# Vert-I-Pak®

## SINGLE PACKAGE VERTICAL AIR CONDITIONERS
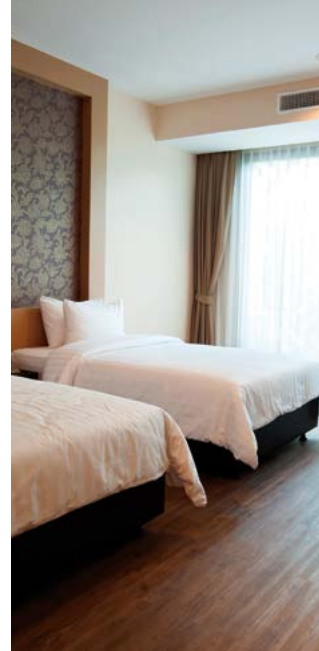
## FRIEDRICH
### 1883

**THE EXPERTS** IN ROOM AIR CONDITIONING

Vert-I-Pak®

# A Better Solution for Hospitality and Multi-Family Suites



## Vert-I-Pak® is a quiet, energy efficient option for extended stay properties, suites, assisted living, student housing and commercial spaces.

Ducted and closet-mounted, Vert-I-Pak eliminates the need for multiple through the wall units. The packaged Vert-I-Pak unit is installed out of sight, so guests enjoy a more attractive, more homelike appearance.



### Electric Heat

**COOLING**
9000-23000 Btu
**Up to 10.7 EER**

**ELECTRIC HEAT**
8500-34130 Btu

### Heat Pump

**COOLING**
9000-23000 Btu
**Up to 10.5 EER**

**REVERSE HEATING**
8500 -20000 Btu
**All 3.0 COP**

**AUXILIARY ELECTRIC HEATING**
8500-34130 Btu

# Better Aesthetics

## Outdoors

Packaged unit eliminates the clutter of outdoor condensing units and the sleek architectural grille is available in custom colors to match the building's exterior.

## Indoors

The unit is installed out of sight, so your guests will only see a wall thermostat.

# VERT-I-PAK® IS A SUPERIOR PRODUCT

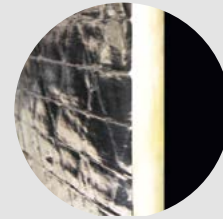| What you'll find on Friedrich Vert-I-Pak® | What you'll find on many competitor's products |
|---|---|
| 1. Floating chassis design slides into a wall plenum and is held firmly in place by a sealing gasket, reducing noise from vibration transfer. | 1. Chassis is screwed into the wall plenum. Metal-on-metal contact transfers vibration, increasing operating noise under typical conditions. Noise is transferred through the walls and into the room. |
| 2. ½ inch foil-backed insulation added on the inside of the chassis to reduce sound transmission into the guest room. | 2. No insulation on the unit to reduce noise transmission into the guest room. |
| 3. Efficiencies above industry standards with EERs up to 10.7. | 3. Hard plastic feet on the unit base which are less durable and transfer harsh vibration noise. |
| 4. Condensate removal system uses slinger ring technology to cool the coil and increase efficiency. | 4. Different plenums needed based on varying wall depths. |
| 5. Dynamically balanced blower with large, vibration-absorbing motor mounts for smooth and quiet operation. | 5. No labor warranty. |
| 6. Patented telescoping plenums (accessory) easily adapt to more installations. | |
| 7. 5 year limited warranty* (on the sealed system) includes labor.<br><br>* See warranty documentation for details. | |

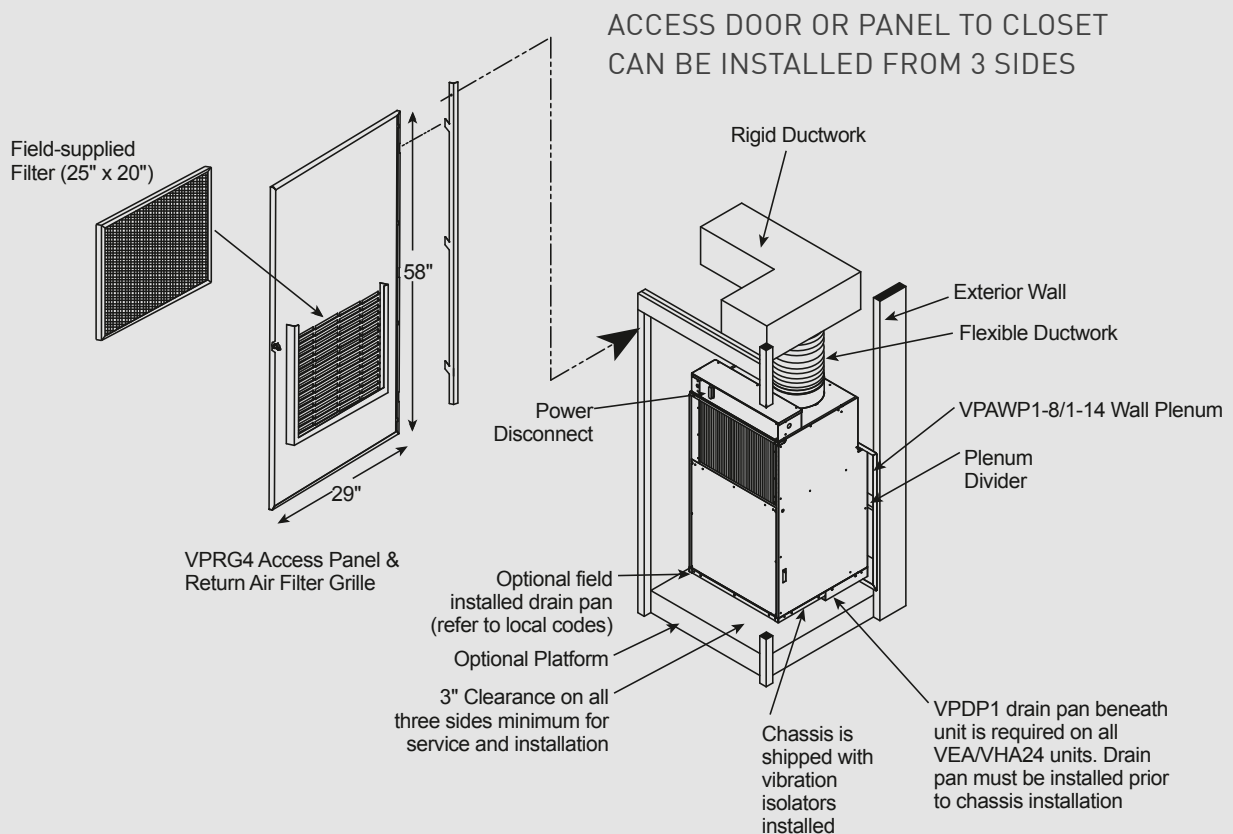# Friedrich engineered for quieter performance

## Friedrich's 'Free Floating' chassis design and superior insulation help to eliminate vibration noise

The chassis slides into the wall plenum and a gasket firmly seals the chassis to the patented telescoping plenum. This eliminates vibration noises that are transmitted into the room in competitor's metal-on-metal fixed installations. Extra thick, vibration-absorbing rubber grommets mounted on durable base that is engineered for structural and acoustic integrity.

Foil-backed, 1/2" insulation blanket inside the cabinet reduces sound transmitted into the guest room

---

## TYPICAL VERT-I-PAK® INSTALLATION

ACCESS DOOR OR PANEL TO CLOSET CAN BE INSTALLED FROM 3 SIDES

Rigid Ductwork

Field-supplied Filter (25" x 20")

58"

29"

Power Disconnect

Exterior Wall

Flexible Ductwork

VPAWP1-8/1-14 Wall Plenum

Plenum Divider

VPRG4 Access Panel & Return Air Filter Grille

Optional field installed drain pan (refer to local codes)

Optional Platform

3" Clearance on all three sides minimum for service and installation

Chassis is shipped with vibration isolators installed

VPDP1 drain pan beneath unit is required on all VEA/VHA24 units. Drain pan must be installed prior to chassis installation

## VERT-I-PAK® ADVANTAGES

### A better heating and cooling option inside and out

- **Eliminates the clutter** of outdoor condensing units and the need for vandalism barriers.
- Completely **self-contained**
- **No refrigerant lines** running from floor to floor
- **Fast, easy replacement** keeps spaces livable
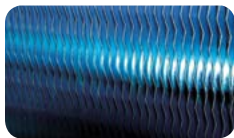
### Improved guest comfort

- **Individually** controlled
- Heat and cool
- **Duct air specifically where it's needed**, not just on the outside wall
- 2-speed fan with **constant fan option** on Friedrich RT6 and WRT1 thermostats

### A better choice than whole building solutions

- **Lower installed cost**
- **Independent metering** (no need to prorate for multi tenant applications)
- **Individual temperature set point** (one unit can heat and others can cool)
- **Less risk**, with a whole building system, spaces may become uninhabitable until the system is repaired or replaced
- Vert-I-Pak can be **easily accessed** for maintenance or replacement

### Warranty and Support

- **Industry leading warranty** features 1 year full warranty on parts and labor and 5 year limited warranty.
- **Nationwide service network and U.S. based Friedrich expert technical team** ensures you get fast, knowledgeable service.

**1 YR.** PARTS & LABOR WARRANTY

**5 YR.** LIMITED WARRANTY

## FEATURES

### Reliable and durable

- PSC **permanently lubricated motor** for low maintenance and maximum efficiency
- Engineered drain pan **won't rust**, eliminating the risk of unsightly rust stains from condensation on the building exterior
- Painted, **18-gauge galvanized steel** cabinet resists corrosion
- Standard safety power disconnect
- Electronic control panel on unit for **easy diagnostics and servicing**
- **100% run tested** prior to shipment- Every unit is tested in every operating mode before it ships for optimal performance and reliability

**DIAMONBLUE**
Advanced Corrosion Protection®

Protects the outdoor coil against deterioration and extends the life of the unit especially in harsh coastal environments.

### Easy installation

- Can be installed from any interior side (front, right or left)
- **Ductable** to multiple rooms
- **Compact and lightweight**, weighs as little as 114 lbs.
- Installation does not require an HVAC technician
- **Prewired**, charged and piped
- All units are **ready to install** with only electrical hook up needed to be up and running
- 10" crimped and beaded duct-collar ready to attach flex duct
- Patented **telescoping wall plenums** adjust to fit varying exterior wall thicknesses
- Primary condensate removal system provided through 3/4" pipe fittings for more placement options
- Secondary overflow from primary drain*
- **Central desk control** ready
- 24-volt remote wireless or wired thermostat ready
- All units are shipped (on pallet) with return air filter

### Energy management thermostats available

- **Wired and wireless** thermostats
- Integrated **motion and thermal** occupancy sensor
- Auto changeover
- 5 distinct energy presets
- Comprehensive remote management capability**

---

\* 24000 Btu model uses secondary gravity-fed drain. \*\* Energy management capability requires purchase of additional hardware and service fee

# Save big on energy without compromising guest comfort

## FriedrichLink® Thermostats, the Energy Management Solution for Friedrich Vert-I-Pak®

### Real Time Motion and Thermal Occupancy Sensor

Integrated Occupancy Sensor uses a combination of **motion and thermal sensing technologies** for accurate occupancy detection at all times - no need to install additional devices such as door switches or sensors.

### Wired or Wireless Installation

**Wired or wireless connectivity** with extensive configuration options deliver full compatibility and easy integration with virtually any packaged HVAC system.

### 5 Energy Savings Presets

**5 distinct energy saving modes** make it easy to choose the optimal energy saving settings for any property.

### Remote Management*

**Web-based remote management** provides expansive solutions for remote monitoring and configuration from any computer connected to the internet.

**Built-in Wireless Networking** enables remote management without using or interfering with property's existing wireless infrastructure. True mesh networking eliminates the need for additional networking equipment such as signal repeaters or multiple data collection boxes.

*Requires an optional "Online Connection Kit" and a one-time license fee. Optional Humidity Control Feature available through Remote Management. See accessories page 6.

Friedrich's **EMRT1** and **EMWRT1** thermostats use real-time motion and thermal occupancy detection to save energy.

When the room is unoccupied, the thermostat automatically adjusts the temperature to eliminate unnecessary heating and cooling.

**Monitor room status** and see the operation, occupancy and energy efficiency status of each room.

---

## Advanced Energy Saving Features

**Fully configurable** energy saving modes maximize energy savings without compromising guest comfort.

**Temperature setback** automatically adjusts the temperature when the room is unoccupied in order to save energy.

**Temperature recovery** calculates the setback temperature so that the desired temperature can be restored within specified time.

**Setback optimization** continuously monitors temperature recovery rate in the room and adjusts setback temperature to maximize energy savings.

**Setback limits** allow maximum and minimum room temperature to be set when the room is unoccupied.

**Set point limits** prevent guests from setting room temperature to extreme, energy-wasting levels.

**Room status** displays operation, occupancy and energy efficiency status of each room.

**Room detail** displays temperature and occupancy changes in a room.

**Energy reports** monitor energy use and can even evaluate the performance of energy saving features.

**Intuitive interface** makes it easy to apply different settings to different rooms.

**User management** allows configuration of custom access permissions and alert notification settings for different users.

**Built-in diagnostic tools** automatically send email alert notifications to hotel staff.

FriedrichLink®

*FriedrichLink® For Lodging*

# 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

### 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

### 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. Easily connects to Friedrich chassis. Only compatible with Friedrich's smaller sized VPAK 9k, 12k and 18k units.

### SINGLE STAGE THERMOSTATS

**RT6**
Wired, single stage, wall-mounted digital thermostat has two fan speeds and backlight. Controls Friedrich VERT-I-PAK.

**WRT1**
Wireless, single stage, wall-mounted digital thermostat has two fan speeds and backlight. Controls Friedrich VERT-I-PAK.

### ENERGY MANAGEMENT THERMOSTATS

**EMRT1**
Wired thermostat has occupancy sensor.

**EMWRT1**
Wireless thermostat has occupancy sensor.

| **EMOCT** | **EMRAF** | **EMRHCF** |
|---|---|---|
| Online connection kit. | Remote access fee. | Remote humidity control fee. |

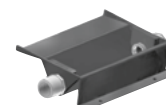### DRAIN PAN

**VPDP1**
For VEA/VHA24 models and 10.0 EER VHA18K models. May be installed prior to chassis for easy installation/removal.

VPAL2

VPAWP1-8

VPRG4/ VPRG4R

VPASA1

RT6

WRT1

EMRT1, EMWRT1

FriedrichLink®

VPDP1

# SPECIFICATIONS

| 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 | 1889/1833 | 2421/2389 | 855/855 | 855 | 1165/1165 | 1190 | 1886/1846 | 1846 | 2527/2505 | 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 | 1/5-1/6-1/7 | 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 | 405 | 450 | 420 | 450 | 400 | 480 | 610 | 700 | 420 | 450 | 420 | 450 | 420 | 450 | 390 | 450 | 400 | 480 | 400 | 480 | 610 | 700 | 610 | 700 |
| .15" ESP | 375 | 420 | 405 | 425 | 375 | 465 | 585 | 670 | 405 | 425 | 405 | 425 | 405 | 425 | 375 | 425 | 375 | 465 | 375 | 465 | 585 | 670 | 585 | 670 |
| .20" ESP | 345 | 385 | 385 | 400 | 350 | 450 | 560 | 640 | 385 | 400 | 385 | 400 | 385 | 400 | 350 | 400 | 350 | 450 | 350 | 450 | 560 | 640 | 560 | 640 |
| .25" ESP | 325 | 365 | 355 | 375 | 330 | 390 | 535 | 610 | 355 | 375 | 355 | 375 | 355 | 375 | 325 | 375 | 330 | 390 | 330 | 390 | 535 | 610 | 535 | 610 |
| .30" 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:

**New higher efficiency (10.0 EER) VHA18K, VHA18R units available early 2017.**

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.

AHRI CERTIFIED™ www.ahridirectory.org Single Package Vertical AC AHRI Standard 390

AHRI CERTIFIED™ www.ahridirectory.org Single Package Vertical HP AHRI Standard 390

DDC CERTIFIED LAB PERFORMANCE TESTED ULCDTP

ETL LISTED ® c ETL LISTED ®

# FRIEDRICH