

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



MFCVE(3R)-V-AECM

Product range: MFCVE (3R)-V~ Universal 2-pipe Unit with 3-row Coil and EC motor

MFCVE(4R)-[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	5784	8147	10954	13746	16009	21943	26071	31034	35266	
			M	2		4949	7250	9339	11995	14108	19707	24097	27943	32731	
			L	1		3936	6077	7087	8343	9492	12837	14272	16692	18334	
		Sensible Cooling Capacity	H	3		4075	5734	7676	9631	11132	15349	18196	21872	24721	
			M	2		3438	5047	6449	8299	9726	13641	16664	19479	22831	
			L	1		2713	4204	4838	5663	6398	8663	9581	11310	12333	
	Heating	Heating Capacity	H	3	Btu/Hr	8992	12664	17028	21369	24887	34112	40528	48244	54823	
			M	2		7693	11271	14518	18647	21932	30635	37460	43438	50882	
			L	1		6119	9447	11017	12970	14755	19955	22186	25948	28501	
		Max. Electric Heater Capacity		kW		1	1.5	2	2	2.5	3	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	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7	
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4	
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4	
		Cooling Pressure Drop	3		ft.wg	1.8	3.5	6.9	11.8	16.0	11.6	17.2	11.7	15.5	
			2			1.4	2.8	5.2	9.3	12.8	9.5	15.0	9.7	13.6	
			1			0.9	2.1	3.2	4.8	6.3	4.4	5.8	3.8	4.8	
		Heating Water Flow Rate	3		GPM	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7	
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4	
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4	
		Heating Pressure Drop	3		ft.wg	1.6	3.1	6.2	10.7	14.4	10.4	15.5	10.5	14.0	
			2			1.2	2.6	4.7	8.3	11.5	8.6	13.5	8.7	12.2	
			1			0.8	1.9	2.8	4.3	5.6	4.0	5.2	3.4	4.3	
	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		Type			Socket(Threaded Female)									
	Connections	In	in	NPT 3/4"											
		Out		Dia.5/8"											
	Condensate Drainage Connection			Dia.5/8"											
	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			

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



MFCVE



MFCVE(4R)-V-AECM

Product range: MFCVE (4R)-V~ Universal 2-pipe Unit with 4-row Coil and EC motor

MFCVE(4R)-[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	5784	8147	10954	13746	16009	21943	26071	31034	35266	
			M	2		4949	7250	9339	11995	14108	19707	24097	27943	32731	
			L	1		3936	6077	7087	8343	9492	12837	14272	16692	18334	
		Sensible Cooling Capacity	H	3		4075	5734	7676	9631	11132	15349	18196	21872	24721	
			M	2		3438	5047	6449	8299	9726	13641	16664	19479	22831	
			L	1		2713	4204	4838	5663	6398	8663	9581	11310	12333	
	Heating	Heating Capacity	H	3	Btu/Hr	8992	12664	17028	21369	24887	34112	40528	48244	54823	
			M	2		7693	11271	14518	18647	21932	30635	37460	43438	50882	
			L	1		6119	9447	11017	12970	14755	19955	22186	25948	28501	
		Max. Electric Heater Capacity				kW	1	1.5	2	2	2.5	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	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7	
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4	
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4	
		Cooling Pressure Drop	3		ft.wg	1.8	3.5	6.9	11.8	16.0	11.6	17.2	11.7	15.5	
			2			1.4	2.8	5.2	9.3	12.8	9.5	15.0	9.7	13.6	
			1			0.9	2.1	3.2	4.8	6.3	4.4	5.8	3.8	4.8	
		Heating Water Flow Rate	3		GPM	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7	
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4	
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4	
		Heating Pressure Drop	3		ft.wg	1.6	3.1	6.2	10.7	14.4	10.4	15.5	10.5	14.0	
			2			1.2	2.6	4.7	8.3	11.5	8.6	13.5	8.7	12.2	
			1			0.8	1.9	2.8	4.3	5.6	4.0	5.2	3.4	4.3	
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		Type		Socket(Threaded Female)									
		Connections		In	in	NPT 3/4"									
				Out		Dia.5/8"									
		Condensate Drainage Connection				Dia.5/8"									
		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		

Testing conditions:

a. Cooling mode:
~Return air temperature: 80F DB/ 67F WB.
~Inlet/ outlet water temperature: 45F/ 60F.

b. Heating mode:
~ Return air temperature: 70F.
~ Inlet water temperature: 140F.
~ Water flow same to cooling mode

Technical Data



MFCVE



MFCVE(3R+1)-P-AECM

Product range: MFCVE Universal Uncased/Cabinet Fan Coil Unit

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

MFCVE(4R)-[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	5784	8147	10954	13746	16009	21943	26071	31034	35266
			M	2		4949	7250	9339	11995	14108	19707	24097	27943	32731
			L	1		3936	6077	7087	8343	9492	12837	14272	16692	18334
		Sensible Cooling Capacity	H	3		4075	5734	7676	9631	11132	15349	18196	21872	24721
			M	2		3438	5047	6449	8299	9726	13641	16664	19479	22831
			L	1		2713	4204	4838	5663	6398	8663	9581	11310	12333
	Heating	Heating Capacity	H	3	Btu/Hr	8992	12664	17028	21369	24887	34112	40528	48244	54823
			M	2		7693	11271	14518	18647	21932	30635	37460	43438	50882
			L	1		6119	9447	11017	12970	14755	19955	22186	25948	28501
		Max. Electric Heater Capacity				kW	1	1.5	2	2	2.5	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	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4
		Cooling Pressure Drop	3		ft.wg	1.8	3.5	6.9	11.8	16.0	11.6	17.2	11.7	15.5
			2			1.4	2.8	5.2	9.3	12.8	9.5	15.0	9.7	13.6
			1			0.9	2.1	3.2	4.8	6.3	4.4	5.8	3.8	4.8
		Heating Water Flow Rate	3		GPM	0.8	1.1	1.5	1.8	2.1	2.9	3.5	4.1	4.7
			2			0.7	1.0	1.2	1.6	1.9	2.6	3.2	3.7	4.4
			1			0.5	0.8	0.9	1.1	1.3	1.7	1.9	2.2	2.4
		Heating Pressure Drop	3		ft.wg	1.6	3.1	6.2	10.7	14.4	10.4	15.5	10.5	14.0
			2			1.2	2.6	4.7	8.3	11.5	8.6	13.5	8.7	12.2
			1			0.8	1.9	2.8	4.3	5.6	4.0	5.2	3.4	4.3
	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		Type		Socket(Threaded Female)								
		Connections	In	in	NPT 3/4"									
			Out											
		Condensate Drainage Connection			Dia.5/8"									
		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		

Testing conditions:

a. Cooling mode:

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

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

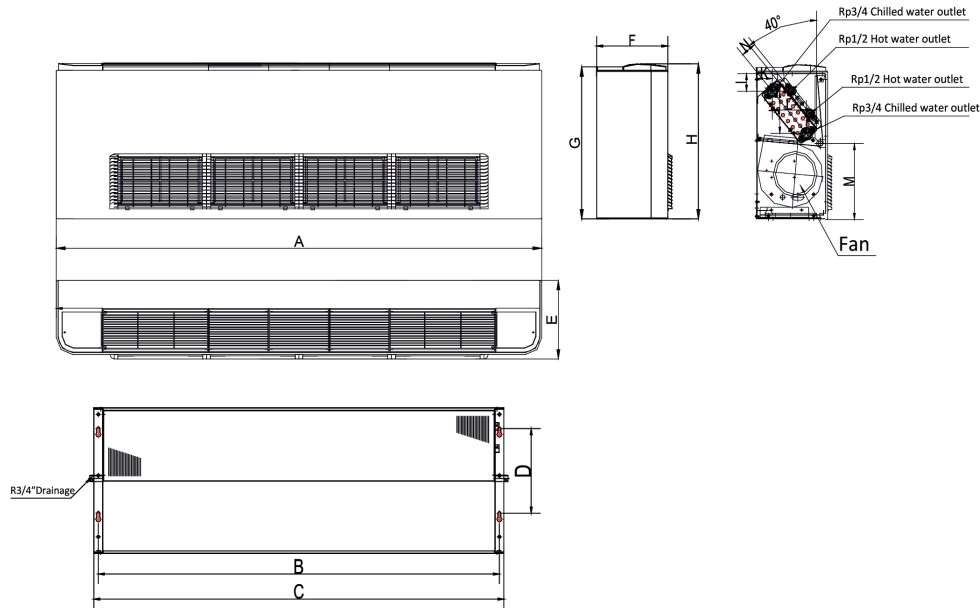
b. Heating mode:

~ Return air temperature: 70F.

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

Technical Data

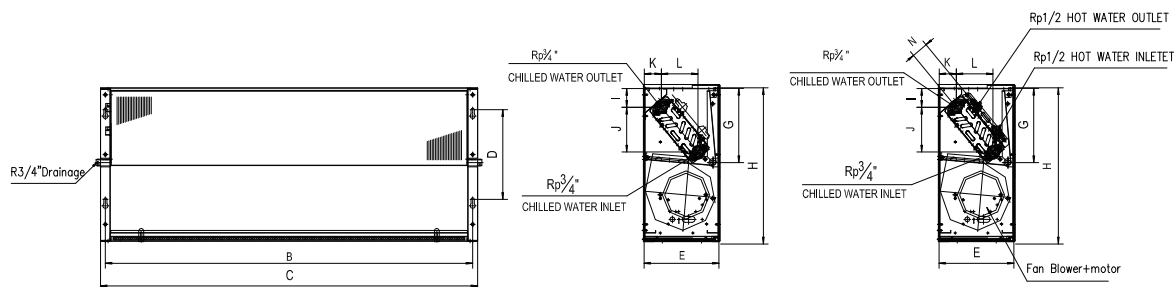
Dimensional Drawings: MFCVE series



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

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

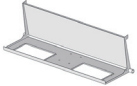
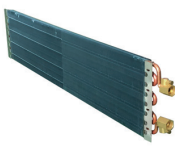
Technical Data



MFCVE



Accessories (Optional Parts)

Accessories	Photo	Code	Description
1. ABS		BCP-WMU-004	ABS supporting feet for floor standing applications
2. External Drain pan		BCP-WMU-001	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with right-sided coil connections
		BCP-WMU-002	Painted steel drain pan for suspended ceiling installation or built-in horizontal installation with left-sided coil connections
		BCP-WMU-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.
3. Drain Pan		BCP-SSDP-WMU-001	Stainless steel drain pan for MFCVE-200
		BCP-SSDP-WMU-002	Stainless steel drain pan for MFCVE-300
		BCP-SSDP-WMU-003	Stainless steel drain pan for MFCVE-400
		BCP-SSDP-WMU-004	Stainless steel drain pan for MFCVE-500
		BCP-SSDP-WMU-005	Stainless steel drain pan for MFCVE-600
		BCP-SSDP-WMU-006	Stainless steel drain pan for MFCVE-800
		BCP-SSDP-WMU-007	Stainless steel drain pan for MFCVE-1000
		BCP-SSDP-WMU-008	Stainless steel drain pan for MFCVE-1200
		BCP-SSDP-WMU-009	Stainless steel drain pan for MFCVE-1400
4. Filter		AA14-M8-WMU-001	G4 filter , 1Pcs for MFCVE-200 installation only
		AA14-M8-WMU-002	G4 filter , 1Pcs for MFCVE-300 installation only
		AA14-M8-WMU-003	G4 filter , 1Pcs for MFCVE-400 installation only
		AA14-M8-WMU-004	G4 filter , 1Pcs for MFCVE-500 installation only
		AA14-M8-WMU-005	G4 filter , 1Pcs for MFCVE-600 installation only
		AA14-M8-WMU-006	G4 filter , 1Pcs for MFCVE-800 installation only
		AA14-M8-WMU-007	G4 filter , 1Pcs for MFCVE-1000 installation only
		AA14-M8-WMU-008	G4 filter , 1Pcs for MFCVE-1200 installation only
		AA14-M8-WMU-009	G4 filter , 1Pcs for MFCVE-1400 installation only
5. Valve kit		BCP25-RCS-VALVE-MFCVE-001	24VAC 3/4" 2-way thermal valve kit
		BCP25-RCS-VALVE-MFCVE-002	24VAC 3/4" 3-way thermal valve kit for Right connection
		BCP25-RCS-VALVE-MFCVE-003	24VAC 3/4" 3-way thermal valve kit for Left connection
		BCP25-RCS-VALVE-MFCVE-004	24VAC 1/2" 2-way thermal valve kit
		BCP25-RCS-VALVE-MFCVE-005	24VAC 1/2" 3-way thermal valve kit for Right connection
		BCP25-RCS-VALVE-MFCVE-006	24VAC 1/2" 3-way thermal valve kit for Left connection
		BCP25-RCS-VALVE-MFCVE-007	24VAC 3/4" Modulating 2-way ball valve kit
		BCP25-RCS-VALVE-MFCVE-008	24VAC 1/2" Modulating 2-way ball valve kit
7. Heating coil		BCP-COIL(L1)-WMU-001	Additional 1-row heating coil for size 200
		BCP-COIL(L1)-WMU-002	Additional 1-row heating coil for size 300
		BCP-COIL(L1)-WMU-003	Additional 1-row heating coil for size 400
		BCP-COIL(L1)-WMU-004	Additional 1-row heating coil for size 500
		BCP-COIL(L1)-WMU-005	Additional 1-row heating coil for size 600
		BCP-COIL(L1)-WMU-006	Additional 1-row heating coil for size 800
		BCP-COIL(L1)-WMU-007	Additional 1-row heating coil for size 1000
		BCP-COIL(L1)-WMU-008	Additional 1-row heating coil for size 1200
		BCP-COIL(L1)-WMU-009	Additional 1-row heating coil for size 1400
8. E-heater kit		BCP25-EH-220-WMU-PTC-001	1 kW 220V PTC electric heat module for MFCVE-200
		BCP25-EH-220-WMU-PTC-002	1.5 kW 220V PTC electric heat module for MFCVE-300~400
		BCP25-EH-220-WMU-PTC-003	2.0 kW 220V PTC electric heat module for MFCVE-500
		BCP25-EH-220-WMU-PTC-004	2.5 kW 220V PTC electric heat module for MFCVE-600
		BCP25-EH-220-WMU-PTC-005	3.0 kW 220V PTC electric heat module for MFCVE-800~1400





**33380 Zeiders Road, Suite 101
Menifee, CA 92584**

**Phone 888-741-9775
Fax 760-480-8904**

www.multimfg-usa.com