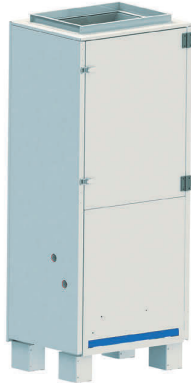


Horizontal/Vertical Fan Coil Unit

MFCVMB-AECM



Additional Standard Features:

- Vertical/horizontal drain pans
- Hot water coil assembly slides out for easier service
- Manual air vent on hot water coil
- Fully insulated cabinet
- Higher efficiency pleated filter
- Primary and secondary drain connections on cooling coil
- 115V power supply or 220V motor power supply
- Compatible with most properly sized and installed zone control systems or complete function zone controller preinstalled.

The MFCVMB Series includes a programmable, high efficiency motor that redefines comfort and energy savings. The MFCVMB motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant air flow over a wide range of external static pressures. This variable speed technology offers better indoor air quality, more precise humidity control, quieter operation, consistent indoor air temperature, and lower utility bills.

Self-Regulating Constant Air flow - The MFCVMB motor is factory programmed to maintain a predetermined level of airflow over a wide range of external static pressures, ensuring optimum system performance and whole-house comfort. The benefits of constant fan operation are:

- Consistent air distribution (and temperature) throughout the home
- Better indoor air quality (further improved with the addition of high efficiency filter) - This allows the air to be filtered without excessive drafts and without sacrificing efficiency.
- Better humidity control - The MFCVMB is designed to extract much more moisture from the air than a conventional system by slowing the airflow over the cooling coil. The result is an improved summer comfort level at higher indoor temperatures.

MFCVMB - 800 - V X - S - AECM

	AECM	EC motor configuration
	S	Complete controller with VAV&VWV control logic
	W	EC motor driver suitable for connection to EC modulating thermostat
	X	220V/1P/60Hz EC motor
	Y	115V/1P/60Hz EC motor
	P	Chilled/Hot Water, 4-Pipe
	V	Chilled/Hot Water, 2-Pipe
	VEH	Chilled Water, 2-Pipe with Electric Heater
	800~2000	Unit Sizes
	MFCVMB	Horizontal/Vertical Fan Coil Unit

Technical Data

MFCVMB



MFCVMB(3R)-V-AECM

Product range: MFCVMB(3R)-V-AECM 3-row coil 2-pipe with EC motor

MFCVMB(3R)-[Size]-V~-AECM					800	1200	1600	2000
Unit configuration		Configuration			2-pipes			
		Number of Fan Blowers			1			
		Power supply (V/Ph/Hz)			115/1/ 60 or220/1/60			
Performance Data	Air	Air flow	H	CFM	803	1370	1905	2451
			M		682	1165	1619	2083
			L		482	822	1143	1470
		ESP	H	in.wg	0.48			
			M					
			L					
	Cooling	Total Cooling Capacity	H	Btu/Hr	24143	38772	50653	66071
			M		21276	34233	44784	58167
			L		16178	26136	34322	44586
		Sensible Cooling Capacity	H		16285	26450	34831	45523
			M		14228	23087	30453	39697
			L		10675	17432	23078	30028
	Heating	Heating capacity	H	Btu/Hr	37531	60273	78742	102711
			M		33075	53216	69619	90423
			L		25149	40629	53355	69311
		Max. EH capacity		kW	4	6	7.5	9
	Sound	Sound Pressure Level(Outlet)		dB(A)	54/48/41	70/65/58	75/70/63	77/72/65
		Sound Pressure Level(Inlet + Radiated)			51/45/38	67/62/55	72/67/60	74/69/62
		Sound Pressure(Outlet)			63/57/50	79/74/67	84/79/72	86/81/74
		Sound Power Level (Inlet + Radiated)			60/54/47	76/71/64	81/76/69	83/78/71
	Electrical	Fan Motor Power	H	W	200	410	650	760
			M		130	375	500	650
			L		70	320	350	500
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.8	7.7	10.0	13.1
			M		4.2	6.8	8.8	11.5
			L		3.2	5.2	6.8	8.8
		Cooling Pressure Drop	H	ft.wg	9.4	15.0	12.4	13.7
			M		7.5	12.0	10.0	10.9
			L		4.6	7.4	6.2	6.8
		Heating Water Flow Rate	H	GPM	4.8	7.7	10.0	13.1
			M		4.2	6.8	8.8	11.5
			L		3.2	5.2	6.8	8.8
		Heating Pressure Drop	H	ft.wg	8.5	13.5	11.2	12.3
			M		6.8	10.8	9.0	9.8
			L		4.1	6.6	5.6	6.1
	Water content		US.gal	0.50	0.63	0.73	0.96	
Construction and Packing Data		Water Connections	In	inch	3/4"		1"	
			Out					
		Condensate Drainage Connection		inch	3/4"			
		Dimensions	L	inch	19 11/16	23 5/8	23 5/8	25 9/16
			W		15 3/4	15 3/4	16 15/16	19 11/16
H	51 1/16		51 1/16		56 3/4	58 3/8		

Testing conditions:

a. Cooling mode:

~Return air temperature: 80F DB/ 67F WB.

~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode:

~ Return air temperature: 70F.

~ Inlet water temperature: 140F

~ Water flow same to cooling mode

Technical Data

MFCVMB



MFCVMB-P-AECM

Product range: MFCVMB(3R+2)-P-AECM 4-pipe Unit with 3-row Cooling and 2-row Heating Coils and EC motor

MFCVMB-[Size]-P~-AECM					800	1200	1600	2000	
Unit configuration		Configuration			4 pipes				
		Number of Fan Blowers			1				
		Power supply (V/Ph/Hz)			115/1/ 60 or220/1/60				
Performance Data	Air	Air flow	H	CFM	756	1262	1826	2377	
			M		654	1100	1572	2039	
			L		467	790	1119	1448	
		ESP	H	in.wg	0.48				
			M						
			L						
	Cooling	Total Cooling Capacity	H	Btu/Hr	23140	36510	49186	64211	
			M		20631	32744	44012	57237	
			L		15953	25481	33897	44047	
		Sensible Cooling Capacity	H		15551	24800	33778	44187	
			M		13787	22016	29893	38987	
			L		10511	16978	22782	29653	
	Heating	Heating capacity	H	Btu/Hr	29652	46388	61831	80825	
			M		26437	41604	55328	72047	
			L		20442	32375	42612	55444	
		Max. EH capacity			kW	4	6	7.5	9
	Sound	Sound Pressure Level(Outlet)		dB(A)	54/48/41	70/65/58	75/70/63	77/72/65	
		Sound Pressure Level(Inlet + Radiated)			51/45/38	67/62/55	72/67/60	74/69/62	
		Max Sound Pressure(Outlet)			63/57/50	79/74/67	84/79/72	86/81/74	
		Sound Power Level (Inlet + Radiated)			60/54/47	76/71/64	81/76/69	83/78/71	
	Electrical	Fan Motor Power	H	W	200	410	650	760	
			M		130	375	500	650	
			L		70	320	350	500	
	Hydraulic	Cooling Water Flow Rate	H	GPM	4.6	7.2	9.7	12.7	
			M		4.1	6.5	8.7	11.3	
			L		3.2	5.0	6.7	8.7	
		Cooling Pressure Drop	H	ft.wg	8.7	13.4	11.8	13.0	
			M		7.1	11.0	9.7	10.6	
			L		4.5	7.0	6.0	6.6	
		Heating Water Flow Rate	H	GPM	1.5	2.3	3.1	4.0	
			M		1.3	2.1	2.8	3.6	
			L		1.0	1.6	2.1	2.8	
		Heating Pressure Drop	H	ft.wg	1.3	1.5	1.5	1.8	
			M		1.1	1.3	1.2	1.5	
			L		0.7	0.8	0.8	0.9	
		Cooling water content			US.gal	0.50	0.63	0.73	0.96
		Heating water content				0.18	0.23	0.24	0.32
Construction and Packing Data		Cooling Water Connections	In	inch	3/4"		1"		
			Out						
		Heating Water Connections	In	inch	3/4"				
			Out						
		Condensate Drainage Connection			inch	3/4"			
		Dimensions	L	inch	19 11/16	23 5/8	23 5/8	25 9/16	
W	15 3/4		15 3/4		16 15/16	19 11/16			
H	51 1/16		51 1/16		56 3/4	58 3/8			

Testing conditions:

a. Cooling mode:

~Return air temperature: 80F DB/ 67F WB.

~Inlet/ outlet water temperature: 45F/ 55F.

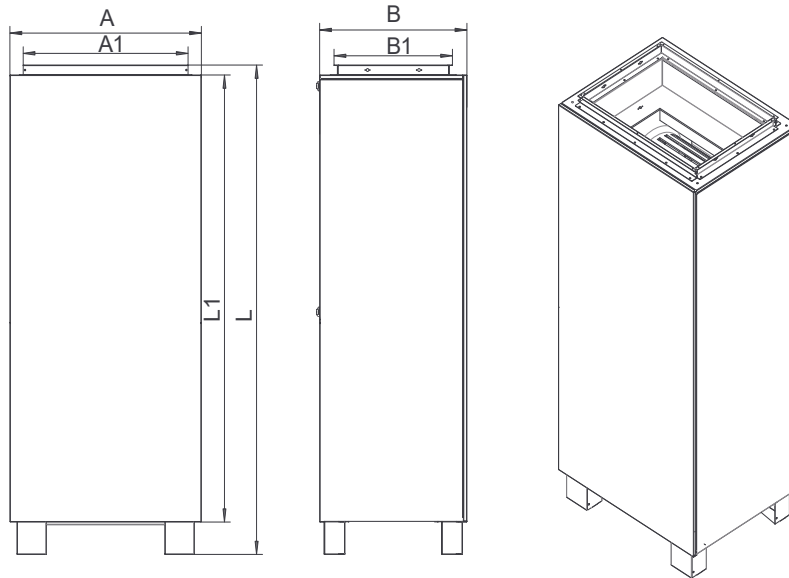
b. Heating mode:

- Return air temperature: 70F.

- Inlet/Outlet water temperature: 180F/140F

Technical Data

Dimensional drawings



Model	MFCVMB-800	MFCVMB-1200	MFCVMB-1600	MFCVMB-2000
A (inch)	19 11/16	23 5/8	23 5/8	25 9/16
A1 (inch)	18 1/8	22 1/16	22 1/16	22 1/16
B (inch)	15 3/4	15 3/4	16 15/16	19 11/16
B1(inch)	11 7/8	11 7/8	11 7/8	15 13/16
L(inch)	51 1/16	51 1/16	56 3/4	58 3/8
L1(inch)	45 15/16	45 15/16	51 5/8	53 1/4

Accessories (Optional Part)

Accessories	Photo	Code	Description
1.Valve kit		BCP25-RCS-VALVE-MFCVMB-001	24VAC 3/4" Motorized 2-way ball valve kit for MFCVMB-800-1200
		BCP25-RCS-VALVE-MFCVMB-002	24VAC 3/4" Motorized 3-way ball valve kit for MFCVMB-800-1200
		BCP25-RCS-VALVE-MFCVMB-003	24VAC 3/4" Belimo Modulating 2-way ball valve kit for MFCVMB-800-1200
		BCP25-RCS-VALVE-MFCVMB-004	24VAC 3/4" Belimo Modulating 3-way ball valve kit for MFCVMB-800-1200
		BCP25-RCS-VALVE-MFCVMB-005	24VAC 1" Motorized 2-way ball valve kit for MFCVMB-1600~2000
		BCP25-RCS-VALVE-MFCVMB-006	24VAC 1" Motorized 3-way ball valve kit for MFCVMB-1600~2000
		BCP25-RCS-VALVE-MFCVMB-007	24VAC 1" Modulating 2-way ball valve kit for MFCVMB-1600~2000
		BCP25-RCS-VALVE-MFCVMB-008	24VAC 1" Modulating 3-way ball valve kit for MFCVMB-1600~2000





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