

Vertical or Horizontal Console

Chilled Water / Hot Water



MFCVE-AECM



MFCVE units independently provide comfort cooling and heating within a room. They are often located against walls or ceiling, beneath windows or along the perimeter of a room to accommodate maximum load requirements.

- » Performance in accordance to Standard AHRI440
- » Sound Performance tested as per AHRI Standard 350-2000 (non-ducted equipment)
- » ETL-Listed, Constructed in compliance with ANSI/UL 1995 Standard
- » High-efficiency Variable speed ECM motor available for higher energy efficiency
- » Completed controller with VAV &VWV control logic;
- » Merv 4 class filter as standard;
- » 2-way /3-way modulating valve kit with Isolation ball valves & strainer can be pre-installation in factory.
- » 6-way valve as optional;

MFCVE - 300 - V X - S - AECM



AECM	EC motor configuration
S	Complete controller with VAV&VWV control logic
W	EC motor driver suitable for connection to AC or EC modulating thermostat
X	220V EC motor
Y	115V EC motor
P	Chilled/Hot Water, 4-Pipe
V	Chilled/Hot Water, 2-Pipe
VEH	Chilled Water, 2-Pipe with Electric Heater
200~1400	Unit Sizes.
MFCVE	Vertical or Horizontal Exposed Series

Technical Data

MFCVE-AECM

MFCVE (3R)-V-AECM

Console Unit 2-pipe with 3-row Coil and EC motor



MFCVE(3R)-[Size]-V~AECM					200	300	400	500	600	800	1000	1200	1400		
Unit Configuration	Configuration				2-pipe										
	Number Of Fan Blowers				Single	Twin					Four				
	Power Supply		(V/Ph/Hz)		115 / 1 / 60 or 220 / 1 / 60										
	Operation Control				~S: Complete controller with VAV&VWV control logic										
				~W: EC motor driver suitable for connection to AC or EC modulating thermostat											
Performance Data	Air	Air Flow	H	3	CFM	206	296	398	494	571	794	955	1169	1333	
			M	2		165	254	318	410	486	688	847	1006	1196	
			L	1		124	201	224	255	289	398	435	524	559	
	Cooling	Cooling Capacity	H	3	Btu/Hr	6204	8658	11209	14284	16545	22823	27205	31555	36130	
			M	2		5308	7706	9557	12465	14580	20497	25146	28412	33533	
			L	1		4222	6459	7252	8670	9809	13351	14892	16972	18783	
		Sensible Cooling Capacity	H	3		4196	5885	7681	9698	11131	15455	18374	21713	24650	
			M	2		3540	5179	6453	8357	9725	13735	16827	19338	22766	
			L	1		2794	4314	4840	5703	6397	8723	9675	11228	12298	
	Heating	Heating Capacity	H	3	Btu/Hr	9644	13460	17425	22206	25719	35480	42291	49054	56165	
			M	2		8251	11979	14856	19377	22665	31863	39090	44168	52128	
			L	1		6563	10041	11274	13478	15249	20755	23151	26384	29199	
		Max. Electric Heater Capacity	kW			1	1.5	2	2	2	3	3	3	3	
	Sound	Sound Pressure Level				dB(A)	41/35/29	43/38/33	47/40/33	49/44/33	51/47/33	52/48/33	54/50/33	57/54/35	60/58/35
		Sound Power Level					50/44/38	52/47/42	56/49/42	58/53/42	60/55/42	61/57/42	63/59/42	66/63/44	69/67/44
	Electrical	Power input	H	3	W	17	26	38	44	52	87	100	128	182	
			M	2		13	15	23	30	36	60	71	92	147	
			L	1		8	11	12	13	14	22	24	28	30	
	Hydraulic	Cooling Water Flow Rate	3		GPM	1.23	1.71	2.21	2.82	3.27	4.51	5.37	6.23	7.13	
			2			1.05	1.52	1.89	2.46	2.88	4.05	4.97	5.61	6.62	
			1			0.83	1.28	1.43	1.71	1.94	2.64	2.94	3.35	3.71	
		Cooling Pressure Drop	3		ft.wg	3.18	6.03	3.67	6.43	8.7	8.79	13.08	6.14	8.3	
			2			2.44	4.95	2.8	5.1	7.01	7.32	11.44	5.13	7.31	
			1			1.65	3.66	1.75	2.75	3.58	3.53	4.7	2.14	2.73	
Heating Water Flow Rate		3		GPM	1.23	1.71	2.21	2.82	3.27	4.51	5.37	6.23	7.13		
		2			1.05	1.52	1.89	2.46	2.88	4.05	4.97	5.61	6.62		
		1			0.83	1.28	1.43	1.71	1.94	2.64	2.94	3.35	3.71		
Heating Pressure Drop		3		ft.wg	2.86	5.43	3.3	5.78	7.83	7.91	11.77	5.52	7.47		
		2			2.19	4.45	2.52	4.59	6.31	6.59	10.3	4.62	6.58		
		1			1.49	3.3	1.57	2.47	3.22	3.18	4.23	1.92	2.46		
Water Content				Us.gal	0.17	0.20	0.25	0.31	0.33	0.46	0.52	0.58	0.64		
Construction and Packing Data	Water Connections	Type			Socket(Threaded Female)										
		In	inch	NPT 3/4"											
		Out		Dia.5/8"											
	Condensate Drainage Connection														
	Dimensions	L	inch	33-3/4	35-3/4	41-5/8	47-9/16	49-1/2	63-5/16	69-3/16	75-1/8	81			
		W		9-13/16											
H		19-1/2													
Net Weight				lbs	49	53	57	66	71	104	104	108	119		

a. Cooling mode (2-pipe):

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

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

b. Heating mode (2-pipe):

~ Return air temperature: 70F.

~ Inlet water temperature: 140F

~ Water flow same to cooling mode

Technical Data

MFCVE-AECM



MFCVE (3R+1)-P-ECM

Console Unit MFCVE (3R+1)-P~ Universal 4-pipe Unit with 3-row Coil for cooling, 1-row coil for heating and EC motor

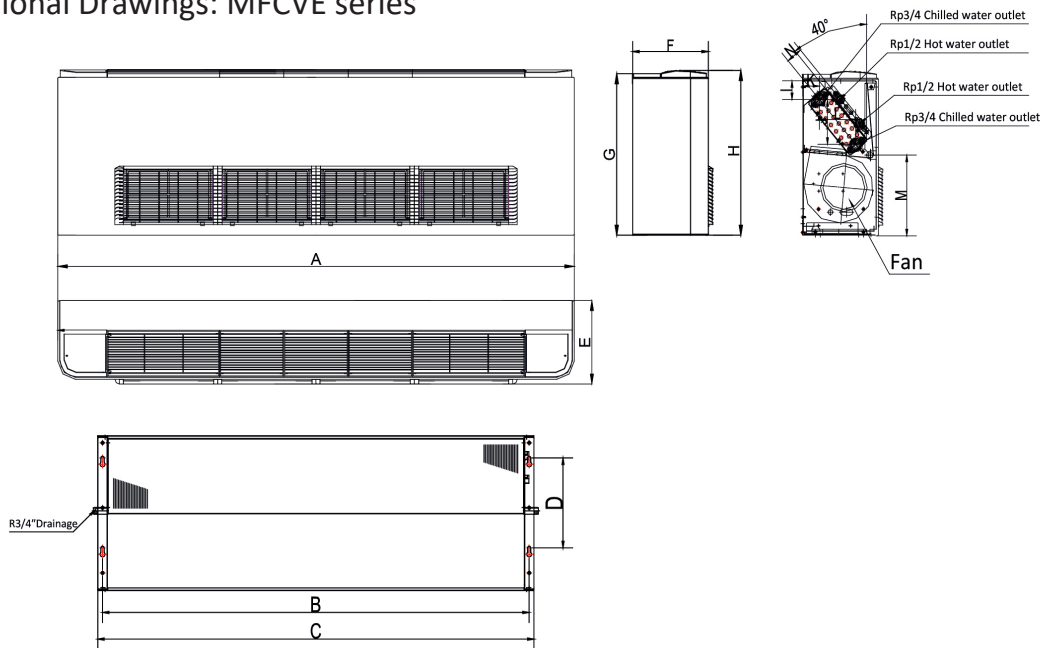
MFCVE(3R+1)-[Size]-P~-AECM					200	300	400	500	600	800	1000	1200	1400	
Unit Configuration	Configuration				4-pipe									
	Number Of Fan Blowers				Single	Twin					Four			
	Power Supply			(V/Ph/Hz)	115 / 1 / 60 or 220 / 1 / 60									
	Operation Control				~S: Complete controller with VAV&VWV control logic ~W: EC motor driver suitable for connection to AC or EC modulating thermostat									
Performance Data	Air	Air Flow	H	3	CFM	206	296	398	494	571	794	955	1169	1333
			M	2		165	254	318	410	486	688	847	1006	1196
			L	1		124	201	224	255	289	398	435	524	559
	Cooling	Cooling Capacity	H	3	Btu/Hr	6919	9942	12709	15805	19883	26220	31719	36781	41879
			M	2		6009	8813	10925	13510	17371	23452	28733	32520	36344
			L	1		4552	7320	8267	9760	14894	15149	16861	19410	21049
		Sensible Cooling Capacity	H	3		4642	6689	8635	10614	10239	17679	21263	25017	28532
			M	2		4027	5904	7372	9044	11672	15734	19215	22082	24573
			L	1		3003	4881	5529	6485	7270	10034	11126	12969	13993
	Heating	Heating Capacity	H	3	Btu/Hr	6214	8816	11747	14594	16377	22719	26377	31485	35540
			M	2		5496	7773	9990	12732	14693	20581	24542	28807	33553
			L	1		4184	6589	8645	11364	12628	17992	21725	24157	29540
	Max. Electric Heater Capacity				kW	1	1.5	2	2	2	3	3	3	3
	Sound	Sound Pressure Level			dB(A)	41/35/29	43/38/33	47/40/33	49/44/33	51/47/33	52/48/33	54/50/33	57/54/35	60/58/35
		Sound Power Level				50/44/38	52/47/42	56/49/42	58/53/42	60/55/42	61/57/42	63/59/42	66/63/44	69/67/44
	Electrical	Power input	H	3	W	17	26	38	44	52	87	100	128	182
			M	2		13	15	23	30	36	60	71	92	147
			L	1		8	11	13	22	23.1	40	51	56	92
	Hydraulic	Cooling Water Flow Rate	3		GPM	1.53	2.20	2.81	3.50	4.41	5.82	7.03	8.14	9.32
			2			1.33	1.95	2.42	2.99	3.85	5.20	6.36	7.21	8.05
1			1.01	1.62		1.83	2.16	2.43	3.36	3.74	4.30	4.66		
Cooling Pressure Drop		3		ft.wg	4.3	8.5	5.1	8.5	13.2	12.4	18.9	8.7	12.0	
		2			3.4	6.9	3.9	6.5	10.4	10.2	15.9	7.1	9.1	
		1			2.1	5.0	2.4	3.7	4.7	4.8	6.3	2.9	3.6	
Heating Water Flow Rate		3		GPM	0.3	0.4	0.6	0.7	0.8	1.1	1.3	1.6	1.8	
		2			0.3	0.4	0.5	0.6	0.7	1.0	1.2	1.4	1.7	
		1			0.2	0.3	0.4	0.6	0.6	0.9	1.1	1.2	1.5	
Heating Pressure Drop		3		ft.wg	0.05	0.10	0.20	0.30	0.40	0.10	0.20	0.30	0.40	
		2			0.04	0.10	0.10	0.30	0.30	0.10	0.20	0.30	0.40	
		1			0.02	0.10	0.10	0.20	0.30	0.10	0.10	0.20	0.30	
Chilled Water Content				Us.gal	0.17	0.20	0.25	0.31	0.33	0.46	0.52	0.58	0.64	
Hot Water Content					0.06	0.07	0.08	0.10	0.11	0.15	0.17	0.19	0.21	
Construction and Packing Data	Water		Type		Socket(Threaded Female)									
	Chilled Coil Connections	In		in	NPT 3/4"									
		Out			NPT 1/2"									
	Hot Coil Connections	In			Dia.5/8"									
		Out			33-3/4									
	Condensate Drainage Connection				9-13/16									
	Dimensions	L		inch	19-1/2									
W		49												
H		53												
Net Weight				lbs	49	53	57	66	71	104	104	108	119	

a. Cooling mode (4-pipe):
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 55F.

b. Heating mode (4-pipe):
~Return air temperature: 70F.
~Inlet/Outlet water temperature: 180F/140F

Technical Data

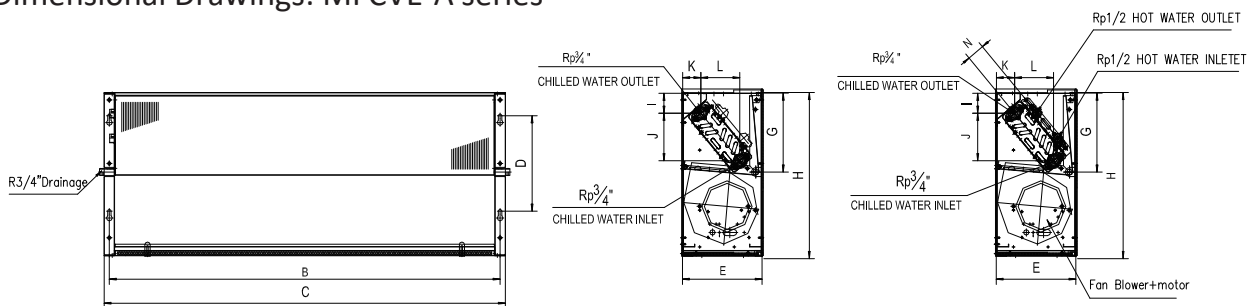
Dimensional Drawings: MFCVE series



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
MFCVE-200	33-3/4	22-3/4	23-15/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-300	35-3/4	24-3/4	25-15/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-400	41-5/8	30-5/8	31-13/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-500	47-9/16	36-9/16	37-3/4	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-600	49-1/2	38-1/2	39-11/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-800	63-5/16	52-5/16	53-7/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-1000	69-3/16	58-3/16	59-3/8	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-1200	75-1/8	64-1/16	65-1/4	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2
MFCVE-1400	81	70	71-3/16	10-5/8	9-13/16	9-1/4	19-1/16	19-7/16	2-1/4	5-1/4	2-1/16	4-7/16	9-1/2	2

(All dimensions are approximate within 1/16 of an inch of those indicated)

Dimensional Drawings: MFCVE-A series



Model	B	C	D	E	G	H	I	J	K	L	N
MFCVE-200-A	22-3/4	23-15/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-300-A	24-3/4	25-15/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-400-A	30-5/8	31-13/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-500-A	36-9/16	37-3/4	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-600-A	38-1/2	39-11/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-800-A	52-5/16	53-7/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-1000-A	58-3/16	59-3/8	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-1200-A	64-1/16	65-1/4	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2
MFCVE-1400-A	70	71-3/16	10-5/8	9-1/16	8-3/4	18-1/8	2-1/4	5-1/4	2-1/16	4-7/16	2

Technical Data

MFCVE-AECM



Accessories / Options

Accessories	Photo	Code	Description
ABS Feet		BCP-MFCVE-004	ABS supporting feet for floor standing applications
External Drain Pans		BCP-MFCVE-001	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with right-sided coil connections
		BCP-MFCVE-002	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with left-sided coil connections
		BCP-MFCVE-003	Painted steel drain pan for floor standing installation, fixed wall installation and built-in vertical installations. Suitable for left-side and right-side unit coil connections
Stainless Steel Drain Pans		BCP-SSDP-MFCVE-001	Stainless steel drain pan for MFCVE-200
		BCP-SSDP-MFCVE-002	Stainless steel drain pan for MFCVE-300
		BCP-SSDP-MFCVE-003	Stainless steel drain pan for MFCVE-400
		BCP-SSDP-MFCVE-004	Stainless steel drain pan for MFCVE-500
		BCP-SSDP-MFCVE-005	Stainless steel drain pan for MFCVE-600
		BCP-SSDP-MFCVE-006	Stainless steel drain pan for MFCVE-800
		BCP-SSDP-MFCVE-007	Stainless steel drain pan for MFCVE-1000
		BCP-SSDP-MFCVE-008	Stainless steel drain pan for MFCVE-1200
		BCP-SSDP-MFCVE-009	Stainless steel drain pan for MFCVE-1400
Merv8 filters		AA14-M8-MFCVE-001	HAF 3M filter , 1Pcs for MFCVE-R3-200 installation only
		AA14-M8-MFCVE-002	HAF 3M filter , 1Pcs for MFCVE-R3-300 installation only
		AA14-M8-MFCVE-003	HAF 3M filter , 1Pcs for MFCVE-R3-400 installation only
		AA14-M8-MFCVE-004	HAF 3M filter , 1Pcs for MFCVE-R3-500 installation only
		AA14-M8-MFCVE-005	HAF 3M filter , 1Pcs for MFCVE-R3-600 installation only
		AA14-M8-MFCVE-006	HAF 3M filter , 1Pcs for MFCVE-R3-800 installation only
		AA14-M8-MFCVE-007	HAF 3M filter , 1Pcs for MFCVE-R3-1000 installation only
		AA14-M8-MFCVE-008	HAF 3M filter , 1Pcs for MFCVE-R3-1200 installation only
		AA14-M8-MFCVE-009	HAF 3M filter , 1Pcs for MFCVE-R3-1400 installation only
Valve kits		BCP18-RCS-VALVE-MFCVE-001	115~240VAC 3/4" 2-way on/off thermal valve kit
		BCP18-RCS-VALVE-MFCVE-002	115~240VAC 3/4" 3-way on/off thermal valve kit
		BCP18-RCS-VALVE-MFCVE-003	24VAC 3/4" Modulating 2-way thermal valve kit
		BCP18-RCS-VALVE-MFCVE-004	24VAC 3/4" Modulating 3-way thermal valve kit
Controls		BCP18-SW-MFCVE-001	Disconnect switch for iFCVE
Heating coils		BCP-COIL(L1)-MFCVE-001	Additional 1-row heating coil for size 200 (2p).
		BCP-COIL(L1)-MFCVE-002	Additional 1-row heating coil for size 300 (2p).
		BCP-COIL(L1)-MFCVE-003	Additional 1-row heating coil for size 400 (2p).
		BCP-COIL(L1)-MFCVE-004	Additional 1-row heating coil for size 500 (2p).
		BCP-COIL(L1)-MFCVE-005	Additional 1-row heating coil for size 600 (2p).
		BCP-COIL(L1)-MFCVE-006	Additional 1-row heating coil for size 800 (2p).
		BCP-COIL(L1)-MFCVE-007	Additional 1-row heating coil for size 1000 (2p).
		BCP-COIL(L1)-MFCVE-008	Additional 1-row heating coil for size 1200 (2p).
		BCP-COIL(L1)-MFCVE-009	Additional 1-row heating coil for size 1400 (2p).
E-heater kits		BCP18-EH-MFCVE-PTC-001	1 kW 220V PTC electric heat module for MFCVE
		BCP18-EH-MFCVE-PTC-002	1.5 kW 220V PTC electric heat module for MFCVE
		BCP18-EH-MFCVE-PTC-003	2 kW 220V PTC electric heat module for MFCVE
		BCP18-EH-MFCVE-PTC-004	2.5 kW 220V PTC electric heat module for MFCVE
		BCP18-EH-MFCVE-PTC-005	3 kW 220V PTC electric heat module for MFCVE



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