### **Engineering Submittal and Wall Sleeve Specification Worksheet VPAC/VPHP Single Package Vertical** VPAC/VPHP Air Conditioner/Heat Pump 30,000-36,000 Btuh

Rev. 1.3 [11/07]

Job Name:	Location:	
Customer:		
Project Engineer:		
Project Architect:		
General Contractor:		
Submitted By:	Date:	For: Reference [ ] Approval [ ]

# ENGINEERING SUBMITTAL



### STANDARD FEATURES

The standard VPAC/VPHP unit comes equipped with the following:

- Cooling or heat pump chassis w/high efficiency scroll compressor
- Custom wall sleeve
- Anodized aluminum outdoor louver for field installation (optional colors available)
- Front mounted control box
- Manual fresh air damper
- Microprocessor control board
- Refrigerant hot gas bypass for operation in lower ambient conditions (cooling cycle only)
- Internal Drain Connection
- Universal control board: can be used in straight cool electric, hydronic heat, or cooling/heat pump applications.
- Fan purge: fan remains on for 60 seconds after heat/cool call is dropped ("auto" mode only)
- Anti-short cycle compressor protection
- Random start timer: prevents multiple units from simultaneous start-ups (straight cool only)
- Freeze protection: prevents evaporator freeze ups
- Low ambient lockout
- Test operation: all timers are eliminated to allow ease of testing after installation (straight cool only)
- Compatible with fossil fuel, electric heat, mercury or electronic thermostats

If other than the standard features listed above are needed, customize your application by choosing from the following options.

OPTIONS	Х	OPTIONS	Х
Supplemental Electric Heat 5, 7.5, 10kw (15kw for 36,000 Btuh)		Return Air Access Panel W/Disposable Air Filter	
265/277V (Contact Factory for Availability)		Painted Condenser Louver	
200/277 V (Contact Factory for Availability)		Remote Thermostat (Mercury Bulb or Digital)	

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### VPAC/VPHP ORDER SPECIFICATIONS FOR ENGINEERING PURPOSES

This is very important information to make certain that equipment supplied is properly designed for the application for which it was intended!!

1. TYPE OF CONSTRUCTION: New Construction Replacement Replacement, what is the current model being replaced?	
Manufacturer Model #	_
2. TYPE OF APPLICATION: Hotel/Motel Office Suites Condo Apartments Other (Please explain)	
How many rooms are being conditioned by one unit?	
3. ELECTRIC HEAT: Output or kw: Current Circuit Breaker Used: amps	
4. FIELD SUPPLY VOLTAGE: 115 208/230 265/277	
5. IS THERE AN INTERNAL DRAIN SYSTEM FOR CONDENSATE REMOVAL? Yes No No	
If Yes, will the customer need an overflow stub in the base or to extend the drain hose?	
Location of drain stub: Front Left Side Right Side	
6. WHAT ARE THE PLANNED DIMENSIONS OF THE UNIT ENCLOSURE? L W H (NOTE: Unit enclosure must meet minimum clearance specifications.)	_
7. IS ACCESS/RETURN AIR PANEL TO BE SUPPLIED? Yes No Attach sketch or photo if possible.  If not, what will be used?  What is return air opening size? L W	
What is free area of existing return air opening?	
8. WHAT CONTROL ACCESS IS REQUIRED WHEN LOOKING AT FRONT OF UNIT (Evap. Coil Side)?  Left Side Ride Front Front	
9. WHAT IS DESIGNED EXTERNAL STATIC PRESSURE (E.S.P.)?	
If not known, describe the supply air configuration.	
Rectangular Duct L W	
Circular Duct Length Duct Length	
How many supply air diffusers?	
10. CONDENSER SIDE GRILL SUPPLIED BY EMI? Yes No If No, please sketch a drawing or send a photo with size, louver angles and location, etc.  (NOTE: Standard louver color is annodized aluminum. If special color is requested, please note there is an additional charge for special color louver.)	's.)

### **Engineering Submittal and Wall Sleeve Specification Worksheet** VPAC/VPHP Single Package Vertical VPAC/VPHP

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Important Note: You must circle or mark the specifications for: • Capacity • Straight Cool or Heat Pump • Voltage • Electric Heat or Hydronic Heat

	Bt	Btuh Efficie		ency Electric Heat					Hydrocoil Performance						Max. HACR Breaker			Dimensions						
lodel	Model Cooling Heating (VPHP)	/PHP)		HP)	Size		S	НТ А	mps		du	H <sub>2</sub> O gpm (°F)	f H,O	ft H <sub>2</sub> 0	ft H <sub>2</sub> O	r Temp	ric Heat	With Electric Heat		in.)	(in.)	Depti	Depth (in.)	
2		E	COP (VPHP)	Heater Size	Volts	Watts	Circuit #1	Circuit #2	CFM	H <sub>2</sub> O Temp	Inlet H <sub>2</sub> O g	Btuh	Head Loss ft H <sub>2</sub> O	Outlet Air Temp (°F)	Outlet Water Temp (°F)	W/out Electric Heat	Circuit #1	Circuit #2	Width (in.)	Height (in.)	Heat Pump	Stright Cool	Weight (lbs.)	
						208	4,089	19.7	-	1,000	160°	1	2,0644	.1	87°	118°	35*	35	$\Box$		İ			
					5kw	200	→,009	19.7		1,000	160°	2	3,2092	.4	97°	127°	35*	35	-					
	30 29,400 27,400 9.0 2	400	9.0 2.6		230	5,000	21.7	_	1,000	160°	3	3,6613	.8	101°	135°	35*	35	-	28	52	21.4	24.5	245	
30						•			1,000	160°	4	3,9419	1.5	104°	140°	35*	35	-						
30		27,400	3.0	2.0	7.5kw	208	6,134	29.5		1,000	180°	1	2,6534	.1	92°	126°	35*	45	-	-~	32	21.4	24.5	245
						230	7,500	32.6	-	1,000	180°	2	3,9461	.4	104°	140°	35*	45	-					
				10kw	208	8,178 3	39.3		1,000	180°	3	4,4950	.8	109°	150°	35*	55	-						
			TOKW	230	10,000	43.5	-	1,000	180°	5.2	5,0980	2.4	114°	160°	35*	60	-							
			9.1	9.1 2.6	5kw	208	4,089	19.7	-	1,200	160°	1	2,1201	.1	84°	117°	40	40	-					
						230	5,000	21.7	-	1,200	160°	2	3,3645	.4	94°	126°	40	40	-					
					7 Flour	208	6,134	29.5	-	1,200	160°	3	3,8695	.8	97°	134°	40	45	-					
					7.5kw	230	7,500	32.6	-	1,200	160°	4.3	4,2668	1.7	100°	140°	40	45	-			<b>.</b>		l
36	34,400	400   32,800			10kw	208	8,178	39.3	-	1,200	180°	1	2,7277	.1	89°	124°	40	55	-	28	56	21.4	28.0	285
						230	10,000	43.5	-	1,200	180°	2	4,1390	.4	99°	138°	40	60						
						208	12,268	19.7	39.3	1,200	180°	3	4,7531	.8	104°	148°	40*	40	50	ĺ				
			15kw	230	15,000	21.7	43.5	1,200	180°	5.2	5,5245	2.8	110°	160°	40*	40	55							

<sup>\*</sup> VP-30 Requires 35 amp breaker for compressor circuit

\*VP-36 Requires 40 amp breaker for compressor (circuit #1)

Performance data is subject to change without notice. For the most current unit/system performance data, please refer to the Environmaster International listing of certified products in the ARI directory, at www.aridirectory.org.

### Cross Section of a Typical Wall −½" x ½" Foam Gasket Overall Wall ←Thickness → Exterior Wall Outdoor Louver Interior Wall -Wall Sleeve Drip edge will Lag Holes extend outside (4 Each Side) exterior wall when installed to guide condensate away from building-Wall Sleeve Assembly

## TO DETERMINE WALL SLEEVE DEPTH, USE THE FOLLOWING

Wall Sleeve Depth = Overall Wall Thickness - 1.25" (Louver Depth)

**EXAMPLE:** If your overall wall thickness is 10" then your wall sleeve depth would be 8.75" (10" - 1.25" = 8.75")

Fill In Your Information Here:

- 1.25" = Overall Wall Thickness Wall Sleeve Depth Company Name Authorized Signature Date Date **EMI Signature** 



Cross Section of a Typical Wall





Tested/Rated In Accordance With ARI Standard 390

> Manufactured by: **ENVIROMASTER INTERNATIONAL LLC**