

SUBMITTAL DATA



MODEL NO VHB504A HYDRONIC AIR HANDLER

JOB NAME: **LOCATION:** **DATE:**
PURCHASER: **ENGINEER:**
SUBMITTED TO: **FOR:** **REVIEW ()** **APPROVAL ()**

- CHOICE OF INDEPENDENT HEATING (8 SPEEDS) & INDEPENDENT COOLING (8 SPEEDS) ADJUSTED IN 100 CFM INCREMENTS
- BUILT-IN DEHUMIDIFICATION OPTION
- ZONING CAPABILITIES
- INTELLIGENT DHW PRIORITY
- HOT WATER COIL FREEZE PROTECTION BUILT-IN
- TWO STAGE COOLING
- PREMIUM HOT WATER COIL
- INSULATED CABINET
- 24-HOUR PUMP CIRCULATION TIMER
- CONSTANT CFM ECM BLOWER WITH CONTINUOUS LOW SPEED FAN
- WARM UP & COOL DOWN OF HEATING COIL ON EVERY CALL FOR HEAT (P911)
- SUITABLE FOR LOW VELOCITY OR MID VELOCITY APPLICATIONS
- DYNAMIC CONTROL STRATEGY
- AHRI CERTIFIED CONDENSOR AND EVAPORATOR AVAILABLE

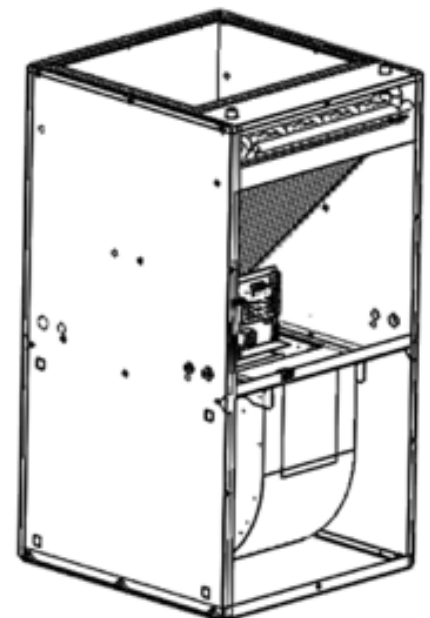
SPECIFICATION	VALUE
Heating Capacities	50,000 BTU/h @ 3GPM @ 140F
Cooling Capacities	1 to 4 tons up to 0.7" wc 1 to 3 tons up to 1.4" wc
Airflow	1600 CFM up to 0.7" wc 1200 CFM up to 1.4" wc
Dimensions	21 1/8" W x 22" D x 39 3/4" H
Power	120V-60-1 6A 15A fuse
Blower Motor	3/4 HP – ECM fully variable
Control	Modulating, 1 and 2 stage
Compatibilities	Alizé and any type of A/C-HP Smart Duct w/ Smart Zoning System Any 1-2 stage thermostat and Dettson's communicating thermostat for Smart Duct System
Construction	Multiposition Cabinet: 22 Ga powder coated steel Inner panels 22 Ga galvanized steel Insulation 1/2" inside blower compartment and door
Certification	CSA (US & Canada) CSA-C22.2 No.236-05, 3rd Edition, Feb.2005 - Heating and Cooling Equipment UL 1995, 3rd Edition, Feb.2005 - Heating and Cooling Equipment NSF 372: Drinking Water Systems Components – Lead Content

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Heating Performance (BTU/h)

Entering Water Temperature	Flow rate (GPM)	Heat Fan Ratio - (Air Flow)						Coil Pressure Loss (PSI)
		50% (800 CFM)	Temp Differential (F)	75% (1200 CFM)	Temp Differential (F)	100% (1600 CFM)	Temp Differential (F)	
120 F	2	23 069	27	27 475	21	35 424	21	1.42
	3	26 006	30	33 566	26	40 262	23	2.36
	4	27 994	32	37 454	29	43 891	25	4.38
140 F	2	33 696	39	41 990	32	47 520	28	1.41
	3	37 325	43	48 341	37	56 506	33	2.34
	4	38 362	44	54 043	42	62 726	36	4.38
160 F	2	43 114	50	54 821	42	62 554	36	1.41
	3	47 952	56	62 078	48	73 094	42	2.34
	4	51 235	59	66 226	51	80 006	46	4.38
180 F	2	52 963	61	66 485	51	75 859	44	1.41
	3	60 048	70	78 019	60	91 757	53	2.34
	4	63 158	73	84 888	66	100 915	58	4.38

Entering air at 70F



Features	V-series Hydromaxx	Notes
CFM Increments 720-1600 Heating & 300-500 cfm per ton Cooling speeds, adjust in 100 CFM increments	Yes	1
Switch 24V to Power Accessories	avail @ term	
Built in Dehumidification Option	Yes	2
Zoning Option	Yes	3,11
Intelligent DHW Priority	Yes	4
Hot Water Coil Freeze Protection Built-in	optional	
Two Stage Cooling	Yes	5
2 Stage or single Stage Heating	Yes	6
Premium Hot Water Coil	Yes	
Insulated Cabinet	Yes	
Standard Pump Included	yes	
Can operate STD Pump or EC	Yes	7,8
24 Hour Pump Circulation Timer	Yes	
Multi-Position	Yes	
Constant CFM ECM Blower with Continuous Low Speed Fan	Yes	9,10
Warm Up & Cool Down of Heating Coil on Every Call for Heat	Yes	
Suitable for Low Velocity or Mid Velocity Applications	Yes	
Constant Pressure Technology	Yes	1
Warm Up & Cool Down of Heating Coil on Every Call for Heat	Yes	

1. Choose the required CFM independently for heating & cooling modes .
2. Removes humidity faster in cooling modes, resulting in increased comfort.
3. Factory supplied option; field installed up to 4 zones.
4. Unit monitors length of DHW calls and takes action to maximize comfort when flow switch is installed.
5. 2 stage cooling, can operate more efficient A/C units.
6. Can operate in Full modulation, 3 stage or single stage heating mode.
7. Allows for the correct sizing of pump for the designed system.
8. Allows for choice of STD AC pump or ECM pump.
9. Motor automatically ramps up to provide Constant CFM as filters get dirty.
10. Continuous fan can operate at selected heat cfm or 1/2 of selected heat CFM.
11. Automatically adjusts air flow to compensate for opening and closing of the vents. Reduces noise & energy.

