



FRIEDRICH

1 8 8 3

Vert-I-Pak®

Single Package Vertical Air Conditioners



Features

- Up to 10.7 EER
- Completely self-contained; no outside condensing unit
- Can be installed from any interior side (front, right or left)
- Patented telescoping plenum (accessory) easily adapts to more installations
- Unique free-floating chassis and fully insulated cabinets for improved sound characteristics and unit performance
- Condensate removal system uses slinger ring technology to cool the coil and increase efficiency
- Primary condensate removal system provided thru 3/4" pipe fittings for more placement options
- Secondary overflow from primary drain*
- Prewired, charged and piped
- Two-speed fan control from wireless or wired wall thermostat
- Safety power disconnect
- Weighs as little as 125 lbs.
- 5 YR. limited warranty- includes labor

*24000 Btu model uses secondary gravity-fed drain

THE EXPERTS IN ROOM AIR CONDITIONING

CHASSIS SPECIFICATIONS

K-Series models 230/208V, R-Series models 265V

MODEL	VEA09K	VEA12K	VEA18K	VEA24K	VHA09K	VHA09R	VHA12K	VHA12R	VHA18K	VHA18R	VHA24K	VHA24R
COOLING DATA												
COOLING BTU	9000/9000	12000/12000	17000/16500	23000/22700	9000/9000	9000	12000/12000	12000	17000/16800	16800	23000/22800	22500
POWER (W)	840/840	1145/1120	1890/1835	2420/2390	855/855	855	1165/1165	1190	1870/1845	1845	2525/2505	2475
EER	10.7/10.7	10.5/10.7	9.0/9.0	9.5/9.5	10.5/10.5	10.5	10.3/10.3	10.1	9.1/9.1	9.1	9.1/9.1	9.1
SENSIBLE HEAT RATIO	0.77	0.74	0.70	0.70	0.77	0.77	0.75	0.77	0.70	0.70	0.70	0.70
HEATER SIZE (kW)	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0/7.5/10.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0/7.5/10.0	2.5/3.4/5.0/7.5/10.0
HEAT PUMP DATA												
HEATING BTU	—	—	—	—	8480/8400	8650	11500/11200	11000	16000/15000	15900	20000/20000	20000
COP @ 47F	—	—	—	—	3.0/3.1	3.0	3.0/3.1	3.0	3.0/3.0	3.0	3.0/3.0	3.0
HEATING POWER (W)	—	—	—	—	830/795	845	1125/1060	1075	1560/1540	1550	1953/1953	1950
HEATING CURRENT (A)	—	—	—	—	3.7/3.9	3.2	4.8/5.0	4.1	7.5/8.2	6.5	8.5/9.4	8.1
ELECTRICAL DATA												
VOLTAGE (1 PHASE, 60 HZ)	230/208	230/208	230/208	230/208	230/208	265	230/208	265	230/208	265	230/208	265
VOLT RANGE	253-197	253-197	253-197	253-197	253-197	292/239	253-197	292/239	253-197	292-239	253-197	292-239
COOLING CURRENT (A)	3.9/4.2	5.1/5.4	8.1/8.6	10.0/10.4	3.8/3.9	3.8	5.3/5.6	4.7	8.2/8.6	6.9	10.9/10.6	9.7
AMPS L.R	21.0	29.5	42.0	46.0	21.0	21.0	30.0	30.0	42.0	42.0	46.0	46.0
AMPS F.L.	3.5	4.7	7.8	9.5	3.5	3.5	4.8	4.8	7.8	7.8	9.5	9.5
INDOOR MOTOR (HP)	1/4	1/4	1/4	1/4	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	1.9	1.2	1.2	1.2	1.2	1.2	1.2	1.9	1.8
OUTDOOR MOTOR (HP)	—	—	—	1/4	—	—	—	—	—	—	1/4	1/4
OUTDOOR MOTOR (A)	—	—	—	0.85	—	—	—	—	—	—	0.85	0.9
PHYSICAL												
DIMENSIONS (W X D X H)	23"x23"x32"	23"x23"x32"	23"x23"x32"	23"x23"x47"	23"x23"x32"	23x23x32	23"x23"x32"	23x23x32	23"x23"x32"	23"x23"x32"	23"x23"x47"	23"x23"x47"
NET WEIGHT (LBS)	114	124	144	167	114	114	125	124	144	165	167	187
SHIPPING WEIGHT (LBS)	125	135	155	220	125	125	136	135	155	176	220	240
TEST SETTING	LOW	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	HIGH	HIGH	LOW	LOW
R410A CHARGE (OZ)	41.5	45	48.1	65	38	39	39.5	37	48	48	65	65
AIRFLOW DATA												
INDOOR CFM	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH	LOW HIGH
.10" ESP.10" ESP	405 450	420 450	400 480	610 700	420 450	420 450	420 450	420 450	400 480	400 480	610 700	610 700
.15" ESP.10" ESP	375 420	405 425	375 465	585 670	405 425	405 425	405 425	405 425	375 465	375 465	585 670	585 670
.20" ESP.10" ESP	345 385	385 400	350 450	560 640	385 400	385 400	385 400	385 400	350 450	350 450	560 640	560 640
.25" ESP.10" ESP	325 365	355 375	330 390	535 610	355 375	355 375	355 375	355 375	330 390	330 390	535 610	535 610
.30" ESP.10" ESP	305 340	320 350	310 330	510 580	320 350	320 350	320 350	320 350	310 330	310 330	510 580	510 580
VENT CFM	60	60	60	60	60	60	60	60	60	60	60	60

NOTES:

COOLING STANDARDS: 95°F DB/75°F WB OUTDOOR, 80°F DB/67°F WB INDOOR

HEATING STANDARDS: 47°F DB/43°F WB OUTDOOR, 70°F DB/60°F WB INDOOR

NORMAL VALUE WET COIL @ .1" ESP.

RATED CFM AT LOW SPEED: VEA09/VHA09....325 VEA12/VHA12....390

VEA18/VHA18....400 VEA24/VHA24....610

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

ELECTRIC HEAT DATA

	VE/VHA09K			VE/VHA12K			VE/VHA18K		
HEATER WATTS	2500/2050	3400/2780	5000/4090	2500/2050	3400/2780	5000/4090	2500/2050	3400/2780	5000/4090
VOLTAGE	230/208			230/208			230/208		
HEATING Btu	8500/7000	11600/9500	17000/13900	8500/7000	11600/9500	17000/13900	8500/7000	11600/9500	7000/13900
HEATING CURRENT (AMPS)	10.9/9.9	14.8/13.4	21.7/19.7	10.9/9.9	14.8/13.4	21.7/19.7	10.9/9.9	14.8/13.4	21.7/19.7
MINIMUM CIRCUIT AMPACITY	15	19.9	28.6	15	19.9	28.6	15	19.9	28.6
BRANCH CIRCUIT FUSE / MOP / MOCP (Maximum Over Current Protection) (AMPS)	15	20	30	15	20	30	15	20	30
HEATER SIZE (kW)	2.5	3.4	5.0	2.5	3.4	5.0	2.5	3.4	5.0

	VE/VHA09R			VE/VHA12R			VE/VHA18R		
HEATER WATTS	2500	3400	5000	2500	3400	5000	2500	3400	5000
VOLTAGE	265			265			265		
HEATING Btu	8500	11600	17000	8500	11600	17000	8500	11600	17000
HEATING CURRENT (AMPS)	10.6	14.0	20.1	10.6	14.0	20.1	10.6	14.0	20.1
MINIMUM CIRCUIT AMPACITY	13.1	17.4	24.9	13.1	17.4	24.9	13.3	17.5	25.1
BRANCH CIRCUIT FUSE / MOP / MOCP (Maximum Over Current Protection) (AMPS)	15	20	30	15	20	30	15	20	30
HEATER SIZE (kW)	2.5	3.4	5.0	2.5	3.4	5.0	2.5	3.4	5.0

	VE/VHA24K					VE/VHA24R				
HEATER WATTS	2500/2050	3400/2780	5000/4090	7500/6135	10000/8180	2500	3400	5000	7500	10000
VOLTAGE	230/208					265				
HEATING Btu	8500/7000	11600/9500	17000/13900	25598/20939	34130/27918					
HEATING CURRENT (AMPS)	10.9/9.9	14.8/13.4	21.7/19.7	32.6/29.5	43.5/39.3	12.2	15.6	19.8	29.2	38.6
MINIMUM CIRCUIT AMPACITY	17.2	22.1	30.7	44.3	57.9	20	20	24.8	36.5	48.3
BRANCH CIRCUIT FUSE / MOP / MOCP (Maximum Over Current Protection) (AMPS)	25	25	30	45	60	25	25	30	40	50
HEATER SIZE (kW)	2.5	3.4	5.0	7.5	10.0	2.5	3.4	5.0	7.5	10.0

EXTENDED COOLING PERFORMANCE

		OUTDOOR DRY BULB TEMP. (DEGREES F AT 40% R.H.)														
		75			85			95			105			110		
		INDOOR WET BULB TEMP. (DEGREES F AT 80 F D.B.)														
		72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
VEA09K	BTUh	10584	10179	9423	10080	9504	8766	9684	9000	7965	9072	8055	7101	8073	6948	6138
	WATTS	685	696	704	747	754	764	840	840	840	908	907	910	990	990	995
	AMPS	3.2	3.2	3.3	3.5	3.5	3.5	3.9	3.9	3.9	4.2	4.2	4.2	4.6	4.6	4.6
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	0.77	0.99	0.55	0.81	0.99	0.58	0.87	0.99
VEA12K	BTUh	14112	13572	12564	13440	12672	11688	12912	12000	10620	12096	10740	9468	10764	9264	8184
	WATTS	934	949	960	1018	1028	1041	1145	1145	1145	1238	1237	1240	1350	1350	1356
	AMPS	4.2	4.2	4.3	4.5	4.6	4.6	5.1	5.1	5.1	5.5	5.5	5.5	6.0	6.0	6.0
	SHR	0.51	0.69	0.93	0.52	0.71	0.95	0.52	0.74	0.95	0.53	0.78	0.96	0.56	0.83	0.95
VEA18K	BTUh	19992	19227	17799	19040	17952	16558	18292	17000	15045	17136	15215	13413	15249	13124	11594
	WATTS	1542	1567	1584	1680	1697	1718	1890	1890	1890	2043	2041	2047	2228	2228	2238
	AMPS	6.7	6.7	6.8	7.2	7.2	7.3	8.1	8.1	8.1	8.7	8.7	8.7	9.5	9.5	9.5
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
VEA24K	BTUh	27048	26013	24081	25760	24288	22402	24748	23000	20355	23184	20585	18147	20631	17756	15686
	WATTS	1975	2006	2028	2151	2173	2200	2420	2420	2420	2616	2614	2621	2853	2853	2865
	AMPS	8.3	8.3	8.4	8.9	9.0	9.0	10.0	10.0	10.1	10.8	10.8	10.8	11.7	11.7	11.8
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
								RATING POINT AHRI 390								

		OUTDOOR DRY BULB TEMP. (DEGREES F AT 40% R.H.)														
		75			85			95			105			110		
		INDOOR WET BULB TEMP. (DEGREES F AT 80 F D.B.)														
		72	67	62	72	67	62	72	67	62	72	67	62	72	67	62
VHA09K	BTUh	10584	10179	9423	10080	9504	8766	9684	9000	7965	9072	8055	7101	8073	6948	6138
	WATTS	698	709	716	760	768	777	855	855	855	924	923	926	1008	1008	1012
	AMPS	3.1	3.2	3.2	3.4	3.4	3.4	3.8	3.8	3.8	4.1	4.1	4.1	4.5	4.5	4.5
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	0.77	0.99	0.55	0.81	0.99	0.58	0.87	0.99
VHA12K	BTUh	14112	13572	12564	13440	12672	11688	12912	12000	10620	12096	10740	9468	10764	9264	8184
	WATTS	951	966	976	1036	1046	1059	1165	1165	1165	1259	1258	1262	1374	1374	1379
	AMPS	4.4	4.4	4.5	4.7	4.7	4.8	5.3	5.3	5.3	5.7	5.7	5.7	6.2	6.2	6.2
	SHR	0.51	0.70	0.94	0.52	0.72	0.96	0.53	0.75	0.96	0.54	0.79	0.97	0.57	0.84	0.96
VHA18K	BTUh	19992	19227	17799	19040	17952	16558	18292	17000	15045	17136	15215	13413	15249	13124	11594
	WATTS	1526	1550	1567	1662	1679	1700	1870	1870	1870	2021	2020	2025	2205	2205	2214
	AMPS	6.8	6.8	6.9	7.3	7.3	7.4	8.2	8.2	8.2	8.8	8.8	8.9	9.6	9.6	9.7
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
VHA24K	BTUh	27048	26013	24081	25760	24288	22402	24748	23000	20355	23184	20585	18147	20631	17756	15686
	WATTS	2060	2093	2116	2245	2267	2295	2525	2525	2525	2730	2727	2735	2977	2977	2990
	AMPS	9.0	9.1	9.2	9.7	9.8	9.8	10.8	10.9	11.0	11.7	11.7	11.8	12.8	12.8	12.8
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
VHA09R	BTUh	10584	10179	9423	10080	9504	8766	9684	9000	7965	9072	8055	7101	8073	6948	6138
	WATTS	698	709	716	760	768	777	855	855	855	924	923	926	1008	1008	1012
	AMPS	3.1	3.2	3.2	3.4	3.4	3.4	3.8	3.8	3.8	4.1	4.1	4.1	4.5	4.5	4.5
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	0.77	0.99	0.55	0.81	0.99	0.58	0.87	0.99
VHA12R	BTUh	14112	13572	12564	13440	12672	11688	12912	12000	10620	12096	10740	9468	10764	9264	8184
	WATTS	971	987	997	1058	1069	1082	1190	1190	1190	1286	1285	1289	1403	1403	1409
	AMPS	3.9	3.9	4.0	4.2	4.2	4.2	4.7	4.7	4.7	5.1	5.1	5.1	5.5	5.5	5.5
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	0.77	0.99	0.55	0.81	0.99	0.58	0.87	0.99
VHA18R	BTUh	19757	19001	17590	18816	17741	16363	18077	16800	14868	16934	15036	13255	15070	12970	11458
	WATTS	1506	1530	1546	1640	1657	1677	1845	1845	1845	1994	1993	1998	2175	2175	2184
	AMPS	5.7	5.7	5.8	6.1	6.2	6.2	6.9	6.9	6.9	7.4	7.4	7.5	8.1	8.1	8.1
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
VHA24R	BTUh	26460	25448	23558	25200	23760	21915	24210	22500	19913	22680	20138	17753	20183	17370	15345
	WATTS	2020	2052	2074	2200	2223	2250	2475	2475	2475	2675	2673	2680	2918	2918	2930
	AMPS	8.0	8.1	8.2	8.6	8.7	8.7	9.7	9.7	9.7	10.4	10.4	10.5	11.4	11.4	11.4
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	0.70	0.90	0.50	0.74	0.90	0.53	0.79	0.90
								RATING POINT AHRI 390								

EXTENDED HEATING PERFORMANCE

230/208 V Models		OUTDOOR DRY BULB TEMP. (DEGREES F)				
		37	42	47	52	57
VHA09K	BTUh	7066	7457	8480	9287	10257
	WATTS	783	796	830	844	891
	AMPS	3.6	3.7	3.7	3.8	4
VHA12K	BTUh	8525	9085	11500	12276	13125
	WATTS	1010	1026	1125	1133	1148
	AMPS	4.7	4.7	4.8	4.8	4.9
VHA18K	BTUh	11554	12757	16000	16864	18294
	WATTS	1364	1417	1560	1605	1658
	AMPS	6.7	6.8	7.5	7.8	8.2
VHA24K	BTUh	15834	16316	20000	21880	23970
	WATTS	1798	1821	1953	2069	2162
	AMPS	7.7	7.9	8.5	9.0	9.3
		RATING POINT AHRI 390				

265 V Models		OUTDOOR DRY BULB TEMP. (DEGREES F)				
		37	42	47	52	57
VHA09R	BTUh	7208	7607	8650	9473	10462
	WATTS	797	811	845	859	907
	AMPS	3.1	3.2	3.2	3.3	3.4
VHA12R	BTUh	8154	8690	11000	11743	12554
	WATTS	965	980	1075	1082	1097
	AMPS	4.0	4.0	4.1	4.1	4.2
VHA18R	BTUh	11481	12677	15900	16759	18180
	WATTS	1355	1408	1550	1595	1647
	AMPS	5.8	5.9	6.5	6.8	7.1
VHA24R	BTUh	15834	16316	20000	21880	23970
	WATTS	1795	1818	1950	2066	2159
	AMPS	7.4	7.5	8.1	8.5	8.8
		RATING POINT AHRI 390				

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



Application and Installation

Installation Guidelines

- Chassis is to be installed against an exterior wall. Wall cutout dimensions will be 24 5/8" w x 30 7/8" h.
- Closet should allow for a minimum of three inches on three sides of the unit for return air, drain connections and change outs.
- Minimum recommended access door rough-in measurements 27" wide by 55 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 .3" on 9,000 – 18000 Btu models, and .4" on 24000 Btu models.
- Wall plenum allows chassis to be inserted 2 3/8" into plenum, thereby minimizing closet dimensions.
- Quick connect drain coupling ships standard to make installation and removal easier.

Application and Accessories (All models)

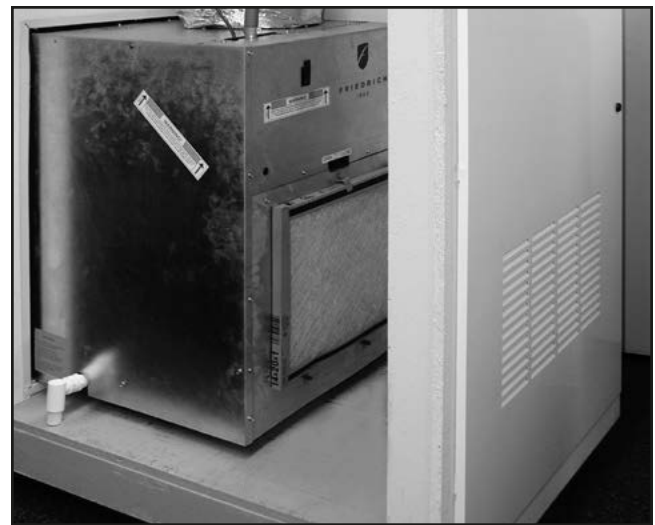
- The use of a Friedrich wall plenum is required for installation. Plenum opening is 3/4" above the floor for 9, 12 and 18k models, and 1 1/2" for 24k Btu models. (VPAWP1-8 / VPAWP1-14).
- Return air is accommodated with a return air filter attached to the unit or through the use of a return air filter grille. (VPRG4).
- 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 WRT1 wireless digital thermostat, RT6 wired digital thermostat, or EMRT1/EMWRT1 Energy Management Stats are recommended.
- Central desk control ready.



Typical Closet Arrangement

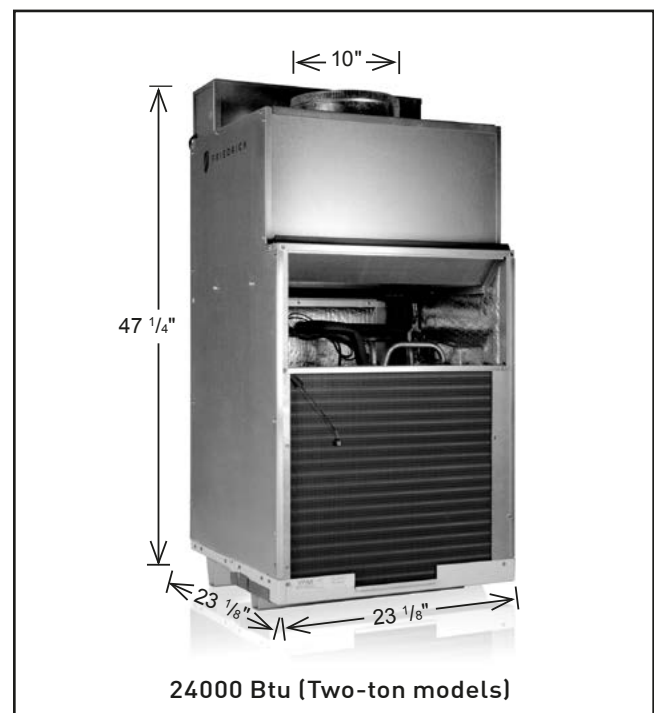
Cutaway of a typical closet shown with Vert-I-Pak® chassis installed in the wall sleeve. The unit has the thermostat, field wiring, internal drain and flex duct attached. VPRG4 return air filter holder and access panel are shown below.

The closet access panel may be installed in the front (as shown below) or to the left or right side of the unit. All three installation options will allow easy access to the unit for removal and replacement.



Application and Accessories (24K Models only)

- 24K utilizes drain pan (VPDP1) that can be installed prior to chassis for simplified installation and removal.
- 24K utilizes the same wall plenum as other units to give consistent exterior appearance. VEA/VHA24 plenum must be installed 1 1/2" above chassis platform.



OPTIONAL ACCESSORIES

ARCHITECTURAL LOUVER

VPAL2 and VPSC2

Extruded aluminum grille that attaches to the outdoor section of the wall plenum. Takes in fresh air and returns condensed air. VPSC2 can be ordered in custom colors.

DIMENSIONS: 25 9/16" W x 31 1/16" H



VPAL2



VPAWP1-8

WALL PLENUM

VPAWP1-8, VPAWP1-14

Two-part sleeve that telescopes in and out. Sits inside the exterior wall penetration.

VPAWP1-8 telescopes from 5 1/2"–8"

VPAWP1-14 telescopes from 8"–14"

DIMENSIONS: 24 1/8" W x 30 3/8" H

CUTOUT DIMENSIONS: 24 5/8" W x 30 7/8" H

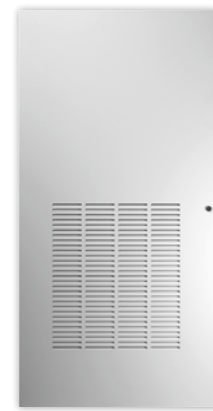
RETURN AIR GRILLE/ACCESS PANEL

VPRG4 / VPRG4R

Hinged panel allows access to unit and return air filter. A field-supplied filter (25" x 20") should be mounted on the inside grille. Panel can be mounted with return air openings high or low on the door for optimum sound attenuation.

DIMENSIONS: 29" W x 58" H

CUTOUT DIMENSIONS: 27" W x 55 3/4" H



VPRG4/
VPRG4R

FIRST COMPANY SLEEVE ADAPTER

VPASA1

Single piece, welded adapter allows retrofit into existing First Company SPXR-series single package vertical unit wall sleeve and louver. Easy connection to Friedrich chassis.



VPASA1

SINGLE STAGE THERMOSTATS

RT6

Wired, single stage, wall-mounted digital thermostat with two fan speeds and backlight for control of Friedrich VERT-I-PAK.

WRT1

Wireless, single stage, wall-mounted digital thermostat with two fan speeds and backlight for control of Friedrich VERT-I-PAK.



RT6



WRT1

ENERGY MANAGEMENT THERMOSTATS

EMRT1

Wired thermostat with occupancy sensor.

EMWRT1

Wireless thermostat with occupancy sensor.

EMOCT

Online connection kit.

EMRAF

Remote access fee.

EMRHCF

Remote humidity control fee.



EMRT1, EMWRT1

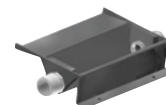


DRAIN PAN

VPDP1

For VEA/VHA24 models. May be installed prior to chassis for easy installation/removal.

VPDP1



HVAC Engineering Specifications

A-Series Vertical Packaged Air Conditioners & Heat Pumps

Cooling: 9000 – 23000 Btu

Heating: 8200 – 20000 Btu (Heat Pump)
8500 – 34130 Btu (Electric Heat)

Friedrich
Models:

VEA – Cooling with electric heat
VHA – Heat Pump with electric heat

All units shall be factory assembled, piped, wired and fully charged with R-410A. All units shall be certified in accordance with ARI Standard 390 for Single Packaged Vertical Air Conditioners and Heat Pumps. Units shall be ETL listed and carry a ETL label. All units shall be factory run-tested to check operation and be manufactured by Friedrich or equivalent.

The basic unit shall not exceed 23 1/8" wide x 23 1/8" deep. Overall height of the unit from the bottom of the isolators to the top of the duct collar shall not exceed 32 1/4" for models up to 18,000 Btu and 47 1/4" for models up to 24,000 Btu. The unit shall be designed so that the unit will insert into a factory supplied wall plenum 2 3/8" to minimize room intrusion. Factory supplied wall plenums shall allow for installation through walls from 4 1/2" – 14" in thickness. Wall plenums will be adjustable to minimize installation clearances. Unit shall draw in ambient air through upper portion of an outside architectural louver measuring 25 9/16" wide x 31 1/16" high and shall exhaust heated air out through the lower portion of the louver. The unit shall be secured to the architectural louver by means of a two part, weather-resistant wall plenum. The unit shall be capable of left, right or straight-in installations into mechanical closet without field modifications.

REFRIGERATION SYSTEM – The refrigeration system shall be hermetically sealed and consist of a rotary compressor that is externally mounted on vibration isolators no smaller than 1 3/4" dia. x 1 1/2" high; condenser and evaporator coils constructed of copper tubes and aluminum plate fins; and capillaries as expansion devices. Unit shall have a fan slinger ring to increase efficiency and condensate disposal. A primary condensate removal system consisting of 3/4" FTP fittings on multiple locations shall exist. A secondary overflow from the primary drain pan shall expel water to the outside of the building through the wall plenum and louver in the event that the primary drain line clogs.

AIR HANDLING SECTION – The condenser fan shall be driven by a single, totally enclosed, ball bearing, permanently lubricated split capacitor fan motor for models up to 18,000 Btu. 24,000 Btu models shall utilize a separate motor for both the indoor and outdoor air sections. Airflow shall be directed vertically up through a standard 10" flex duct starter collar and into flexible or rigid ducts to be distributed into the conditioned area. Starter collar shall have both crimped edge to ease flex duct installation and a waistline to prevent duct from loosening.

The chassis shall have a built-in damper capable of providing at least 60 CFM of fresh air into the conditioned area. A fine mesh screen shall filter the incoming fresh air. The damper can be controlled by a slide lever located on the front of the unit.

CONTROLS – The unit shall be factory equipped with terminal strip for connection to a standard 24-volt single-stage heat/cool thermostat. A 24-volt transformer shall be included and factory wired. Low voltage inputs will include: C (common), R (24V power), Y (cooling), G (fan), W (heat) and B (reversing valve on VHA heat pumps only). The unit shall be hard-wired and have a quick-disconnect to disable power for control box service.

An emergency heat override switch must be available to allow operation of the resistance heater in the event of a compressor failure on heat pump models.

GENERAL CONSTRUCTION – The unit shall be constructed of 18-gauge galvanized zinc-coated steel. The unit shall feature 1/2" foil backed insulation for sound and thermal efficiency.

The wall plenum (required factory accessory) shall be shipped separately and constructed of 20-gauge galvanized zinc-coated steel; pretreated with zinc-phosphate and sealed with a chromate rinse, then powder-coated for maximum coverage and protection. The plenum shall be black in color for minimal visibility of unit from exterior of building. The plenum shall be shipped with a protective weatherboard for use prior to final installation of the louver and chassis.

The architectural louver (required factory accessory) shall be shipped separately and fabricated from extruded anodized aluminum with louvers in the horizontal plane.

The unit shall include vibration isolators mounted under the chassis and a nonrigid plenum-to-chassis connection to isolate vibrations to the building.

The unit shall have a plastic fan, fan shroud and drain pan and aluminum outdoor coil endplates for corrosion protection and to help prevent rust on the side of the building below the outdoor louver.

The unit shall be shipped with return air filter brackets and a 14" x 20" filter affixed directly on to the unit chassis. Optional return air grilles and access panels shall be available as factory accessories for installation in the wall or door of the mechanical closet.

CORROSION PROTECTION – The unit shall feature corrosion-resistant materials and finish to help prevent deterioration.

The outdoor coil shall have Diamonblue advanced corrosion protection consisting of hydrophilic-coated fins to prolong the life of the coil in all applications including seacoast protection.

ACCESSORY ACCESS PANEL – An optional factory-supplied access panel shall be available to provide access to the unit and adequate return air. The panel shall feature a filter holder to accept a field supplied 25" x 20" x 1" filter. Kit shall contain a hinge bracket for mounting the door with the return air openings high or low on the door for optimal sound attenuation. For 9,000 / 12,000 / 18,000 Btu models it is recommended to install the door with the hinge on the right side and the return air openings high on the door. For 24,000 Btu models it is recommended to install the hinge on the left with the openings low on the door.

WARRANTY – The warranty is one year on all parts and labor and 5 years on the sealed system, parts and labor, including compressor, indoor and outdoor coils and refrigerant tubing.

PURCHASER	P.O. #	DATE
PROJECT	LOCATION	
ENGINEER	ARCHITECT	
SUBMITTED BY	FOR APPROVAL	FOR REFERENCE

ITEM	PLAN DESIGNATION	QUANTITY	COOLING Btu	VOLTAGE	FRIEDRICH MODEL

A-SERIES ACCESSORIES (Wall Plenum and Outdoor Louver are required)

VPAWP1-8 Adjustable Wall Plenum (5 ½"- 8")	Qty	
VPAWP1-14 Adjustable Wall Plenum (8"-14")	Qty	
VPAL2 Architectural Louver	Qty	
VPSC2 Architectural Louver (color matched)	Qty	
VPASA1 Sleeve adapter for exact fit in existing First Company SPXR-series	Qty	

VPRG4 Return Air Grille/Access Panel	Qty	
VPDP1 Drain Pan for all A Series 24,000 Btu	Qty	
RT6 Wired Digital Wall Thermostat	Qty	
WRT1 Wireless Digital Wall Thermostat	Qty	
EMRT1 Wired Thermostat with Occupancy Sensor	Qty	
EMWRT1 Wireless Thermostat with Occupancy Sensor	Qty	
EMOCT Online Connection Kit	Qty	
EMRAF Remote Access Fee	Qty	
EMRHCF Energy Management Remote Humidity Control Fee	Qty	

MODEL IDENTIFICATION GUIDE

MODEL NUMBER	V	E	A	09	K	34	RT	N
Series V=Vertical Series								Engineering Code
E =Cooling with electric heat H =Heat Pump								Options RT = Standard Remote Operation
Design Series A = 32"/47" Cabinet								Electric Heater Size <u>A Series</u> 25 = 2.5 KW 34 = 3.4 KW 50 = 5.0 KW 75 = 7.5 KW* 10 = 10 KW* Refer to electrical data chart for heater/unit compatibility. * 24000 Btu only.
Nominal Capacity <u>A Series (Btu)</u> 09 = 9,000 18 = 18,000 12 = 12,000 24 = 24,000								
Voltage K = 208/230V-1Ph-60Hz R = 265V								



Friedrich Air Conditioning Company
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VERT-I-PAK® A SERIES SINGLE PACKAGE VERTICAL AIR CONDITIONERS LIMITED WARRANTY

SAVE THIS CERTIFICATE. It gives you specific rights. You may also have other rights which may vary from state to state and province to province.

In the event that your unit needs servicing, contact your nearest authorized service center. If you do not know the nearest service center, ask the company that installed your unit or contact us - see address and telephone number above. To obtain service and/or warranty parts replacement, you must notify an authorized FRIEDRICH Air Conditioning Co. service center, distributor, dealer, or contractor of any defect within the applicable warranty period.

When requesting service: please have the **model** and **serial number** from your unit readily available.

Unless specified otherwise herein, the following applies:

FRIEDRICH VERT-I-PAK A SERIES VERTICAL AIR CONDITIONERS AND HEAT PUMPS

LIMITED WARRANTY - FIRST YEAR (Twelve (12) months from the date of installation). Any part found to be defective in the material or workmanship will be repaired or replaced free of charge by our authorized service center during the normal working hours; and

LIMITED WARRANTY - SECOND THROUGH FIFTH YEAR (Sixty (60) months from the date of installation). ON THE SEALED REFRIGERATION SYSTEM. Any part of the sealed refrigeration system that is defective in material or workmanship will be repaired or replaced free of charge (excluding freight charges) by our authorized service center during normal working hours. The sealed refrigeration system consists of the compressor, metering device, evaporator, condenser, reversing valve, check valve, and the interconnecting tubing.

These warranties apply only while the unit remains at the original site and only to units installed inside the continental United States, Alaska, Hawaii, Puerto Rico, Mexico and Canada. The warranty applies only if the unit is installed and operated in accordance with the printed instructions and in compliance with applicable local installation and building codes and good trade practices. For international warranty information, contact the Friedrich Air Conditioning Company - International Division.

Any defective part to be replaced must be made available to **FRIEDRICH** in exchange for the replacement part. Reasonable proof must be presented to establish the date of install, otherwise the beginning date of this certificate will be considered to be our shipment date plus sixty days. Replacement parts can be new or re-manufactured. Replacement parts and labor are only warranted for any unused portion of the unit's warranty.

We will not be responsible for and the user will pay for:

1. Service calls to:
 - A) Instruct on unit operation. B) Replace house fuses or correct house wiring. C) Clean or replace air filters. D) Remove the unit from its installed location when not accessible for service required. E) Correct improper installations.
2. Parts or labor provided by anyone other than an authorized service center.
3. Damage caused by:
 - A) Accident, abuse, negligence, misuse, riot, fire flood or acts of God. B) Operating the unit where there is a corrosive atmosphere containing chlorine, fluorine, or any damaging chemicals (other than in a normal residential environment). C) Unauthorized alteration or repair of the unit, which in turn affects its stability or performance. D) Failing to provide proper maintenance and service. E) Using and incorrect power source. F) Faulty installation or application of the unit.

We shall not be liable for any incidental, consequential, or special damages or expenses in connection with any use or failure of this unit. We have not made and do not make any representation or warranty of fitness for a particular use or purpose and there is no implied condition of fitness for a particular use or purpose. We make no expressed warranties except as stated in this certification. No one is authorized to change this certificate or to create for us any other obligation or liability in connection with this unit. Any implied warranties shall last for one year after the original purchase date. Some states and provinces do not allow limitations on how long an implied warranty or condition lasts, so the above limitation or exclusions may not apply to you. The provisions of this warranty are in addition to and not a modification of or subtraction from the statutory warranties and other rights and remedies provided by law.

Performance of Friedrich's Warranty obligation is limited to one of the following methods:

1. Repair of the unit
2. A refund to the customer for the prorated value of the unit based upon the remaining warranty period of the unit.
3. Providing a replacement unit of equal value

The method of fulfillment of the warranty obligation is at the sole discretion of Friedrich Air Conditioning.

In case of any questions regarding the provisions of this warranty, the English version will govern.

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