiency Ratio)			22.8	21.1	23.1	
	HSPF2 (Heating Seasonal Performance Ratio)			10.9	9.4	10.6	
	Performance Ducted						
With Ducted Indoor Units	Power Supply (*2)			208/230V, 1-Phase, 60Hz			
	Cooling	Power Consumption		kW	2.76	4.87	5.76
		EER (Energy Efficiency Ratio)		Btu/W*hr	13.05	9.85	10.42
	Heating	Power Consumption		kW	3.45	5.27	5.34
		COP (Coefficient of Performance)		Btu/W*hr	3.40	3.0	3.62
	SEER2 (Seasonal Energy Efficiency Ratio)			20.1	17.2	18.4	
	HSPF2 (Heating Seasonal Performance Ratio)			10.0	9.5	9.8	
	Dimensions						
Height			in	61	61	61	
Width			in	39.8	39.8	39.8	
Depth			in	14.6	14.6	14.6	
Total Weight	Unit		lb	311	311	311	
Compressor							
Type			Hermetic Twin Rotary Compressor				
Motor Output			kW	3.75	3.75	3.75	
Fan Unit							
Air Volume			cfm	4,520	4,690	4,850	
Refrigerant R410A (*3) (charged refrigerant amount)			lb	14.8	14.8	14.8	
Electrical Specifications	Unit	MCA (*4)		A	36.3	36.3	
		Recommended Fuse Size		A	40	40	
Piping							
Refrigerant Piping	Connecting Port Diameter	Gas Side (main pipe) (brazing)		in	5/8	5/8	
		Liquid Side (main pipe) (brazing)		in	3/8	3/8	
Operation Temperature Range							
Cooling			° F DB	23~122			
Heating			° F WB	-13~60			
Indoor							
Maximum Number of Connected Indoor Units				6	8	9	
Maximum Capacity of Combined Indoor Units				80 to 135%	80 to 135%	50 to 135%	
Sound Pressure Level Cooling/Heating (*5)			dB(A)	52/56	54/57	55/58	

(*1) Rated conditions

Cooling: Indoor 80° F Dry Bulb/67° F Wet Bulb, Outdoor 95° F Dry Bulb.
Heating: Indoor 70° F Dry Bulb, Outdoor 47° F Dry Bulb/43° F Wet Bulb.

(*2) The source voltage must not fluctuate more than $\pm 10\%$.

(*3) The amount does not consider extra piping length. Refrigerant must be added on site in accordance with the actual piping length.

(*4) Select wire size based on the larger value of MCA.

MCA: Minimum Circuit Amps (Minimum Circuit Amps required for power supply design).