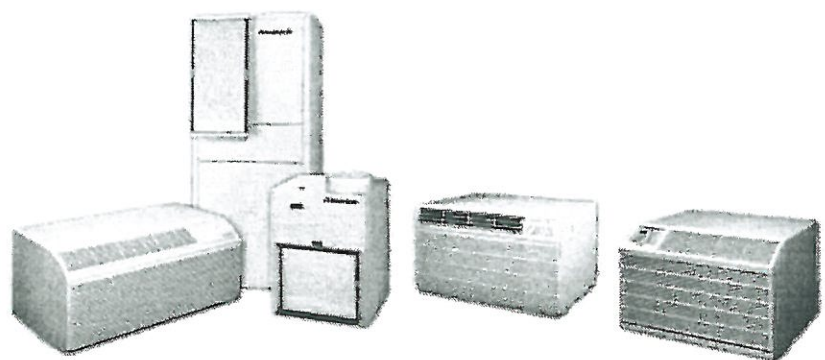


MODEL IDENTIFICATION GUIDE

<b>MODEL NUMBER</b>		V	E	A	09	K	50	RT	A
<b>SERIES</b> V=Vertical Series		<b>ENGINEERING CODE</b>							
E=Cooling with or without electric heat H=Heat Pump		<b>OPTIONS</b> RT = Standard Remote Operation SP = Seacoast Protected							
<b>DESIGN SERIES</b> A = 32" /47" Cabinet B = 68" Cabinet		<b>ELECTRIC HEATER SIZE</b>							
<b>NOMINAL CAPACITY</b>		<b>A Series (Btu/h)</b>				<b>B Series (Btu/h)</b>			
		09 = 9,000	12 = 12,000	18 = 18,000	24 = 24,000	18 = 18,000	24 = 24,000	30 = 30,000	36 = 36,000
						42 = 42,000	49 = 49,000	60 = 60,000	
<b>VOLTAGE</b> K = 208/230V-1Ph-60Hz						<b>A Series</b> 00 = No electric heat 25 = 2.5 KW 34 = 3.4 KW 50 = 5.0 KW 75 = 7.5 KW* 10 = 10.0 KW*			
						<b>B Series</b> 00 = No electric heat 05 = 5.0 KW 07 = 7.5 KW 10 = 10.0 KW 15 = 15.0 KW 20 = 20.0 KW 25 = 25.0 KW			
						Refer to electrical data chart for heater/unit compatibility * 24000 BTUH only			

VEA 18K



**Multiple solutions.**  
**One trusted name.**



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Due to continuing research in new energy-saving technology, specifications are subject to change without notice.

# CHASSIS SPECIFICATIONS

## VERT-I-PAK® A-SERIES

VEA/VHA9K-24K								
	VEA09K	VEA12K	VEA18K	VEA24K	VHA09K	VHA12K	VHA18K	VHA24K
<b>COOLING DATA</b>								
Cooling Btu/h	9500/9300	11800/11500	17500/17300	24000	9500/9300	11800/11500	17500/17300	23500
Cooling Power (W)	880	1093	1882	2526	905	1124	1882	2474
EER	10.8	10.8	9.3	9.5	10.5	10.5	9.3	9.5
Sensible Heat Ratio	0.74	0.72	0.70	0.70	0.74	0.72	0.70	0.70
<b>HEAT PUMP DATA</b>								
Heating Btu/h	N/A	N/A	N/A	N/A	8500/8300	10600/10400	17000/16800	22500
COP @ 47°F	N/A	N/A	N/A	N/A	3.0	3.2	3.0	3
Heating Power (W)	N/A	N/A	N/A	N/A	830	971	1560	2200
Heating Current (A)	N/A	N/A	N/A	N/A	4.4/4.9	5.5/6.1	7.5/8.2	11.4
<b>ELECTRICAL DATA</b>								
Voltage (1 Phase, 60 Hz)	230/208	230/208	230/208	230/208	230/208	230/208	230/208	230/208
Volt Range	253-198	253-198	253-198	253-198	253-198	253-198	253-198	253-198
Cooling Current (A)	4.1/4.3	4.9/5.3	8.4/9.0	11.2/12.4	4.2/4.4	5.0/5.5	8.4/9.2	11.2/12.4
Amps L.R.	21	21	42	68	21	21	42	68
Amps F.L.	3.7	4.5	7.5	10.2	3.7	4.5	7.5	10.2
Indoor Motor (HP)	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
Indoor Motor (A)	1.2	1.2	1.2	2	1.2	1.2	1.2	2
Outdoor Motor (HP)	N/A	N/A	N/A	1/4	N/A	N/A	N/A	1/4
Outdoor Motor (A)	N/A	N/A	N/A	2	N/A	N/A	N/A	2
<b>AIR FLOW DATA</b>								
Indoor CFM*	300	350	475	750	300	375	475	750
Vent CFM	60	60	60	80	60	60	60	80
Max. ESP	.3"	.3"	.3"	.3"	.3"	.3"	.3"	.3"
<b>PHYSICAL DATA</b>								
Dimensions (W x D x H)	23 x 23 x 32	23 x 23 x 32	23 x 23 x 32	23 x 23 x 47	23 x 23 x 32	23 x 23 x 32	23 x 23 x 32	23 x 23 x 47
Net Weight (Lbs)	114	124	144	167	114	125	144	167
Shipping Weight (Lbs)	125	135	155	180	125	135	155	180
R-22 Charge	25	29	42	68.5	23.5	27	42	63.5

\* Normal Value Wet Coil @ .1" ESP.

## ELECTRIC HEAT DATA

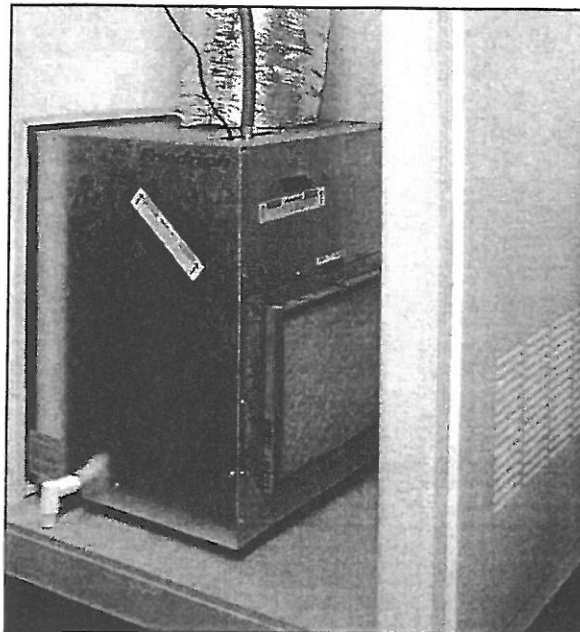
VEA/VHA09,12								
	VE/VHA09			VE/VHA12				
Heater Watts	2500/2050	3400/2780	5000/4090	2500/2050	3400/2780	5000/4090		
Voltage	230/208			230/208				
Heating Btu/h	8500/7000	11600/9500	17000/13900	8500/7000	11600/9500	17000/13900		
Heating Current (Amps)	10.6/9.3	14.5/12.5	20.9/18.2	10.6/9.3	14.5/12.5	20.9/18.2		
Minimum Circuit Ampacity	15	19.9	27.9	15	19.9	27.9		
Branch Circuit Fuse (Amps)	15	20	30	15	20	30		
Basic Heater Size	2.5 Kw	3.4 Kw	5.0 Kw	2.5 Kw	3.4 Kw	5.0 Kw		
VEA/VHA18,24								
	VE/VHA18			VE/VHA24				
Heater Watts	2500/2050	3400/2780	5000/4090	2500/2050	3400/2780	5000/4090	7500/6135	10000/8180
Voltage	230/208			230/208				
Heating Btu/h	8500/7000	11600/9500	17000/13900	8500/7000	11600/9500	17000/13900	25598/20939	34130/27918
Heating Current (Amps)	10.6/9.3	14.5/12.5	20.9/18.2	10.9/9.9	14.8/13.4	21.7/19.7	32.6/29.5	43.5/39.3
Minimum Circuit Ampacity	15	19.9	27.9	17.2/15.9	22.1/20.3	30.7/28.1	44.3/40.4	57.9/52.7
Branch Circuit Fuse (Amps)	15	20	30	25/25	25/25	35/30	45/45	60/60
Basic Heater Size	2.5 Kw	3.4 Kw	5.0 Kw	2.5 Kw	3.4 Kw	5.0 Kw	7.5 Kw	10.0 Kw

## APPLICATION AND DIMENSIONS

### VERT-I-PAK® A-SERIES

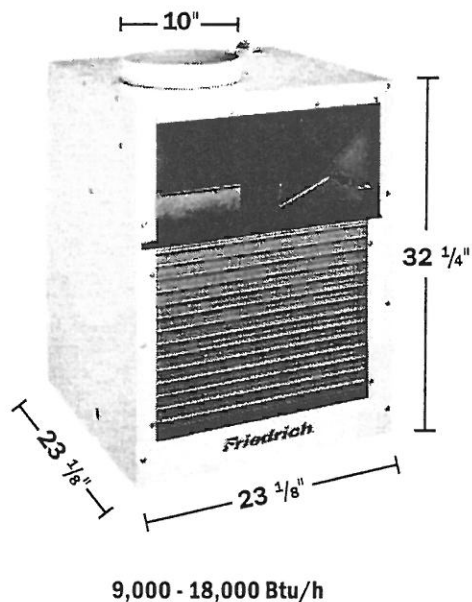
#### Application and Accessories

- Chassis is to be installed against an exterior wall. Wall cutout dimensions will be  $24\frac{5}{8}$ " w x  $30\frac{7}{8}$ " h.
- The use of a Friedrich wall plenum is required for installation. Plenum opening is  $\frac{3}{4}$ " above the floor. (VPAWP1-8 / VPAWP1-14).
- Return air is accommodated with a return air filter attached to the unit or through the use of a return air filter grille. (VPRG4 / VPRG2).
- Exterior louvers are available in anodized aluminum (VPAL2) or in custom painted colors (VPSC2).
- Unit is controlled by a remote wall-mounted thermostat. Friedrich model RT2 digital thermostat is recommended.



#### Typical Closet Arrangement

Cutaway of a typical closet shown with Vert-I-Pak® chassis installed in the wall sleeve. The unit has the thermostat, field wiring, internal drain and flex duct attached. VPRG4 return air filter holder and access panel are shown to the right.



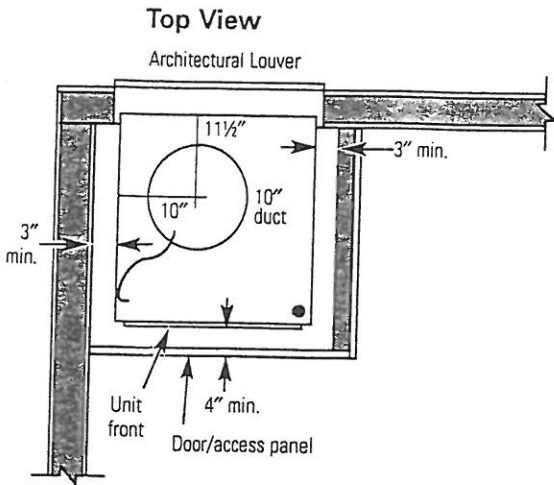
#### Installation Guidelines

- Closet should allow for a minimum of three inches on three sides of the unit for return air, drain connections and changeouts.
- Minimum recommended access door rough-in measurements 27" wide by  $55\frac{3}{4}$ " high (for VPRG4).
- Friedrich recommends the use of a platform between 24" and 36" above the floor, for ease of installation and serviceability.
- Duct outlet designed for external static pressures up to .30" on 9,000 – 18,000 Btu/h models, and .40" on 24,000 Btu/h models.
- New wall plenum allows chassis to be inserted  $2\frac{3}{8}$ " into plenum, thereby minimizing closet dimensions.

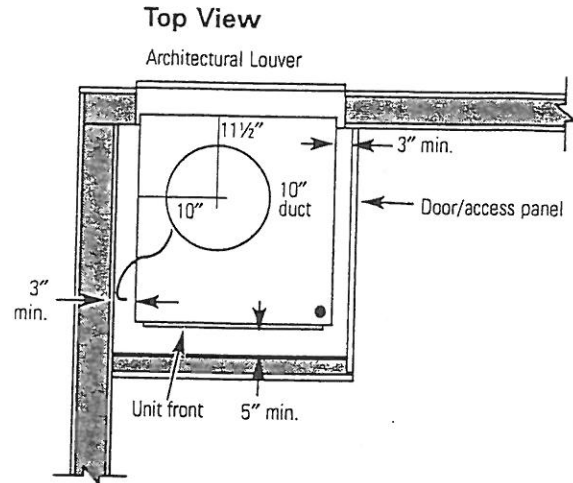
# Installation Instructions

## TYPICAL UTILITY CLOSET AND DIMENSIONS (FOR REFERENCE ONLY)

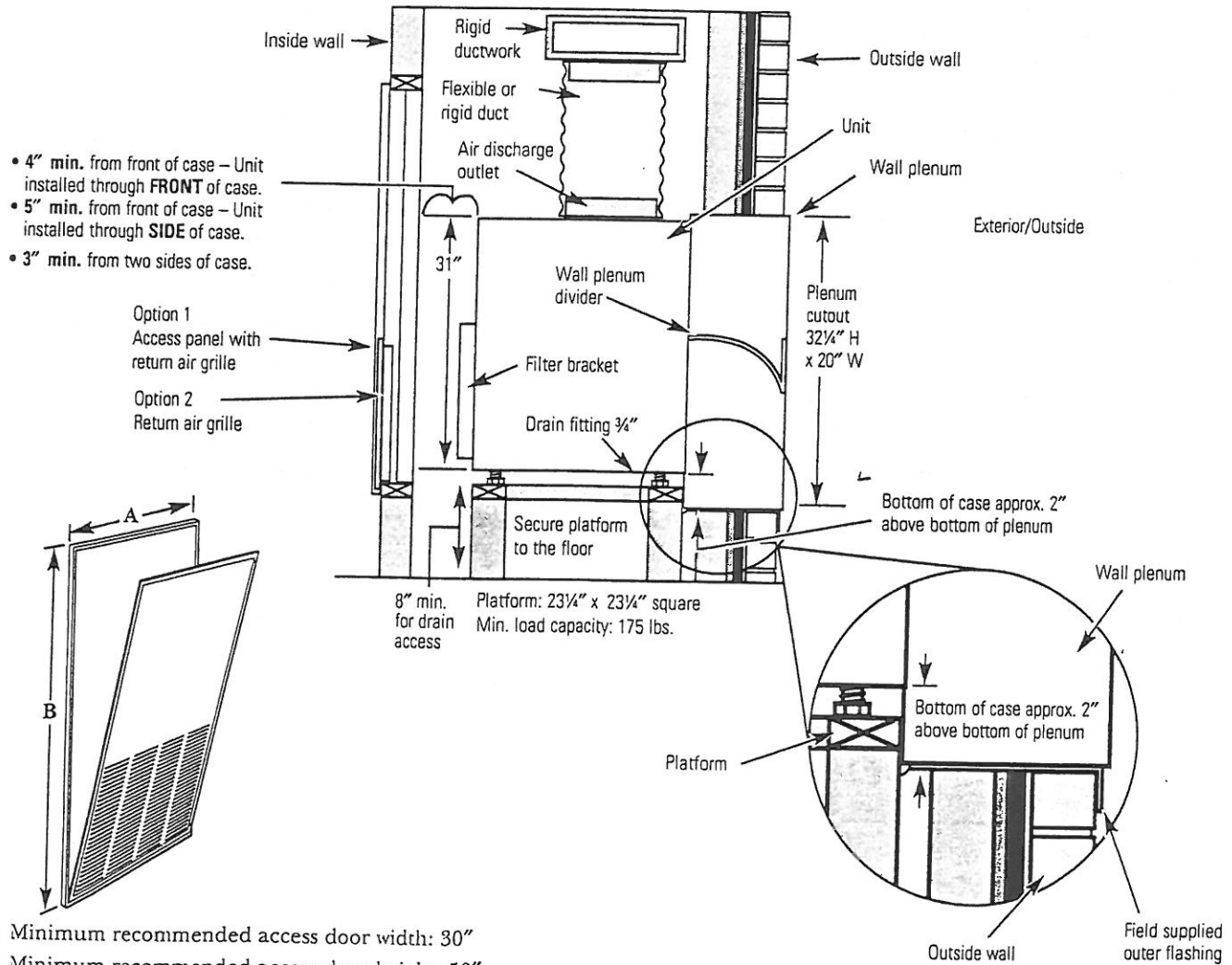
UNIT INSTALLED THROUGH FRONT OF CASE







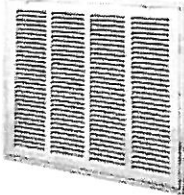

UNIT INSTALLED THROUGH SIDE OF CASE



Side View



**VERT-I-PAK® A-SERIES**

MODEL	DESCRIPTION	PHOTO
<b>VPAWP1-8</b>	<p><b>WALL PLENUM</b> Two-part sleeve that telescopes in and out from 5½" to 8" in depth. The wall plenum sits inside the exterior wall penetration.                      DIMENSIONS: 30<sup>3</sup>/<sub>8</sub>" high x 24<sup>1</sup>/<sub>8</sub>" wide.                      CUTOUT DIMENSIONS: 30<sup>7</sup>/<sub>8</sub>" high x 24<sup>5</sup>/<sub>8</sub>" wide.</p>	
<b>VPAWP1-14</b>	<p>Same as VPAWP1-8, but telescopes 8" to 14" as required.</p>	
<b>VPAL2</b>	<p><b>ARCHITECTURAL LOUVER</b> Extruded aluminum louver that attaches to the outdoor section of the wall plenum.                      DIMENSIONS: 31<sup>1</sup>/<sub>16</sub>" high x 25<sup>9</sup>/<sub>16</sub>" wide.</p>	
<b>VPSC2</b>	<p>Same as VPAL2 but can be ordered in a special color to match the exterior wall.</p>	
<b>RT2</b>	<p><b>DIGITAL THERMOSTAT</b> Digital electronic thermostat with "one touch" adjustment. Mounts to wall for control of unit.</p>	
<b>VPRG4</b>	<p><b>ACCESS PANEL / RETURN AIR GRILLE</b> – Serves as an access panel to chassis and interior return air grille. A field-supplied (25" x 20") filter is mounted inside the hinged access door.                      DIMENSIONS: 58" high x 29" wide.                      CUTOUT DIMENSIONS: 55<sup>3</sup>/<sub>4</sub>" high x 27" wide.</p>	
<b>VPRG2</b>	<p><b>RETURN AIR GRILLE</b> – Interior return air grille that hinges to allow a field supplied (16" x 20") filter to slip inside. Must be used when an access door / panel already exists in closet.                      DIMENSIONS: 18<sup>7</sup>/<sub>16</sub>" high x 22<sup>3</sup>/<sub>8</sub>" wide.</p>	
<b>VPDP1</b>	<p><b>DRAIN PAN</b> for VEA/VHA24 models. Drain pan may be installed prior to chassis for easy installation/removal.</p>	



**VERT-I-PAK SINGLE PACKAGE AIR CONDITIONERS**

Purchaser:	P.O. #	Date:
Project:	Location:	
Engineer:	Architect:	
Submitted By:	For Approval:	For Reference:

ITEM	PLAN DESIGNATION	QUANTITY	COOLING BTU/H	VOLTAGE	FRIEDRICH MODEL

**A-SERIES**

**ACCESSORIES [Wall Plenum and Outdoor Louver are required.]**

VPAWP1-8 Adjustable Wall Plenum (5-1/2"-8")	Qty	VPRG4 Return Air Grille/Access Panel	Qty
VPAWP1-14 Adjustable Wall Plenum (8"-14")	Qty	VPRG2 Return Air Grille (for wall or door)	Qty
VPAL2 Architectural Louver	Qty	RT2 Remote Digital Electric Wall Thermostat	Qty
VPSC2 Architectural Louver (color matched)	Qty	VPDP1 Drain Pan for all A Series 24,000 Btu/h	Qty

**B-SERIES**

**ACCESSORIES [Wall Plenum and Outdoor Louver are required for through the wall applications.]**

VPWP3-8/14* Wall Plenum for 18,000 and 24,000 Btu/h	Qty	VPAL3/VPSC3 Architectural Louver for VPWP3	Qty
VPWP4-8/14* Wall Plenum for 24,000, 30,000 and 36,000 Btu/h	Qty	VPAL4/VPSC4 Architectural Louver for VPWP4	Qty
VPWP5-8/14* Wall Plenum for 36,000, 42,000 and 49,000 Btu/h	Qty	VPAL5/VPSC5 Architectural Louver for VPWP5	Qty
VPWP6-8/14* Wall Plenum for 60,000 Btu/h	Qty	VPAL6/VPSC6 Architectural Louver for VPWP6	Qty
VPDPH5 Outdoor Coil Drain Pan/Line Heater for 18,000 – 36,000 Btu/h units	Qty	RT3 Remote Wall Thermostat for B series heat pumps	Qty
VPDPH6 Outdoor Coil Drain Pan/Line Heater for 42,000 – 60,000 Btu/h units	Qty	RT2 Remote Wall Thermostat for B series non-heat pumps	Qty
VPDB1 Distribution Block allows single point power connection on B-series models (100A Max)	Qty		

\*-8 plenums are adjustable from 4 1/2" – 8", -14 plenums adjust from 8" – 14".

**NOTES:**

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