

VPAC/PHP

## VPAC/PHP 30-36 Single Package Vertical Air Conditioner and Heat Pump

P/N# 240004383 Rev. 1.1 [08/05]



Nominal Cooling Capacity:  
30,000 - 36,000 Btuh

### PRODUCT DESCRIPTION

The VPAC/PHP 30-36 single package vertical air conditioner (SPVAC) and heat pump (SPVHP) creates new options in layout and space utilization. The VPAC/PHP 30-36 offers low cost operation and quiet, comfortable air distribution, especially when used in multi-room suites, apartments, healthcare facilities, and homes.

Framed into a concealed closet enclosure for low operating sound levels, the VPAC/PHP 30-36's vertical discharge vent allows ducting to the top of the room(s) for superior air circulation and distribution. Multiple air supply grilles can distribute air when used with a soffit and intake grilles can be located on the sides of the enclosure.

The VPAC/PHP 30-36 can be applied in a ducted return air application or can remain non-ducted as delivered. If ducted, the closet enclosure does not require minimum clearances other than what is recommended for adequate service access. If non-ducted, minimum clearance options must be adhered to as dictated for optimal performance and sound. See note on minimum clearance dimensions on the "Specifications and Performance" page of this document.

The VPAC/PHP 30-36 offers an economic benefit when used in a multi-room suite by supplying conditioned air to more than one room without the need to install another PTAC/PTHP. This is also a design advantage since the second room does not need an exterior wall for a second unit.

The VPHP 30-36 heat pump is intended to be a limited range heat pump, which means utilizing a supplemented heat option is recommended since heat pump operation will cease at approximately 40°F outdoor temperature. Consult factory for availability of a full range defrosting heat pump version.

Each system is supplied with a ready-to-install wall sleeve and outdoor louver. The cabinet is constructed with 20 gauge galvanized steel with a G-90U corrosion resistant rating and the insulated top discharge evaporator compartment provides quiet ducted, conditioned air delivery to other room location(s).

The VPAC/PHP 30-36 is backed by EMI and ECR International and is tested and rated in accordance with ARI standard 390 and UL-1995. Due to ongoing product development, product designs and specifications may change without notice. Please contact the factory for more information.

### FEATURES AND OPTIONS

▲▼ **Condensate Removal** – The VPAC/PHP 30-36 requires an internal drain system due to its unique draw-thru condenser design. Condenser side drain stub(s) are integral to the chassis and are very easy to connect a drain hose to.

▲▼ **Air Systems** – Motors are thermally protected PSC type. Air stream surfaces are insulated with 1/4 inch fiberglass or 1/8 inch volara. The evaporator fan is a forward curved type directly mounted to the motor shaft. The condenser propeller utilizes a draw-thru design for improved efficiency.

#### ▲▼ **Standard Controls And Components:**

- Cooling or heat pump chassis w/high efficiency scroll or reciprocating type 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
  - 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: prevents compressor operation in cold outdoor temperatures.
  - 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
  - Refrigerant hot gas bypass for operation in low outdoor ambient conditions (cooling cycle only)

#### ▲▼ **Optional Controls And Components:**

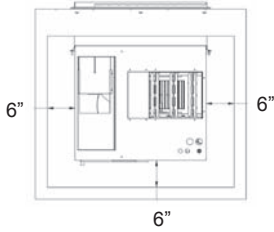
- Supplemental electric heat
- 265/277V (contact factory for availability)
- Painted condenser louver
- Remote wall thermostat
- Return air access panel (w/disposable return air filters)

## SPECIFICATIONS AND PERFORMANCE

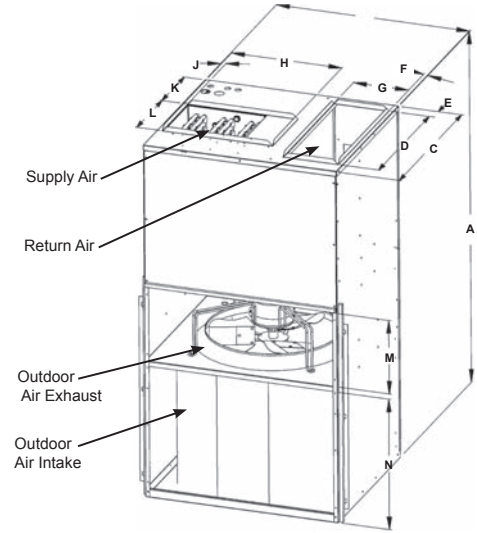
**IMPORTANT:** Due to ongoing product development, designs, specifications, and performance are subject to change without notice. Please consult the factory for further information.

Rough Wall Sleeve Opening		
Unit Size	Width	Height
30	28-9/16"	32-3/8"
36	28-9/16"	36-1/4"

For designed performance, sound levels, and service, maintain a minimum of 6" on both sides and front for **non-ducted return air applications only**.



	Model	
	30	36
A	52"	56"
B	28"	28"
C	24 1/2"	28"
D	20"	20"
E	2 1/4"	4"
F	5/8"	5/8"
G	8"	8"
H	16"	16"
J	3/4"	3/4"
K	7 1/4"	9"
L	10"	10"
M	11"	10 1/4"
N	22"	17 3/4"



Ducted return air applications only require minimal spacing for service requirements.

Consult ECR Engineering if these minimums can not be met. Depending on the application and return air introduction, some reconfiguration is likely to be accommodated.

VPAC/VPHP 30-36 Performance Data									
Model	Cooling Btu	Sensible Heat	EER	SEER	Heat Pump	COP	External Static		
							.10	.20	.30
VPAC30	30,000	0.68	9.2	9.7	N/A	N/A	1,050	990	930
VPAC36	36,000	0.70	9.8	10.0	N/A	N/A	1,350	1,290	1,210
VPHP30	29,800	0.73	8.7	9.7	27,600	2.4	1,050	990	930
VPHP36	35,600	0.74	9.0	9.7	33,500	2.7	1,350	1,290	1,210

VPAC 30-36 COOLING ONLY ELECTRICAL SPECIFICATIONS											
Model Number	VOLTS/HZ/PH	Condenser Fan		Compressor		Evap Fan		Total Amps	Min Voltage	M.C.A.	Max HACR Breaker
		Amps	HP	RLA	LRA	Amps	PH				
30	208/230/60/1	1.7	0.25	14.0	73	3	0.5	18.7	197	22.3	35
36	208/230/60/1	1.7	0.25	16.3	88	3	0.5	21.0	197	25.1	40

VPAC 30-36 HEAT PUMP ELECTRICAL SPECIFICATIONS											
Model Number	VOLTS/HZ/PH	Condenser Fan		Compressor		Evap Fan		Total Amps	Min Voltage	M.C.A.	Max HACR Breaker
		Amps	HP	RLA	LRA	Amps	PH				
30	208/230/60/1	1.7	0.25	14.0	73	3	0.5	18.7	197	22.3	35
36	208/230/60/1	1.7	0.25	16.3	100	3	0.5	21.0	197	25.1	40

VPAC/HP 30-36 OPTIONAL ELECTRIC HEAT SPECIFICATIONS											
Heater No.	Voltage	Watts	HT. Amps Total	Circuit #1				Circuit #2			
				HT. Amps	Total	MCA	Max Brkr	HT. Amps	Total	MCA	Max Brkr
5	208	4,089	22.7	19.7	22.7	28.4	40*	-	-	-	-
	230	5,000	24.7	21.7	24.7	31.0	40*	-	-	-	-
7.5	208	6,134	32.5	29.5	32.5	40.7	45	-	-	-	-
	230	7,500	35.6	32.6	35.6	44.5	45	-	-	-	-
10	208	8,178	42.3	39.3	42.3	52.9	55	-	-	-	-
	230	10,000	46.5	43.5	46.5	58.1	60	-	-	-	-
15 (VPAC36 only)	208	12,268	62.0	19.7	22.7	28.4	40**	39.3	42.3	52.9	55
	230	15,000	68.2	21.7	24.7	31.0	40**	43.5	46.5	58.1	60

\* VP-30 Requires 35 amp breaker for compressor circuit \*\* VP-36 Requires 40 amp breaker for compressor (circuit #1)



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