FreshAire Mare

The most advanced PTAC ever.



FRIEDRICH

1883

The first PTAC to utilize a fully-integrated fresh air system that delivers makeup air that complies with ASHRAE 62.1-2013 requirements

- 35 CFM of Merv 8 filtered fresh air
- Inverter compressor extends the unit's cooling & heating capacity
- Improved dehumidification for better comfort
- Reduced sound levels





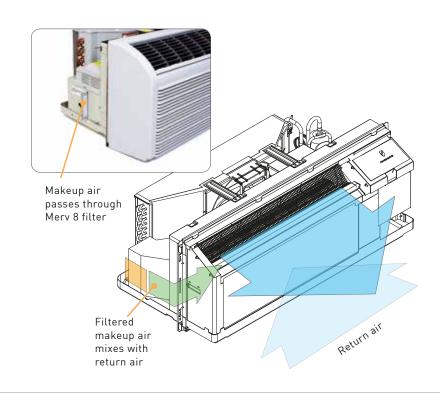
True makeup air capability. Fully integrated FreshAire system complies with ASHRAE 62.1-2013 requirements

The new Friedrich FreshAire PTAC brings up to 35 CFM of conditioned, MERV 8 filtered outside air into the space.

Patents-pending technology uses the inverter compressor and main cooling system to optimize temperature and humidity level of incoming air.

By introducing makeup air directly into the guestroom, rooftop central fresh air systems can be considerably downsized to service only the common areas of the property.

This greatly reduces the cost and complexity of hotel design and construction.
Unlike other PTACs, the FreshAire PTAC utilizes the main evaporator coil and MERV 8 filters to truly condition and filter the outside ventilation air.



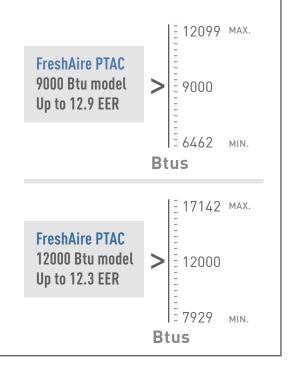
The widest cooling & heating range in the industry with only two models

Variable speed technology gives you the flexibility of a full line of PTACs with only two models, and offers the highest available capacity of any 42×16 PTAC on the market at over 17000 BTUs.

The Friedrich Inverter variable speed compressor matches the unit output to the actual demand of the space for increased comfort and lower energy consumption.

- The **9000 BTU MODEL** can operate as low as 6462 Btus and as high as 12099 Btus.
- The **12000 BTU MODEL** can operate as low as 7929 Btus and as high as 17142 Btus.

That's like getting multiple PTACs in one.





Inverter compressor offers many advantages over traditional PTACs

ADVANTAGES INCLUDE

- Improved dehumidification
- Quieter start-up and operation
- Better efficiency during part load hours of cooling & heating
- Reduced temperature swings improve guest comfort

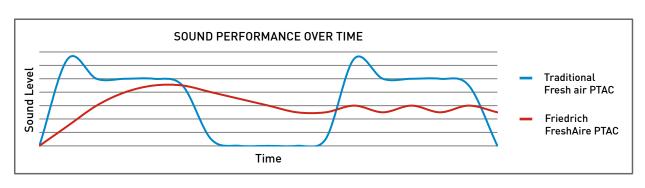


TRADITIONAL PTAC SYSTEM	INVERTER PTAC SYSTEM	
At initial start up, a fixed capacity system slowly reaches the set temperature.	FASTER TO SETPOINT At initial start up, utilizes variable capacity to quickly reach the set temperature.	
Complete shutdown once set temperature is achieved.	MAXIMUM ENERGY SAVINGS Reduces capacity as set temperature is achieved.	
Temperature within the space rises until 2nd system start up.	MAINTAINS PRECISE COMFORT	
System works at full capacity to again reach set temperature.	Variable capacity maintains set temperature keeping space comfortable with reduced energy consumption.	
System cycles on and off continually to maintain the set temperature.	 Variable capacity operation provides improved humidity control in the guestroom. 	

Soft-start technology provides the smoothest PTAC sound available

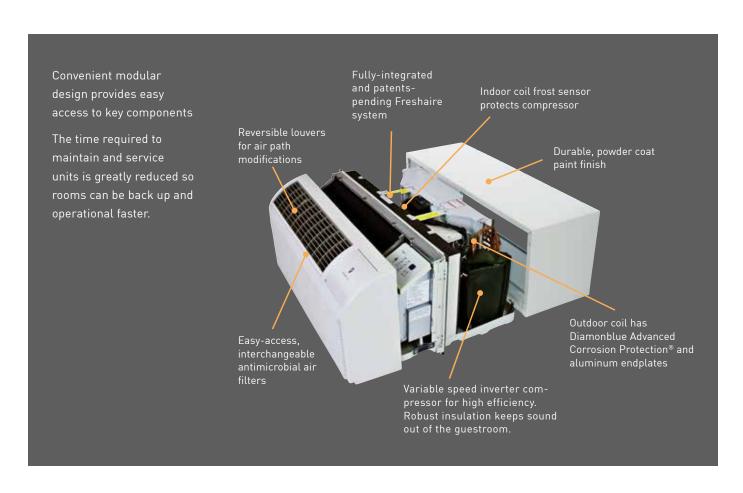
The variable-speed operation of the Freshaire PTAC allows the unit to work at the optimal speed to match the true load of the room. This not only provides the best energy consumption curve it also adds to guest comfort by eliminating the harsh start-ups associated with single speed compressors.

THE CURVES BELOW ILLUSTRATE THE DIFFERENT SOUND CHARACTERISTICS OF A SINGLE-SPEED PTAC VERSUS A FRESHAIRE MODEL PTAC.





The first PTAC that meets ASHRAE 62.1 and delivers best-in-class efficiencies, trusted performance and low sound levels.



230V Fresh Air Inverter

COOLING

PVH09K

STANDARD RATING 9000 Btu

EXTENDED RATING 6,462 - 12099 Btu

PVH12K

STANDARD RATING 12000 Btu

EXTENDED RATING 7,929 - 17142 Btu

Up to 12.8 EER

HEAT PUMP

PVH09K

STANDARD RATING 8500 Btu

EXTENDED RATING 5606 - 11745 Btu

PVH12K

STANDARD RATING 11800 Btu

EXTENDED RATING 6995 - 16187 Btu

Up to 3.58 COP

BACK UP ELECTRIC HEAT

2.5 kw, 3.5 kw and 5.0 kw* heater options *5.0 kw heater cannot be used on PV09K

IMPORTANT NOTE: Sleeves are sold and shipped separately to accommodate new construction and replacement requirements. Fits other PTAC sleeves without the added expense of a baffle kit.

FRESHAIRE SYSTEM

Dedicated fan delivers 35 CFM of outside air into the room.

MERV 8 filter is washable and replaceable.

Does not rely on separate refrigeration system like competitor's units.



DURABLE CONSTRUCTION

Aluminum endplates reduce outdoor coil corrosion.

Galvanized zinc coated steel wall sleeve and steel base pan undergo an 11-step preparation process, are powder coated with a polyester finish and cured in an oven for exceptional durability.

Factory run-tested units reduce problems in the field.

Internal diagnostic program can alert maintenance to component failures or operating problems. Fourteen numeric service error codes stored in memory facilitate rapid unit diagnostics.

Easy access anti-microbial filters simplify maintenance and extend the life of the product.

Room freeze protection initiates heat if temperature falls to 50°F in an unoccupied room.

Random compressor restart protects electrical systems from overload when power is restored.

Tamper-resistant, anodized stamped aluminum grille withstands chalking and oxidation.



Indoor coil frost sensor protects the compressor to lengthen the life of the unit.



DIAMONBLUE

DiamonBlue Advanced Corrosion Protection® comes standard on all PTACs for long life in harsh coastal environments.

ENERGY EFFICIENT & ENERGY SMART

Variable speed Inverter compressor delivers EERs up to 12.87 at part load conditions (9000 Btu model operating at 6462 Btu).

Exceptional FriedrichLink® energy management thermostats available (wired & wireless) with integrated occupancy sensor, five distinct energy presets and comprehensive remote management capability.*

Energy efficient heat pump models available in our complete line.

Electronic defrost control ensures more run time in efficient heat pump mode.

Electronic temperature limiting to adjust low/high temperature range limits for reduced energy usage.

Slinger ring technology in condensate removal system cools the coil and increases efficiency.

Central desk control ready to allow hotel owners to control units from a central location.

COMFORT, HEALTH & IAQ

Dehumidification removes moisture in cool mode to improve comfort and reduce the chance of mold and mildew growth.

Integrated Fresh air manifold effectively conditions outside air and meets ASHRAE 62.1 standard for IAQ

Intuitive unit controls are user friendly with easy-to-read LED display that can show either set-point or actual room temperature as selected by owner.

Anti-microbial air filters are easy to access and washable.

Instant Heat heat pump mode quickly heats a room to the desired temperature for increased comfort.

Automatic periodic sampling of room temperature to ensure desired conditions are maintained.

Reversible indoor air louvers to easily change direction of airflow.

SOUND REDUCTION FEATURES

Two permanently lubricated fan motors for added durability and reduced sound levels indoors.

Quiet, efficient inverter compressor mounted with vibration isolators to keep the compressor running smoothly and quietly.

High-density insulation and steel inner wall block outdoor noise

Tangential blower wheel creates a wide path air flow that reaches the furthest corner of the guest room more quietly than conventional fans.

EASE OF MAINTENANCE & INSTALLATION

Modular product design ensures easy access to key components for cleaning and repairs, including washable, lift-out air filters.

Faultless Sure-hold front cover system securely attaches the front each time.

May be installed low on the floor.

WARRANTY AND SERVICE

2 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.





See warranty documentation for full details



^{*} Energy management capability requires purchase of additional hardware and service fee.

OPTIONAL ACCESSORIES

WALL SLEEVE

PDXWSA

Galvanized steel is prepared in a multi-step process for stronger paint adhesion, then powder coated with a polyester finish and cured in an oven for exceptional durability. The wall sleeve is insulated for thermal efficiency and noise reduction.

SLEEVE DIMENSIONS: 16" H x 42" W x 13 3/4" D CUT OUT DIMENSIONS: 16 1/4" H x 42 1/4" W FRONT COVER DIMENSIONS: 16" H x 42" W x 7 3/4" D



PDXWSEXT18 PDXWSEXT24

For walls up to $17^{1/2}$ " deep. For walls up to $23^{1/2}$ " deep.

PDXWSEXT (Custom depth wall sleeve)

One-piece, extended wall sleeve with built-in baffle for walls from 13 $^{1}/_{4}$ " to 25 $^{1}/_{2}$ " deep are available by special order.

SLEEVE EXTENSION RETROFIT KIT

PXSE

 $2^{1}/4$ " sleeve extension attached to the room side of the sleeve to allow for the installation of a PD-series Friedrich PTAC in an 11 $^{1}/_{2}$ " deep T-series sleeve.

INTELLIGENT WALL CONTROLLER*

PFAXWC1

Wired wall-mounted controller.

DIGITAL REMOTE THERMOSTAT

RT6P

Wired, single stage, wall-mounted programmable thermostat has two fan speeds and backlight.

RT6

Wired wall-mounted thermostat (can be unit powered).

WRT1

Wireless wall-mounted thermostat (battery powered).

FRIEDRICHLINK® ENERGY MANAGEMENT THERMOSTATS

EMRT1

Wired thermostat with occupancy sensor.

EMWRT1

Wireless thermostat with occupancy sensor.

EMOCT EMRAF EMRHCF

Online connection kit. Remote access fee. Remote humidity control fee.

REMOTE THERMOSTAT ESCUTCHEON KIT

PDXRTB

Kit contains escutcheons that can be placed over the factory control buttons (recommended when a remote wall mounted thermostat is used as controls become inoperable). The escutcheon directs the user to the wall thermostat for operation and retains the LED window to display error codes and diagnostic information. 10 pack.

CONDUIT KIT /JUNCTION BOX

PXCJA

Hard wire conduit kit with junction box for 208/230V and 265V units (subbase not required). Kit includes a means of quick disconnect for easy removal of the chassis.

SUBBASE DISCONNECT SWITCH

PXDS





PDXWSA



Deep wall sleeve extension PDXWSEXT18 shown with weather panel in place



PXSE



PFAXWC1



a a

RT6P, RT6



WRT1



EMRT1, EMWRT1

EMOCT



PDXRTB



PXCJA



STANDARD GRILLE

PXGA

Standard, stamped, anodized aluminum to resist chalking and oxidation.

ARCHITECTURAL GRILLES

Architectural grilles consist of heavy gauge 6063-T5 aluminum alloy.

PXAA Clear extruded aluminum.

PXBG Beige acrylic enamel.

PXSC Available in custom colors.

DECORATIVE SUBBASE (black)

PXSBA

Provides unit support for walls less than six inches thick. Includes leveling legs, side filler panels and mounting brackets for electrical accessories. Accepts circuit breaker, power disconnect switch and conduit kit.

ELECTRICAL SUBBASE

Provides unit support for walls less than six inches thick. Includes leveling legs, side filler panels, mounting brackets, a plug-in receptacle and field-wiring access. The subbase also includes electrical knockouts for power disconnect switch or circuit breaker.

PXSB23020	Electrical Subbase - 230V 15 & 20A
PXSB23030	Electrical Subbase - 230V 30A
PXSB26515	Electrical Subbase - 265V 15A
PXSB26520	Electrical Subbase - 265V 20A
PXSB26530	Electrical Subbase - 265V 30A

POWER CORDS

Universal power cords enable properties to select the appropriate heater size. Reference the adjacent table for power cord options.

^{*}Cannot be used on PVH09K3FA

		Length
PXPCFA23015	LCDI 230V 15A Cord - 2.5 kW	67 in.
PXPCFA23020	LCDI 230V 20A Cord - 3.5 kW	67 in.
PXPCFA23030*	LCDI 230V 30A Cord - 5.0 kW	67 in.
PXPCFA26515	Non-LCDI 265V 15A Cord - 2.5 kW	27 1/2 in.
PXPCFA26520	Non-LCDI 265V 20A Cord - 3.5 kW	27 1/2 in.
PXPCFA26530*	Non-LCDI 265V 30A Cord - 5.0 kW	27 1/2 in.

PXFTB

Antimicrobial air filters. 10 pack. Each PTAC requires 2 filters.

PXFAFT10

Replacement Merv 8 filters. 10 pack. Each PTAC requires 1 filter.

CONDENSATE DRAIN KIT

PXDR10

Attaches to the bottom of the wall sleeve for internal draining of condensate, or to the rear wall sleeve flange for external draining. Recommended for all units to remove excess condensate. 10 pack.

LATERAL DUCT ADAPTER

PDXDAA

Attaches to the Friedrich PTAC/PTHP unit to direct up to 35% of the total airflow to a second room. The unit-mounted duct plenum features a front-mounted aluminum grille that has two positions to provide the most optimal air direction. The air may be directed to either the left or the right of the unit through the supplied 3 $^1\!/^2$ " H x 7" W x 47" L plenum. Plenum may be cut to length by the installer. Kit includes duct plenum, front grille, 47" duct extension, duct discharge grille, duct end cap and all necessary mounting hardware.

LATERAL DUCT EXTENSION

PDXDEA

Additional 3 $^{1}/_{2}$ " H x 7" W x 47" L plenum used with the LATERAL DUCT ADAPTER. A maximum of three duct extensions may be used together. Note: Ducted airflow is reduced as duct length is increased.



PXGA



PXAA



PXSBA



PXSB



PXFTB



PXFAFT10



PXDR10



SPECIFICATIONS

PVH Series Cooling with Heat Pumps

Model		PVH09K	PVH12K
PERFORMANCE DATA:			
Cooling Capacity	Btu	9600/9400	12000/11800
Cooling Capacity Min./Max	Btu	6462-12099	7929-17142
Cooling Watts		815/800	1050/1035
Energy Efficiency Ratio	EER	11.8/11.8	11.4/11.4
Reverse Heating Capacity	Btu	8200/8500	11600/11800
Reverse Heating Capacity Min./Max.	Btu	5606-11475	6995-16187
Heating Watts		710/685	970/950
COP		3.51/3.51	3.57/3.58
Moisture Removal	Pts./Hr.	0.8	1.1
Sensible Heat Ratio		80%	78%
ELECTRICAL DATA:			
Voltage (1 PHASE, 60 Hz)		230/208	230/208
Volt Range		253-187	253-187
Current	Amps	4.4/4.5	4.5/5.0
Reverse Heat	Amps	4.0/4.1	4.6/4.9
Power Factor		0.80	0.96
Compressor LRA		N/A	N/A
Compressor RLA		3.2	4.1
Outdoor Fan Motor	HP	1/14	1/12
AIRFLOW DATA:			
Indoor CFM, HIGH		400	470
Indoor CFM, LOW		250	360
Vent CFM		N/A	N/A
PHYSICAL DATA:			
Sleeve Dimensions H x W x D	H x W x D 16" x 42" x 13 3/4" (all models)		
Dimensions with front H x W x D		16" x 42" x 21" (all models)	
Cut Out Dimensions H x W		16 1/4"x 42 1/4" (all models)	
Net Weight	Lbs.	114	121
Shipping Weight	Lbs.	136	133
R-410A Charge	Oz.	30.34	32.80

265V MODELS expected March 2018

Power Cord/Heater Ratings

		230/208V ELECTRIC HEATER RATING		
		(CONFIGURATION BASED ON POWER CORD)		
POWER CORD #	VOLTAGE	BRANCH CKT AMPS	MCA	WATTS
PXPCFA23015	230/208	15	13.9	2500
PXPCFA23020	230/208	20	19.9	3600
PXPCFA23030*	230/208	30	27.5	5000

^{*}Cannot be used on PVH09K3FA PXPCFA23020 comes standard on PTAC

Receptacles and Fuse Types

VOLTAGE	230V		
AMPS	15 20		30
HEATER SIZE	2.5 KW	3.5 KW	5.0 KW
RECEPTACLES	•	•	
NEMA# RECEPTACLE	6-15R	6-20R	6-30R
NEMA# PLUG	6-15P	6-20P	6-30P

Due to continuing research in new energy-saving technology, specifications are subject to change without notice. Warranty limited to installations in the United States, Puerto Rico, Mexico and Canada only. See warranty documentation for full details.









Friedrich Air Conditioning Co. I 10001 Reunion Place, Suite 500 I San Antonio, TX 78216 I 877.599.5665 www.friedrich.com

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