

VERTICAL M VINTAGE QUAD

SUBMITTAL PACKAGE

168V_288V_M_QUAD

Mammoth Inc. certifies that it will furnish equipment in accordance with this drawing and specifications, and subject to its published warranty. Purchaser's approval of this drawing signifies that the equipment is acceptable under the provisions of the job specifications. Any change made hereon by any person whomever is subject to acceptance by Mammoth Inc. 13200 Pioneer Trail, Ste 150, Eden Prairie, MN 55347.

General Specifications

CABINET - Outer casing of G-60 galvanized steel.

REFRIGERANT CIRCUIT - Hermetically sealed 410A circuitry with reversing valve (HP only), TX metering device, and high/low side access valve.

COMPRESSOR - Hermetic type with PSC or three phase motor, overload protection and mounted on neoprene isolators.

AIR COIL - Seamless copper tubes and aluminum fins.

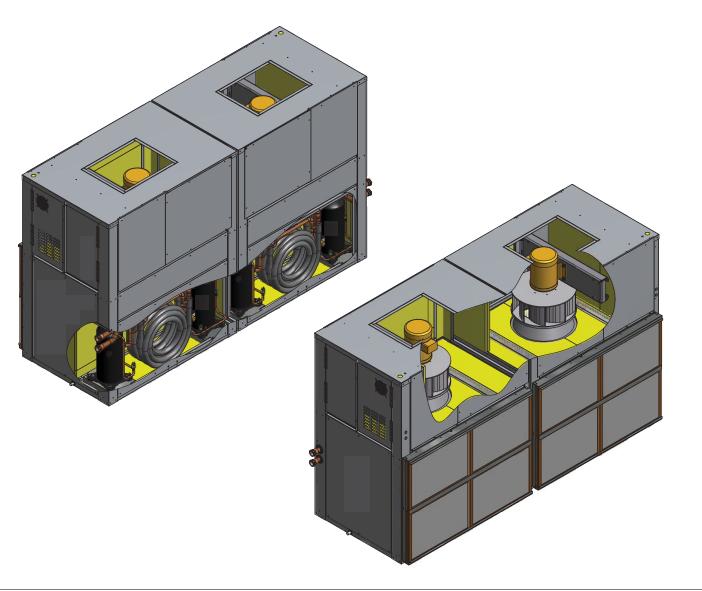
HEAT EXCHANGER - Coaxial water to refrigerant with steel outer tube and convoluted copper inner tube.

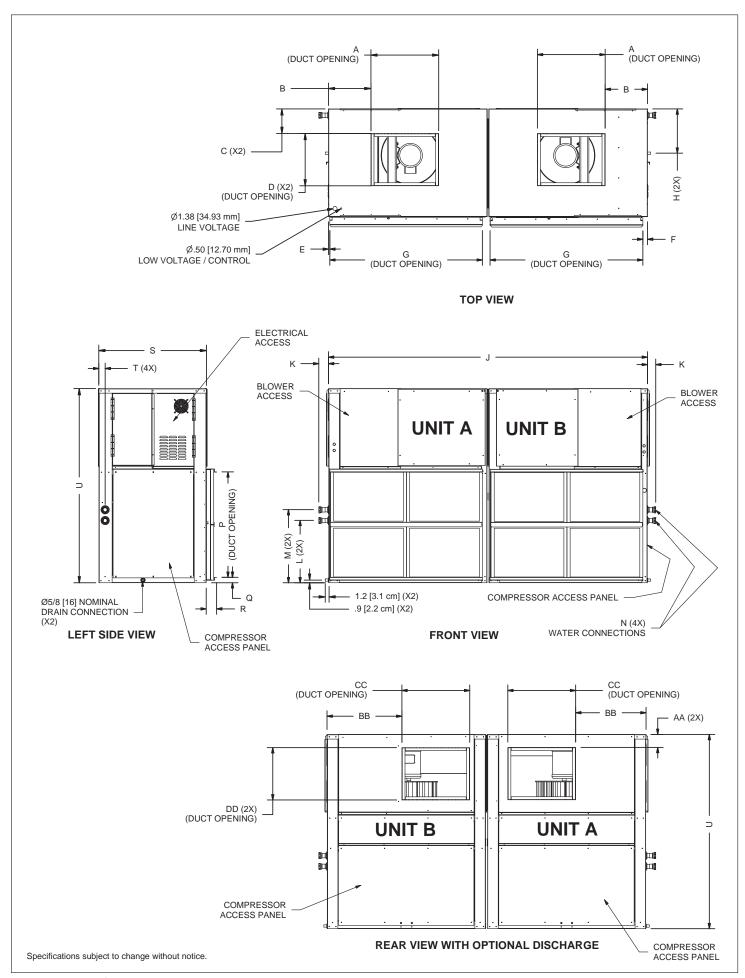
FILTER - 1-inch thick disposable

INSULATION - Thermally and acoustically optimized 3/4 inch thick, 1 1/2 lb. density faced.

FAN - Direct drive, dynamically balanced, airfoil shaped plug fan. FAN MOTOR - Premium efficiency TEAO with sealed, locked bearings, and overload protection.

ELECTRICAL - 24-volt microprocessor control system with fan relay, compressor contactor, reversing valve coil (HP only). CONTROL - Standard CAV operation by field mounted, wall type thermostat. Optional VAV operation with MDDC.





DIMENSION	UNIT SIZE						
INCHES [CM]	168	192	240	288			
А	22 [55.9]	22 [55.9]	22 [55.9]	22 [55.9]			
В	13.8 [34.9]	13.8 [34.9]	13.8 [34.9]	13.8 [34.9]			
С	8 [20.3]	8 [20.3]	8 [20.3]	8 [20.3]			
D	17 [43.2]	17 [43.2]	17 [43.2]	17 [43.2]			
Е	.4 [1]	.4 [1]	.4 [1]	.4 [1]			
F	1.5 [3.8]	1.5 [3.8]	1.5 [3.8]	1.5 [3.8]			
G	49.5 [125.7]	49.5 [125.7]	49.5 [125.7]	49.5 [125.7]			
Н	14.4 [36.6]	14.4 [36.6]	14.4 [36.6]	14.4 [36.6]			
J	103 [261.6]	103 [261.6]	103 [261.6]	103 [261.6]			
K	1.9 [4.8]	1.9 [4.8]	1.9 [4.8]	1.9 [4.8]			
L	20.1 [51]	20.1 [51]	20.1 [51]	20.1 [51]			
М	23.1 [58.7]	23.1 [58.7]	23.1 [58.7]	23.1 [58.7]			
N	1-1/4 [3.2] FNPT	1-1/4 [3.2] FNPT	1-1/4 [3.2] FNPT	1-1/4 [3.2] FNPT			
Р	24 [61]	24 [61]	34.2 [86.9]	34.2 [86.9]			
Q	2.6 [6.6]	2.6 [6.6]	1.8 [4.4]	1.8 [4.4]			
R	3.4 [8.6]	3.4 [8.6]	3.4 [8.6]	3.4 [8.6]			
S	37.5 [95.3]	37.5 [95.3]	37.5 [95.3]	37.5 [95.3]			
Т	2.1 [5.4]	2.1 [5.4]	2.1 [5.4]	2.1 [5.4]			
U	63 [160]	63 [160]	63 [160]	63 [160]			
AA	4.2 [10.7]	4.2 [10.7]	4.2 [10.7]	4.2 [10.7]			
BB	22.8 [57.9]	22.8 [57.9]	22.8 [57.9]	22.8 [57.9]			
CC	22 [55.9]	22 [55.9]	22 [55.9]	22 [55.9]			
DD	17 [43.2]	17 [43.2]	17 [43.2]	17 [43.2]			

FILTER SIZE & QTY'S.								
UNIT SIZE	UNIT SIZE 168 192 240 288							
FILTER SIZE 25 X 25 X 1 (4) 16 X 25 X 1 (6) 18 X 25 X 1 (8) 18 X 25 X 1 (

WEIGHTS	UNIT SIZE							
Lbs [Kg]	168 192 240 288							
SHIPPING	1900 [862]	1980 [900]	2120 [962]	2180 [990]				

	ELECTRICAL DATA											
	Unit Size	Voltage	Compi	LRA	Blower Motor HP	Blower Motor FLA	VFD Input Current	Total Amps	Min/Max Voltages	Minimum Circuit Amps	Maximum Overcurrent Protection (MOPD)	
	168	208-230/60/3	12.2	104	2 @ 1.5	13.8	246	794	187/253	76.6	1000	~
>	168	460/60/3	5.4	44>	2 @ 1.5 2 @ 2	6 6.4	8.6	30.2	414/506	33	45	
ر	168	380-415/50/3	5.5	46	2 <u>@</u> 1.5	7	N.eV	26.2	342/456	\38.A\	W down	
	168	575/60/3	4.4	34	2 @ 1.5	4.8 5.4	8.6	26.2	518/633	28.4	40	
			0							B4 : :	Marrian	
	Unit	Voltage	Compi		Blower Motor	Blower Motor	VFD Input	Total	Min/Max	Minimum Circuit	Maximum Overcurrent	
	Size	J	RLA	LRA	HP	FLA	Current	Amps	Voltages	Amps	Protection (MOPD)	
					2 @ 1.5	13.8	21.6	73.6		76.9		
	192	208-230/60/3	13	127	2 @ 2	15.6		حما	187/253		125	H~
		, , ,	• • •	· ·	2 ⁴ @ 3 2 @ 1.5	22 6	27.8	74.8	, , ,	83.1		`
	192	460/60/3	5.5	52>	2 @ 1.5	6.8	8.6	30.6	414/506	32	45	
	102	100/00/0	0.0	02	2 @ 3	9.6	11.8	33.8	11 1/000	35.2		
	x x			λ λ	2 Q 1,5	ر د ⁵ د د	18/61	131		U324L		برال
)	192	380-415/50/3	5.6	43	2 @ 2	7	9.0		342/456	92.4	40	
					2@3	10.8	10.8	33.2		34.6	45	
					2 @ 1.5	4.8	7.2	28.2		29.4		
	192	575/60/3	4.9	33	2@2	5.4	7.2		518/633		45	
					2@3	7.8	10.2	31.2		31		1
			Compi	ressor	Blower	Blower				Minimum	Maximum	il
	Unit	Voltage	Ī		Motor	Motor	VFD Input	Total	Min/Max	Circuit	Overcurrent	
	Size		RLA	LRA	HP	FLA	Current	Amps	Voltages	Amps	Protection (MOPD)	
	240	208-230/60/3	16.7	127	2 @ 3	22	27.8	94.6	187/253	98.8	150	L
	240	200 27017013	40.4	YIN	2 @ 5	Y 35 Y	48	114.8	10112004	119.1	1 1 1130 1 1 1	`
>	240	460/60/3	7.2	62	2 @ 3	9.6	11.8	40.6	414/506	42.4	70	
١.					2@5	15.2	18.8	47.6		49.4	50	
ightharpoonup	240	380-415/50/3		51.5	2@3	10.4	10.8	38.8 46.8	342/456	40.6		ر لا
					2 @ 3	3.9	4.3	15.7		32.8		
	240	575/60/3	5.7	39	2 @ 5	6.1	8.8	20.2	518/633	37.2	45	
	Unit		Compi	ressor	Blower	Blower	VFD Input	Total	Min/Max	Minimum	Maximum	
	Size	Voltage	RLA	LRA	Motor HP	Motor FLA	Current	Amps	Voltages	Circuit Amps	Overcurrent Protection (MOPD)	
	288	208-230/60/3	1/9.3	170	2@3	22	27.8	105	187/253	109.8	~~178~~~	+
	-40	- + = 40, 40, 0	43.54	1	2 @ 5	35	48	125.2	12172001	139.9		
>	288	460/60/3	8.3	62	2@3	9.6 15.2	11.8 18.8	45 52	414/506	47.1 54.1	70	
	<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>			2 @ 5 \2 @ 3	15.2	18.8	52 \ \ 44		54.1 \ \ 46.1 \	<u>, , , ,</u> 60, , , ,	
	288	380-415/50/3	8.3	64	2 @ 5	17.2	18.8	52	342/456	54.1	70	$ec{}$
	000	F7F/00/0	0.0	50	2@3	7.8	8.6	35.8	F40/000	37.5	50	
	288	575/60/3	6.8	50	2 @ 5	12.2	18.8	46	518/633	47.7	60	
					. '							



VERTICAL M VINTAGE TWIN CIRCUIT

SUBMITTAL PACKAGE

084V_144V_M_LH

LEFT HAND

Mammoth Inc. certifies that it will furnish equipment in accordance with this drawing and specifications, and subject to its published warranty. Purchaser's approval of this drawing signifies that the equipment is acceptable under the provisions of the job specifications. Any change made hereon by any person whomever is subject to acceptance by Mammoth Inc. 13200 Pioneer Trail, Ste 150, Eden Prairie, MN 55347.

General Specifications

CABINET - Outer casing of G-60 galvanized steel.

REFRIGERANT CIRCUIT - Hermetically sealed 410A circuitry with reversing valve (HP only), TX metering device, and high/low side access valve.

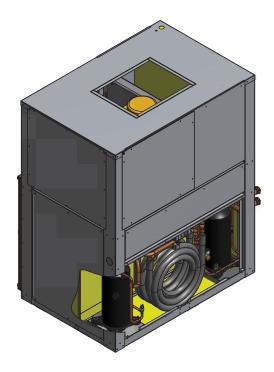
COMPRESSOR - Hermetic type with PSC or three phase motor, overload protection and mounted on neoprene isolators. AIR COIL - Seamless copper tubes and aluminum fins. HEAT EXCHANGER - Coaxial water to refrigerant with steel outer tube and convoluted copper inner tube.

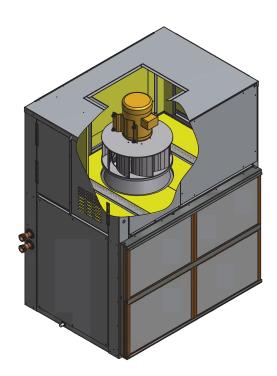
FILTER - 1-inch thick disposable

INSULATION - Thermally and acoustically optimized 3/4 inch thick, 1 1/2 lb. density faced.

FAN - Direct drive, dynamically balanced, airfoil shaped plug fan. FAN MOTOR - Premium efficiency TEAO with sealed, locked bearings, and overload protection.

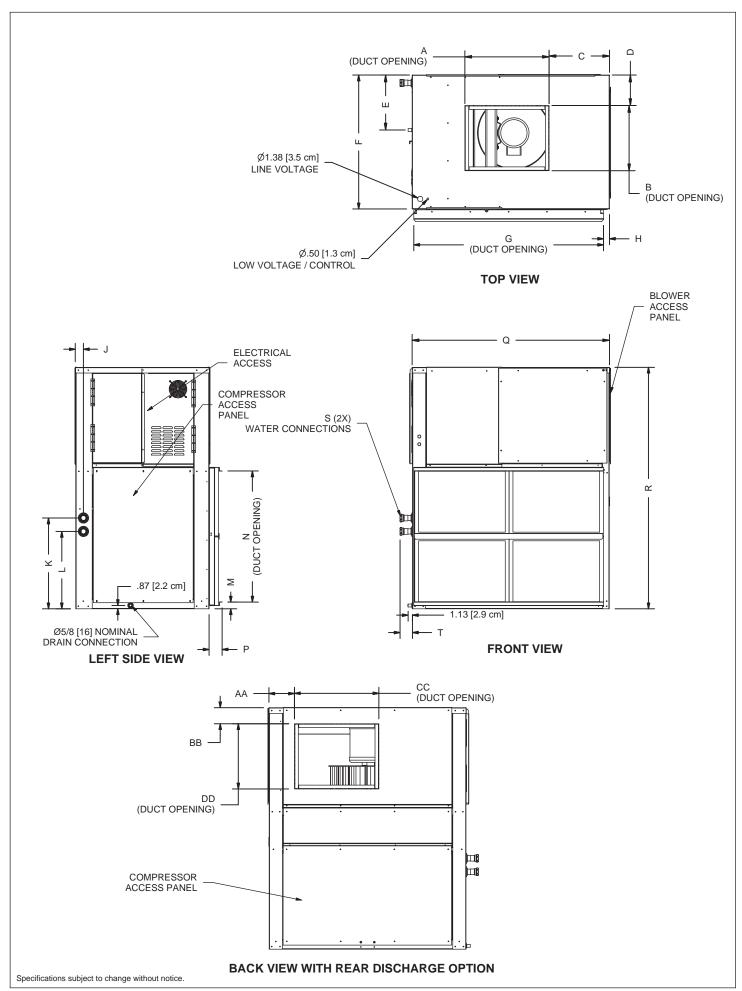
ELECTRICAL - 24-volt microprocessor control system with fan relay, compressor contactor, reversing valve coil (HP only). CONTROL - Standard CAV operation by field mounted, wall type thermostat. Optional VAV operation with MDDC.





Left hand water connections and electrical box location viewed looking into the return air duct connection.

084V_144V_M_LH SHEET 1 OF 4 REV A 5/31/2011



DIMENSIONS	UNIT SIZE							
INCH [CM]	084	096	120	144				
А	22 [55.9]	22 [55.9]	22 [55.9]	22 [55.9]				
В	17 [43.2]	17 [43.2]	17 [43.2]	17 [43.2]				
С	15.8 [40]	15.8 [40]	15.8 [40]	15.8 [40]				
D	8 [20.3]	8 [20.3]	8 [20.3]	8 [20.3]				
E	14.4 [36.6]	14.4 [36.6]	14.4 [36.6]	14.4 [36.6]				
F	35 [89]	35 [89]	35 [89]	35 [89]				
G	49.5 [125.7]	49.5 [125.7]	49.5 [125.7]	49.5 [125.7]				
Н	1.5 [3.8]	[3.8] 1.5 [3.8] 1.5 [3.8]		1.5 [3.8]				
J	2.1 [5.4]	2.1 [5.4]	2.1 [5.4]	2.1 [5.4]				
K	23.8 [60.5]	23.8 [60.5]	23.8 [60.5]	23.8 [60.5]				
L	20.3 [51.6]	20.3 [51.6]	20.3 [51.6]	20.3 [51.6]				
М	2.6 [6.6]	2.6 [6.6]	1.8 [4.6]	1.8 [4.6]				
N	24 [61]	24 [61]	34.2 [86.9]	34.2 [86.9]				
Р	3.8 [9.5]	3.8 [9.5]	3.8 [9.5]	3.8 [9.5]				
Q	51.5 [130.8]	51.5 [130.8]	51.5 [130.8]	51.5 [130.8]				
R	63 [160]	63 [160]	63 [160]	63 [160]				
S	1-1/4 [3.2]FNPT	1-1/4 [3.2]FNPT	1-1/4 [3.2]FNPT	1-1/4 [3.2]FNPT				
Т	2.4 [6]	2.4 [6]	2.4 [6]	2.4 [6]				
AA	6.6 [16.8]	6.6 [16.8]	6.6 [16.8]	6.6 [16.8]				
BB	4.3 [10.8]	4.3 [10.8]	4.3 [10.8]	4.3 [10.8]				
CC	22 [55.9]	22 [55.9]	22 [55.9]	22 [55.9]				
DD	17 [43.2]	17 [43.2]	17 [43.2]	17 [43.2]				

FILTER SIZE & QTY'S.									
UNIT SIZE 084 096 120 144									
FILTER SIZE 25 X 25 X 1 (2) 16 x 25 x 1 (3) 18 x 25 x 1 (4) 18 x 25 x 1 (4)									

WEIGHTS	GHTS UNIT SIZE						
Lbs [Kg]	084	096	120	144			
SHIPPING	950 [431]	990 [450]	1060 [481]	1090 [495]			

						ELECT	RICAL DA	ATA			
	Unit Size	Voltage	Comp	ressor	Blower Motor HP	Blower Motor FLA	VFD Input Current	Total Amps	Min/Max Voltages	Minimum Grauit Amps	Maximum Overcurrent Protection (MOPD)
	√ 08 ∉	208,230/60/3		101	1.5	6.9	10.8	35.2	187/253	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~ 5 6~~~
	084	460/60/3	5.4	44	1.5	3 3.4	4.3	15.1	414/506	16.5	25
ر	984	380-4115/50/3	\5.8\	46	1.5	3.5	U4.3U	\13 <u>\</u>	342/456	V16.7V	<u> </u>
	084	575/60/3	4.4	34	1.5 2	2.4 2.7	4.3	13.1	518/633	14.2	25
	Unit	Voltage	Comp		Blower	Blower	VFD Input	Total	Min/Max	Minimum	Maximum Overcurrent
	Size	_	RLA	LRA	Motor HP 1.5	Motor FLA 6.9	Current	Amps	Voltages	Circuit Amps	Protection (MOPD)
	096	208-230/60/3	13	127	2	7.8	10.8	36.8	187/253	40.1	60
<	~~				787	111 ×	13.9	39.9		43.2	
	096	460/60/3	5.5 -	52>	1.5 2	3 3.4	4.3	15.3	414/506	16.7	25
					3	4.8	5.9	16.9		18.3	
	人人	للللا	ىرى	ببا	1.5	2.5	للعلا	15.5	ىب	V16.9V	m
1	096	380-415/50/3	5.6	43	2	3.5			342/456		25
					3	5.4	5.9	17.1		18.5	
	096	575/60/3	4.9	33	1.5 2	2.4	4.3	13.1	518/633	15.3	25
	090	373/60/3	4.9	33	3	3.9	4.3	13.1	310/033	15.5	25
					3	3.8					
	Unit		Comp	ressor	Blower	Blower	VFD Input	Total	Min/Max	Minimum	Maximum Overcurrent
	Size	Voltage	RLA	LRA	Motor HP	Motor FLA	Current	Amps	Voltages		Protection (MOPD)
_	130	208(230/60/3	(107)	197	3	11	13.9	47.3		51.5	70
	√120	200723W 0W 3	₹16.7 √	127	5	17.5	24	57.4	187(253	61.2	4 4 4 8 ⁰ 4 4 4
	120	460/60/3	7.2	62	3	4.8	5.9	20.3	414/506	22.1	35
	120	100/00/0		02	5	7.6	9.4	23.8	11 1/000	25.6	
۷	1201	380-415/50/8	22	51.51	ىگىر	5.4	5.9	19,9	342/456	21.7	
					5	8.6	9.4	23.4		25.2	35
	120	575/60/3	5.7	39	<u>3</u> 5	3.9 6.1	4.3 8.8	15.7 20.2	518/633	17.1 21.6	25 30
					3	0.1	0.0	20.2		21.0	30
	Unit		Comp	ressor	Blower	Blower	VFD Input	Total	Min/Max	Minimum	Maximum Overcurrent
	Size	Voltage	RLA	LRA	Motor HP	Motor FLA	Current	Amps	Voltages		Protection (MOPD)
		000 000/00/0			3	11	13.9	52.5		57.3	80
J	144	208/230/60/3	(18.3)	179	$\sqrt{5}$	17.5	24	62.6	187/253	67.4	11 80 1 1
	144	460/60/3	8.3	62	3	4.8	5.9	22.5	414/506	24.6	35
		400/00/3	0.3	UZ.	. 5	7.6	9.4	26	414/500	28.1	4
	144		<u> </u>		\wedge		5.9	22.5		24.6	35
		380-415/50/3	× 2 2	64	\sim_3	5.4	5.9	22.3	342/456	20	
	144	380-415/50/3	8.3	64	5	5.4 8.6	9.4	26	342/456	28.1	40
		380-415/50/3 575/60/3	8.3 6.8	64 50					342/456 518/633		

084V_144V_M_LH SHEET 4 OF 4 REV A 5/31/2011