Friedrich

Product Profile

Packaged Terminal AIR CONDITIONERS

COOL ONLY | HEAT PUMPS | ELECTRIC HEAT

2009

- Over 40 standard features
- Exceptional energy efficiency
- Diamonblue anticorrosion treatment
- Digital temperature display
- Rated quietest by hotel guests
- One touch operation
- Quiet start/stop fan delay
- Internal diagnostic program
- Remote control operation
- Remote thermostat operation
- Desk control ready
- Ultraquiet air system
- Antimicrobial air filters
- Fits most ptac sleeves
- 5 Year limited warranty
- Ships individually palletized

COMMERCIAL GRADE

QUALITY

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Digital Control Features

DIGITAL TEMPERATURE READOUT	Room temperature is digitally monitored, providing for more precise control than conventional systems. The large, easy-to-read LED display can show either set-point or actual room temperature as selected by owner.
ONE-TOUCH OPERATION	When the unit is powered off, the unit can be returned directly to heating or cooling mode by pressing the 'Heat' or 'Cool' buttons without the confusing power up sequence of some controls. One-touch control takes guesswork out of unit control, delivering a more enjoyable experience and eliminating front-desk calls.
REMOTE CONTROL OPERATION	All 2008 "D" model and later PTAC units can be controlled by a wireless hand held remote control. The remote control places all of the controls of the PTAC unit conveniently in the palm of your guest's hands. The remote can operate from distances up to 25 feet away. The remote is sold seperately as accessory PDXRC.
INDIVIDUAL MODE & FAN CONTROL BUTTONS	By having separate control buttons and indicators for both fan and mode settings, the Friedrich digital control eliminates the confusion of previous digital PTACs. The accurate temperature setting provides greater guest comfort than other systems.
QUIET START/STOP FAN DELAY	The fan start and stop delays prevent abrupt changes in room acoustics due to the compressor energizing or stopping immediately. Upon call for cooling or heating, the unit fan will run for five seconds prior to energizing the compressor. Also, the fan off delay allows for "free cooling" by utilizing the already cool indoor coil to its maximum capacity by running for 30 seconds after the compressor.
REMOTE THERMOSTAT OPERATION	Some applications require the use of a wall-mounted thermostat. All new Friedrich PTACs may be switched from unit control to remote thermostat control easily without the need to order a special model or accessory kit.
INTERNAL DIAGNOSTIC PROGRAM	The new Friedrich digital PTAC features a self diagnostic program that can alert maintenance to component failures or operating problems. The internal diagnostic program saves properties valuable time when diagnosing running problems.
SERVICE ERROR CODE STORAGE	The self diagnosis program will also store error codes in memory if certain conditions occur and correct themselves such as extreme high or low operating conditions or activation of the room freeze protection feature. Storing error codes can help properties determine if the unit faced obscure conditions or if an error occurred and corrected itself.
CONSTANT COMFORT ROOM MONITORING	The on-board processor monitors time between demand cycles (heat or cool) and will cycle the fan every 9 minutes to sample the room condition and determine if the desired conditions are met. This allows the room to have similar benefits to a remote mounted thermostat without the complication or cost of a wall-mounted thermostat.
ELECTRONIC TEMPERATURE LIMITING	By limiting the operating range, the property can save energy by eliminating "max cool" or "max heat" situations common with older uncontrolled systems. The new electronic control allows owners to set operating ranges for both heating and cooling independently of one another.
ROOM FREEZE PROTECTION	When the PTAC senses that the indoor room temperature has fallen to 40˚F, the unit will cycle on the fan (high) and the electric strip heat to raise the room temperature to 46˚F, and then cycle off again. This feature works regardless of the mode selected and can be turned off. The control will also store the Room Freeze cycle in the service code memory for retrieval at a later date. This feature ensures that unoccupied rooms do not reach freezing levels where damage can occur to plumbing and fixtures.
RANDOM COMPRESSOR RESTART	Multiple compressors starting at once can often cause electrical overloads and premature unit failure. The random restart delay eliminates multiple units from starting at once following a power outage or initial power up. The compressor delay will range from 180 to 240 seconds.

General Product Features

DIAMONDBLUE CORROSION PROTECTION	Diamonblue corrosion protection comes standard on all models. Diamonblue protects the outdoor coil against deterioration, and extends the life of the unit.
DIGITAL DEFROST THERMOSTAT	The new Friedrich PTAC uses a digital thermostat to accurately monitor the outdoor coil conditions to allow the heat pump to run whenever conditions are correct. Running the PTAC in heat pump mode saves energy and reduces operating costs. The digital thermostat allows maximization of heat pump run time.
INSTANT HEAT HEAT PUMP MODE	Heat pump models will automatically run the electric heater to quickly bring the room up to temperature when initially energized, then return to heat pump mode. This ensures that the room is brought up to temperature quickly without the usual delay associated with heat pump units.
EVEN HEAT MONITORING	The digital control monitors indoor conditions to ensure that the room temperature is within five degrees of the setpoint. If necessary, the unit will cycle the electric heat to maintain the temperature. This feature ensures guest comfort by delivering the heating benefits of an electric heater while maintaining the efficiency benefits of a heat pump.
FAN CYCLE CONTROL	The owner may choose between fan cycling or fan continuous mode based on property preference. (Note: Even heat monitoring and quiet start/stop fan delay only operate in fan cycle mode) Fan continuous mode constantly circulates the air while the unit is 'ON'. Fan cycle will conserve energy by only operating the fan while the compressor or electric heater is operating.
EMERGENCY HEAT OVERRIDE	In the event of a compressor failure in heat pump mode, the compressor may be locked out to provide heat through the resistance heater. This feature ensures that even in the unlikely event of a compressor failure, the room temperature can be maintained until the compressor can be serviced.
DESK CONTROL READY	All Friedrich digital PTACs have low voltage terminals ready to connect a desk control energy management system. Controlling the unit from a remote location like the front desk can reduce energy usage and requires no additional accessories on the PTAC unit.
INDOOR COIL FROST SENSOR	The frost sensor protects the compressor from damage in the event that airflow is reduced or low outdoor temperatures cause the indoor coil to freeze. When the indoor coil reaches 30°F, the compressor is disabled and the fan continues to operate based on demand. Once the coil temperature returns to 45°F, the compressor returns to operation.
ULTRAQUIET AIR SYSTEM	Friedrich PD series units feature an indoor fan system design that reduces sound levels without lowering airflow or preventing proper air circulation.
HIGH EFFICIENCY	The Friedrich PTAC has been engineered so that all functional systems are optimized so that they work together to deliver the highest possible performance.
SINGLE MOTOR	Friedrich's single-motor design allows for enhanced outdoor airflow and simplifies the unit design without the need for redundant components.
ROTARY COMPRESSOR	High efficiency rotary compressors are used on all Friedrich PTACs to maximize durability and efficiency.
AUXILIARY FAN READY	The Friedrich PTAC features a 24V AC terminal for connection to an auxiliary fan that may be used to transfer air to adjoining rooms. Auxiliary fans can provide conditioning to multiple rooms without the need for multiple PTAC units.
ALUMINUM ENDPLATES	All Friedrich PTACs are built with .04" endplates made from aluminum as opposed to steel. The endplates are typically the most susceptible area for corrosion and aluminum is far more resistant to corrosion than even-coated steel.
TOP-MOUNTED ANTIMICROBIAL AIR FILTERS	All Friedrich PTAC return air filters feature an antimicrobial element that has proven to prevent mold and bacterial growth in laboratory testing. PDXFT replacement filter kits feature the same antimicrobial agent. All filters are washable, reusable and easily accessed from the top of the unit without the removal of the front cover.
FILTERED FRESH AIR INTAKE	Friedrich PTAC units are capable of introducing up to 70 CFM of outside air into the conditioned space. The outdoor air passes through a washable mesh filter to prevent debris from entering the airstream.

Chassis Specifications

PDE Series Chassis Specifications

	PDE07K	PDE07R	PDE09K	PDE09R	PDE12K	PDE12R	PDE15K	PDE15R
PERFORMANCE DATA								
Cooling BTUh	7500/7300	7500	9200/9000	9200	12200/12000	12200	15000/14800	15000
Power (Watts)	615/598	615	814/796	814	1140/1121	1140	1579/1578	1579
EER	12.2	12.2	11.3	11.3	10.7	10.7	9.5	9.5
Dehumidification	2.1	2.1	2.7	2.7	3.8	3.8	5.5	5.5
Sensible Heat Ratio	0.76	0.76	0.75	0.75	0.72	0.72	0.72	0.72
ELECTRICAL DATA								
Voltage (1 Phase, 60 Hz)	230/208	265	230/208	265	230/208	265	230/208	265
Volt Range	253-198	292-239	253-198	292-239	253-198	292-239	253-198	292-239
Current (Amps)	2.9	2.7	3.7	3.5	5.1	4.7	6.8	6.8
Power Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Amps L.R.	18	15	22.2	18.8	26.3	28	38	32
Amps F.L.	2.9	2.75	3.4	3.1	4.8	4.2	6.6	6.6
Horsepower	1/15	1/15	1/15	1/15	1/10	1/10	1/10	1/10
AIRFLOW DATA								
Indoor CFM, High	250	250	250	250	325	325	350	350
Indoor CFM, Low	200	200	200	200	260	260	280	280
Vent CFM	60	60	60	60	70	70	70	70
PHYSICAL DATA								
Dimensions	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5
Net Weight	105	105	112	112	120	120	125	125
Shipping Weight	123	123	130	130	138	138	143	143
R-22 Charge	31	31	30	30	34	34	34	34

PDH Series Chassis Specifications

	PDH07K	PDH07R	PDH09K	PDH09R	PDH12K	PDH12R	PDH15K	PDH15R
PERFORMANCE DATA:								
Cooling BTUh	7200/7000	7200	9100/8900	9100	12000/11800	12000	14700/14500	14700
Power (Watts) Cool	595/579	595	805/788	805	1165/1146	1165	1581/1559	1581
EER	12.1	12.1	11.3	11.3	10.3	10.3	9.3	9.3
Heat Pump BTUh	6400/6200	6400	8100/7900	8100	10400/10600	10600	13300/13100	13300
Power (Watts) Heat	568/550	568	791/772	791	1035/1016	1035	1344/1324	1344
COP	3.3	3.3	3.0	3.0	3.0	3.0	2.9	2.9
Dehumidification	2.1	2.1	2.7	2.7	3.8	3.8	5.5	5.5
Sensible Heat Ratio	0.76	0.76	0.75	0.75	0.72	0.72	0.72	0.72
ELECTRICAL DATA:								
Voltage (1 Phase, 60 Hz)	230/208	265	230/208	265	230/208	265	230/208	265
Volt Range	253-198	292-239	253-198	292-239	253-198	292-239	253-198	292-239
Current (Amps)	3.0	2.7	3.9	3.4	5.1	4.8	6.8	6
Heat Pump Amps	2.6	2.4	3.3	2.9	4.5	4.4	5.8	5.3
Power Factor	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Amps L.R.	18	14.8	22.2	18.8	26.3	28	38	32
Amps F.L.	2.9	2.75	3.4	3.1	4.8	4.2	6.6	5.4
Horsepower	1/15	1/15	1/15	1/15	1/10	1/10	1/10	1/10
AIRFLOW DATA:								
Indoor CFM, High	250	250	250	250	325	325	350	350
Indoor CFM, Low	200	200	200	200	260	260	280	280
Vent CFM	60	60	60	60	70	70	70	70
PHYSICAL DATA:								
Dimensions	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5	16 x 42 x 13.5
Net Weight	105	105	112	112	120	120	125	125
Shipping Weight	123	123	130	130	138	138	143	143
R-22 Charge	27.5	27.5	31	31	31.5	31.5	39	39

250 V Receptacles and Fuse Types			
AMPS	**15**	**20**	**30**
HEATER SIZE	**0, 2.5 kW**	**3.4 kW**	**5.0 kW**
RECEPTACLE			

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Cooling & Heating Performance

PDE - 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
PDE07	BTUh	8820	8483	7853	8400	7920	7305	8070	**7500**	6638	7560	6713	5918	6728	5790	5115
	WATTS	502	510	515	547	552	559	615	**615**	615	665	664	666	725	725	728
	AMPS	2.5	2.5	2.5	2.7	2.7	2.7	3	**3.0**	3	3.2	3.2	3.2	3.5	3.5	3.5
	SHR	0.52	0.71	0.95	0.53	0.73	0.97	0.53	**0.76**	0.98	0.55	0.8	0.98	0.57	0.86	0.97
PDE09	BTUh	10819	10405	9632	10304	9715	8961	9899	**9200**	8142	9274	8234	7259	8252	7102	6274
	WATTS	664	675	682	724	731	740	814	**814**	814	880	879	882	960	960	964
	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	0.51	0.7	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
PDE12	BTUh	14112	13572	12564	13440	12672	11688	12912	**12000**	10620	12096	10740	9468	10764	9264	8184
	WATTS	915	929	939	997	1007	1019	1121	**1121**	1121	1212	1211	1214	1322	1322	1327
	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	6	6
	SHR	0.49	0.67	0.9	0.5	0.7	0.92	0.51	**0.72**	0.92	0.52	0.76	0.93	0.54	0.81	0.92
PDE15	BTUh	17640	16965	15705	16800	15840	14610	16140	**15000**	13275	15120	13425	11835	13455	11580	10230
	WATTS	1288	1309	1323	1404	1418	1435	1579	**1579**	1579	1707	1705	1710	1862	1862	1870
	AMPS	5.5	5.5	5.6	5.9	5.9	5.9	6.6	**6.6**	6.6	7.1	7.1	7.1	7.7	7.7	7.8
	SHR	0.51	0.7	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

RATING POINT ARI 310/380

PDH - 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
PDH07	BTUh	8467	8143	7538	8064	7603	7013	7747	**7200**	6372	7258	6444	5681	6458	5558	4910
	WATTS	486	493	499	529	534	541	595	**595**	595	643	643	644	702	702	704
	AMPS	2.5	2.5	2.5	2.7	2.7	2.7	3	**3.00**	3	3.2	3.2	3.2	3.5	3.5	3.5
	SHR	0.52	0.71	0.95	0.53	0.73	0.97	0.53	**0.76**	0.98	0.55	0.8	0.98	0.57	0.86	0.97
PDH09	BTUh	10702	10292	9528	10192	9610	8863	9792	**9100**	8054	9173	8145	7180	8163	7025	6206
	WATTS	657	667	675	716	723	732	805	**805**	805	870	869	872	949	949	953
	AMPS	3.2	3.2	3.3	3.5	3.5	3.5	3.9	**3.90**	3.9	4.2	4.2	4.2	4.6	4.6	4.6
	SHR	0.51	0.7	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
PDH12	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	4.2	4.2	4.3	4.5	4.6	4.6	5.1	**5.10**	5.1	5.5	5.5	5.5	6	6	6
	SHR	0.49	0.67	0.9	0.5	0.7	0.92	0.51	**0.72**	0.92	0.52	0.76	0.93	0.54	0.81	0.92
PDH15	BTUh	17287	16626	15391	16464	15523	14318	15817	**14700**	13010	14818	13157	11598	13186	11348	10025
	WATTS	1290	1311	1325	1406	1420	1437	1581	**1581**	1581	1709	1707	1712	1864	1864	1872
	AMPS	5.5	5.5	5.6	5.9	5.9	5.9	6.6	**6.6**	6.6	7.1	7.1	7.1	7.7	7.7	7.8
	SHR	0.51	0.7	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

RATING POINT ARI 310/380

Extended Cooling Performance

		OUTDOOR DRY BULB TEMP. (DEGREES F)														
		37			42			**47**			52			57		
PDH07	BTUh		**5366**			**5663**			**6440**			**7053**			**7789**	
	WATTS		**536**			**545**			**568**			**577**			**610**	
	AMPS		**2.5**			**2.6**			**2.6**			**2.7**			**2.8**	
PDH09	BTUh		**6005**			**6399**			**8100**			**8647**			**9245**	
	WATTS		**710**			**721**			**791**			**796**			**807**	
	AMPS		**3.1**			**3.1**			**3.2**			**3.2**			**3.3**	
PDH12	BTUh		**7654**			**8451**			**10600**			**11172**			**12120**	
	WATTS		**905**			**940**			**1035**			**1065**			**1100**	
	AMPS		**3.8**			**3.9**			**4.3**			**4.5**			**4.7**	
PDH15	BTUh		**10530**			**10850**			**13300**			**14550**			**15940**	
	WATTS		**1237**			**1253**			**1344**			**1424**			**1488**	
	AMPS		**5.3**			**5.4**			**5.8**			**6.1**			**6.3**	

RATING POINT ARI 310/380

Electric Heat Data / Model Identification / Components / Dimensions

Electric Heat Data, PDE/PDH 07/09K/R

	PDE/PDH07K		PDE/PDH07R		PDE09K0	PDE/PDH09K		PDE/PDH09R	
HEATER WATTS	2500/2050	3400/2780	2500	3400	0 Kw	2500/2050	3400/2780	2500	3400
VOLTAGE	230/208		265		230/208	230/208		265	
HEATING BTUh	8500/7000	11600/9500	8500	11600	0	8500/7000	11600/9500	8500	11600
HEATING CURRENT (AMPS)	11.4/10.4	15.3/13.9	9.8	13.2	0	11.4/10.4	15.3/13.9	9.8	13.2
MINIMUM CIRCUIT AMPACITY	14.1	19.0	12.2	16.4	6.0	14.1	19	12.2	16.4
BRANCH CIRCUIT FUSE (AMPS)	15	20	15	20	15	15	20	15	20

Electric Heat Data, PDE/PDH 12/15K/R

	PDE12K0	PDE/PDH12K			PDE/PDH12R			PDE15K0	PDE/PDH15K		PDE/PDH15R	
HEATER WATTS	0 Kw	2500/2050	3400/2780	5000/4090	2500	3400	5000	0 Kw	3400/2780	5000/4090	3400	5000
VOLTAGE	230/208	230/208			265			230/208	230/208		265	
HEATING BTUh	0	8500/7000	11600/9500	17000/13900	8500	11600	17000	0	11600/9500	17000/13900	11600	17000
HEATING CURRENT (AMPS)	0	11.4/10.4	15.3/13.9	22.3/20.3	9.8	13.2	19.5	0	15.3/13.9	22.3/20.3	13.2	19.5
MINIMUM CIRCUIT AMPACITY	7.6	14.1	19	27.8	12.2	16.4	24.2	8.5	19	27.8	16.4	24.2
BRANCH CIRCUIT FUSE (AMPS)	15	15	20	30	15	20	30	15	20	30	20	30

PTAC/PTHP Model Identification Guide

PD H 07 K 3 S D 1

Series
PD = Friedrich Digital PTAC

System
X = Accessory
E = Cooling with or without electric heat
H = Heat Pump with Auxiliary Heat

NOMINAL CAPACITY
07 = 7,000 Btuh 12 = 12,000 Btuh
09 = 9,000 Btuh 15 = 15,000 Btuh

VOLTAGE
K = 230/208V - 1 Ph. - 60 Hz.
R = 265V - 1 Ph. - 60 Hz.

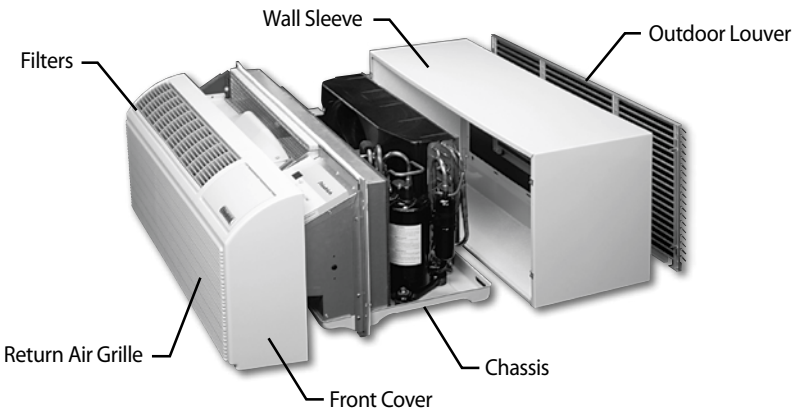
Engineering Digit

Design Series
Note: All PTAC models with a C design series or later come standard with Diamonblue seacoast protection and digital controls.

Chassis
S = Standard

Nominal Heater Size (@ 230V or 265V)
0 = No Heater (only on PDE09K, PDE12K AND PDE15K)
2 = 2.5 KW* 3 = 3.4 KW 5 = 5.0 KW**
* 2.5 kw only available on 7000, 9000, and 12000 BTU models
** 5.0 kw only available on 12000 and 15000 BTU models

Typical Unit Components and Dimensions

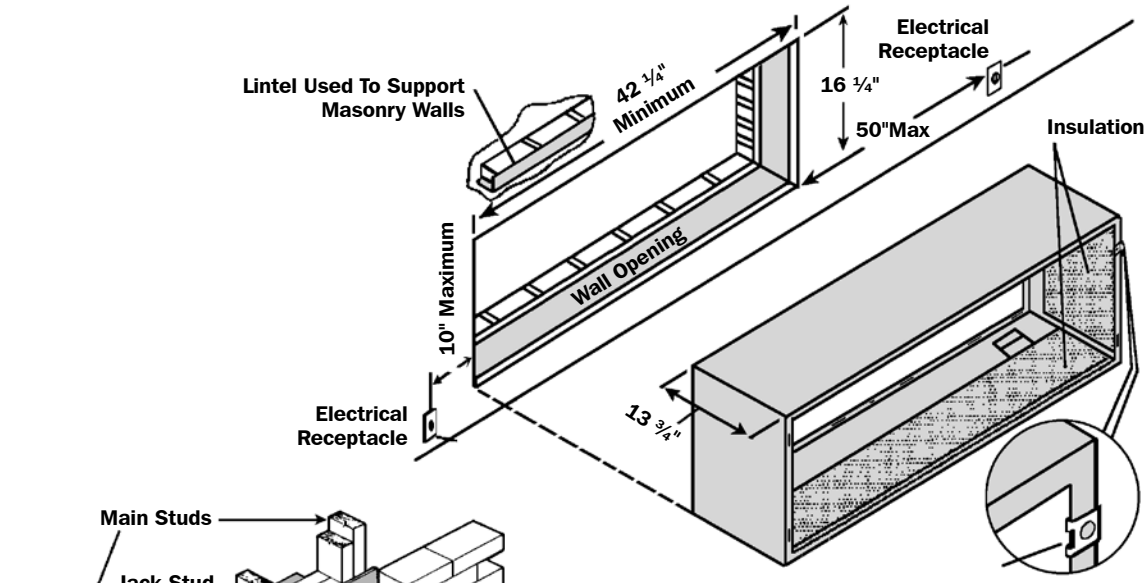


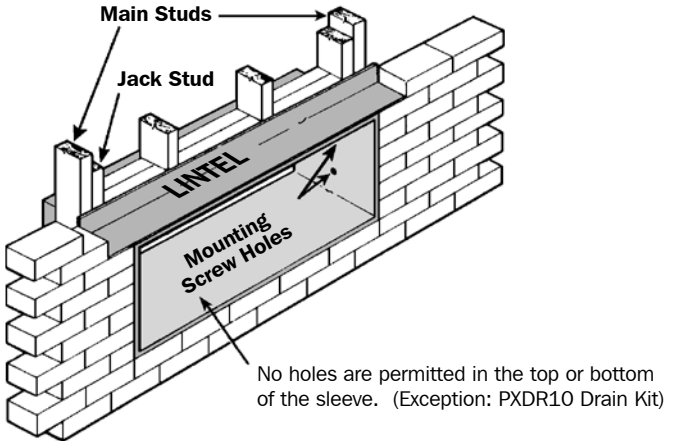
PDXWS Wall Sleeve Dimensions:
16" H x 42" W x 13 ¾" D

Front Cover Dimensions:
16" H x 42" W x 7 ½" D

Cut-Out Dimensions:
16 ¼" x 42 ¼"

Typical Wall Sleeve Installation (PDXWS)



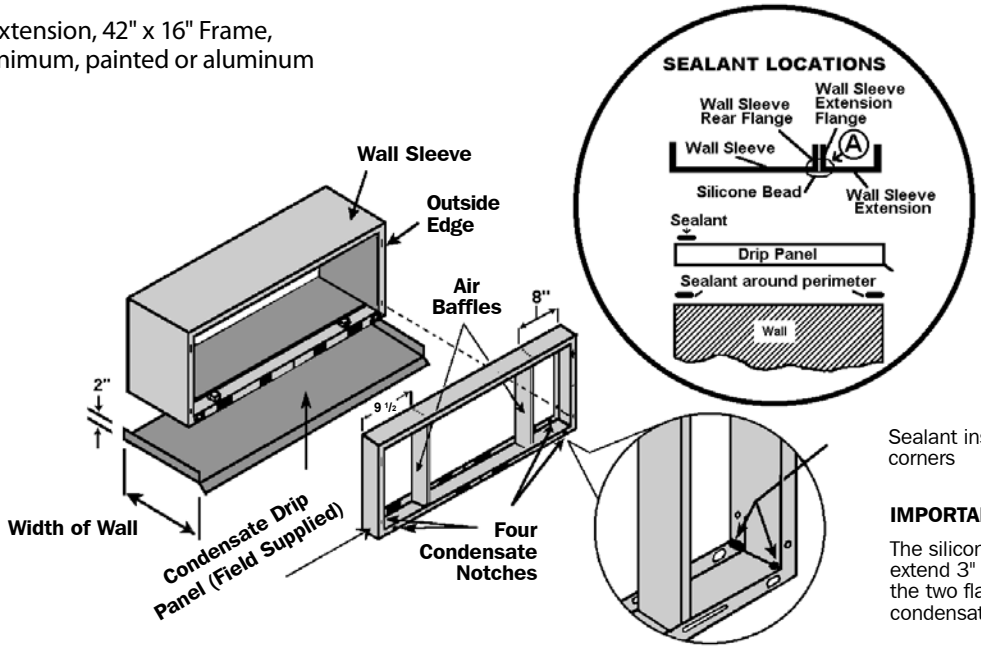


Note the use of a lintel under the first course of bricks above the wall sleeve. Do not use the wall sleeve as a lintel. The mounting screw holes shown are to be made by the installer.

Note: All 230/208V units are manufactured with a 60" power cord. The receptacle locations above must be followed to ensure proper connections.

Extended Wall Sleeve Installation and Sealant Locations (PXWE)

Wall Sleeve Extension, 42" x 16" Frame,
20-gauge minimum, painted or aluminum



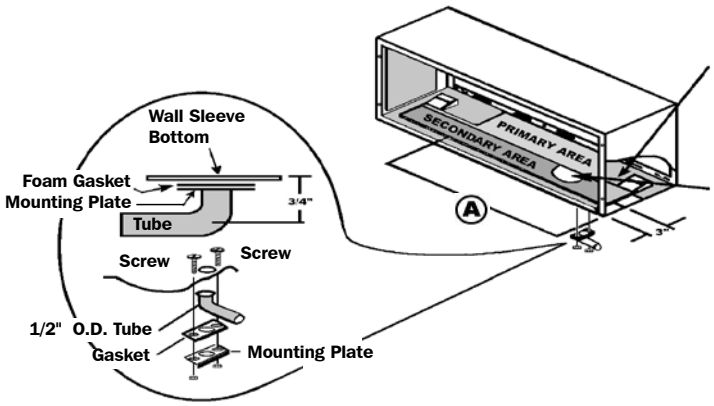
Sealant inside (4) bottom corners

IMPORTANT NOTE:

The silicone bead MUST extend 3" up the side of the two flanges to prevent condensate from leaking.

Accessory Installation

Internal Drain Kit Location and Installation (PXDR10)



PRIMARY AREA:
Condensation from the chassis collects in the sleeve in this area. The Primary Area is the preferred installation location.

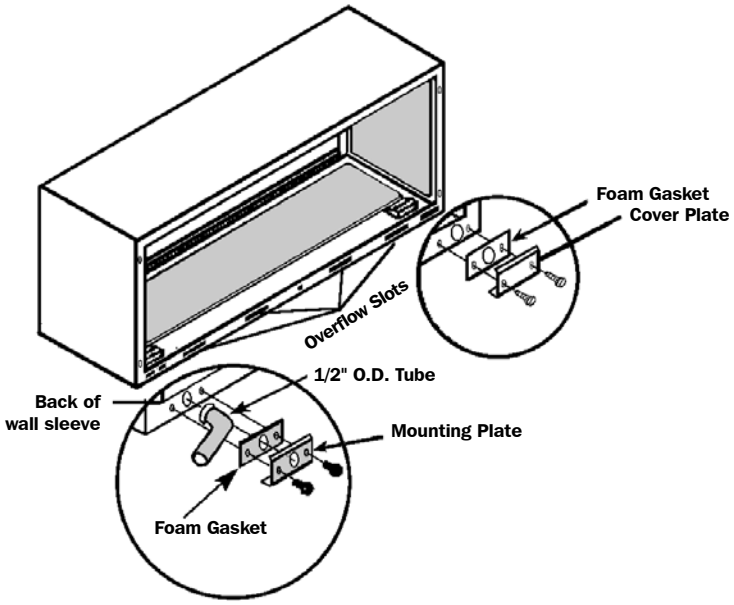
PXDR10 DRAIN KIT

External Drain

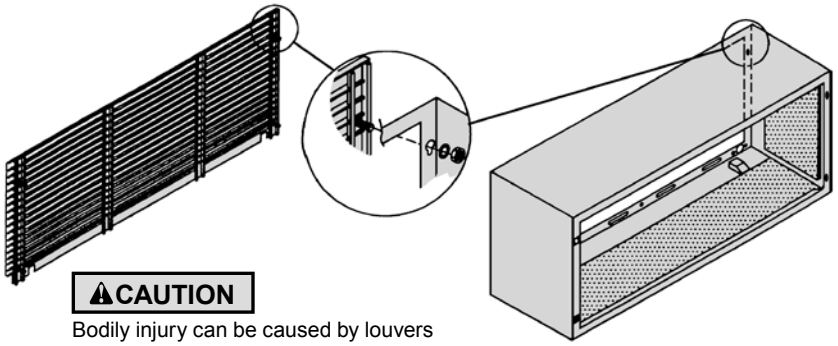
When using an external drain system, the condensate is removed through either of two drain holes on the back of the wall sleeve. Select the drain hole which best meets your drainage situation and install the drain kit. Seal off the other with a cover plate.

Place the drain tube through the gasket and the mounting plate with the flange toward the wall sleeve.

Attach the drain tube assembly to one of the two drain holes at the rear of the wall sleeve. The large flange on the mounting plate is positioned at the bottom of the sleeve facing toward the sleeve. When the drain tube is positioned at the desired angle, tighten the screws.



Architectural Louver Installation (PXAA)



⚠CAUTION

Bodily injury can be caused by louvers falling from a building during installation. It is recommended that a safety line be attached to the louver and an anchor point inside the building during installation.

INSTALLATION

1. Screw a threaded metal stud into each of the holes at the four corners of the louver.
2. From inside the building, grasp the louver at the vertical supports and maneuver the louver through the wall sleeve. Pull towards you until the threaded studs are inserted into the four holes of the wall sleeve.
3. While holding the louver with one hand, start washers and nuts on each of the four studs. Tighten the nuts securely.

HVAC Engineering Specifications

Digital Packaged Terminal Air Conditioners & Heat Pumps

Cooling: 7,200 – 15,000 Btuh

Heating: 6,400 – 13,700 Btuh (Heat Pump)
8,500 – 17,000 Btuh (Electric Heat)

Friedrich Models: PDE – Cooling with or without electric heat
PDH – Heat Pump with electric heat

All units shall be factory assembled, piped, wired and fully charged with R-22. All units shall be certified in accordance with ARI Standard 310 for air conditioners and ARI standard 380 for heat pumps. Units shall be UL listed and carry a UL label. All units shall be factory run-tested to check operation and be manufactured by Friedrich or equivalent.

The basic unit shall not exceed 16" high x 42" wide. Overall depth of the unit from the rear of the Friedrich wall sleeve to the front of the decorative front cover shall not exceed 21 ¼". The unit shall be designed so that room intrusion may be as little as 7 ½". Installations in walls deeper than 13 ¼" may be accomplished with the use of a wall sleeve extension (PXWE). Unit shall draw in ambient air through both sides of an outdoor architectural louver or grille measuring 42" wide x 16" high and shall exhaust air out middle portion of the louver. The architectural louver and wall sleeve shall be designed so that the louver may be installed from the inside of the building.

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 ¾" dia. x 1 ½" 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 and have a drain pan capable of retaining 1 ½ gallons of condensate. A tertiary condensate removal system shall also be incorporated for back up and shall overflow through the wall sleeve and to the outside of the building as a safeguard against damage to the interior room.

AIR HANDLING SECTION – The evaporator and condenser fans shall be directly driven by a single, totally enclosed, ball bearing, permanently lubricated split capacitor, "clam-shell" style fan motor. Airflow shall be directed into the room by a single, injection molded, high-impact polystyrene discharge grille. The grille shall have openings no larger than ⅜" high x 3" wide to prevent personal injury or damage to the PTAC unit, and will be reversible to allow air to be directed upward or outward as determined by the installer.

The chassis shall have a built-in damper capable of providing at least 60 CFM of fresh air into the conditioned area. A removable fine mesh screen shall filter the incoming fresh air. There must be a provision for locking the damper closed to ensure a proper seal.

CONTROLS – Covered controls shall be accessible in a compartment at least 9" wide with the controls no deeper than 1 ¼" in the opening to facilitate easy operation of the unit.

The unit controls shall feature an LED readout that can display either room temperature or setpoint temperature. The unit shall receive input from the SMART CENTER® control panel through push buttons labeled: 'Cool', 'Heat', 'High Fan', 'Low Fan', '^', 'v' and 'Power'. When 'Off', the unit may be put directly into cooling or heating mode by pressing the 'Cool' or 'Heat' button.

The unit must have the following energy saving and convenience features built-in:

- Quiet start/stop fan delay
- Room freeze protection
- Random compressor restart
- Electronic temperature limiting
- Wireless remote control ready
- Internal diagnostics
- Service code storage
- Constant comfort room monitoring
- Instant heat heat pump mode
- Desk control terminals
- Indoor coil frost sensor
- Auxiliary fan control

The PTAC must also offer the ability to be controlled by a remote wall-mounted thermostat without additional accessories. Low voltage inputs will include: C (common), R (24V power), Y (cooling), GL (fan low), GH (fan high), W (heat) and B (reversing valve on PDH heat pumps only).

The PTAC unit must also be able to be controlled by an optional hand held wireless remote control. The remote control shall be capable of all basic control functions of the PTAC including: power on/off, cooling, heating, fan speed and temperature setting.

Other controls accessible without removal of the chassis shall include fan cycle switch, fresh air vent control and emergency heat override switch (heat pump only).

GENERAL CONSTRUCTION – The wall sleeve shall be constructed of 18-gauge Galvanized zinc-coated steel. It shall be prepared by a process where it is zinc phosphate pretreated and sealed with a chromate rinse, then powder coated with a polyester finish and oven cured for durability. The sleeve shall be shipped with a protective weatherboard and a structural center support, and be insulated for sound absorption and thermal efficiency. The grille or louver shall be shipped separately and made from stamped or extruded anodized aluminum. All louvers shall be in the horizontal plane.

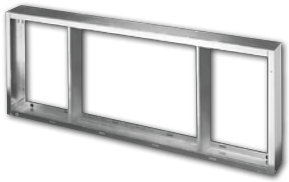
The front panel shall lock to the chassis by means of two factory-supplied thumbscrews to prevent tampering. The front panel will feature a contoured discharge with no sharp corners. The air filters shall be reusable and be accessible without removal of the front cover. The filters will feature an antimicrobial coating to prevent mold and bacterial growth.

All 265V units shall possess an integral, over-current time-delay protective device.

CORROSION PROTECTION – The unit shall have a corrosion-resistant fan, fan shroud and drain pan for corrosion protection and to prevent rust on the side of the building below the outdoor louver. The unit shall feature corrosion resistant materials and finishes to help prevent deterioration. The outdoor coil shall have Diamonblue corrosion protection consisting of hydrophilic coated fins to prolong the life of the coil in all applications including seacoast environments.

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

Accessories

New Construction Accessories		
PDXWS	**WALL SLEEVE** Galvanized zinc coated steel is prepared in an 11-step process, then powder coated with a polyester finish and cured in an oven for exceptional durability. The wall sleeve is insulated for sound absorption and thermal efficiency. 16" High x 42" Wide x 13 ¾" Deep.	
PXGA	**GRILLE** Standard, stamped aluminium, anodized to resist chalking and oxidation.	 *PXAA*
PXAA **PXBG** **PXSC**	**ARCHITECTURAL GRILLES** Consist of heavy-gauge 6063-T5 aluminum alloy: PXAA– Clear, extruded aluminum PXBG– Beige acrylic enamel PXSC– Also available in custom colors.	
PXDR10	**CONDENSATE DRAIN KIT** Attaches to the bottom of the wall sleeve for internal draining of condensate or to the rear wall sleeve flange for external draining. Recommended on all units to remove excess condensate. Packaged in quantities of ten.	
PXWE	**DEEP WALL SLEEVE EXTENSION** A four-inch deep anodized aluminium extension that attaches to the outside of the wall sleeve when the wall is greater than 11 inches thick (9 ½" when a subbase is used, 10 inches when a lateral duct is used). Up to three extensions my be used together.	
PXSB	**DECORATIVE SUBBASE** 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, or conduit kit.	
RT4	**DIGITAL REMOTE WALL THERMOSTAT** Single stage thermostat used on PTAC units. Hard wired with single speed fan. Direct replacement for RT2.	
RT5	**DIGITAL REMOTE WALL THERMOSTAT** Single stage thermostat features high/low fan speed switch. Thermostat is hard wired and can be battery powered or unit powered. Features backlit display and multiple configuration modes. For use on PD-series Friedrich PTACs and Vert-I-Paks.	
PDXRT	**REMOTE THERMOSTAT ESCUTCHEON KIT** This kit contains ten escutcheons that can be placed over the factory control buttons when a remote wall mounted thermostat is used. The escutcheon directs the guest to the wall thermostat for operation and retains the LED window to display error codes and diagnostic information.	
PDXRC	**WIRELESS HAND HELD REMOTE CONTROL** This kit contains one remote control that can be used to operate any 2008 "D" model PTAC or newer. The remote control can be used to control all user functions of the PTAC unit including: power on/off, cool/heat/fan mode selection, fan speed and temperature setpoint. Each kit contains one remote control and a filler panel for use when the control door is removed.	

Additional Accessories

PXSE	**SLEEVE EXTENSION RETROFIT KIT** Galvanized zinc coated steel, 2.4" sleeve extension attached to the room side of the sleeve to allow for the installation of a PD-Series Friedrich PTAC in a T-Series sleeve.	
PDXDA	**LATERAL DUCT ADAPTER** Attaches to the PTAC/PTHP unit and provides a transition to direct up to 35% of the total CFM to a secondary room, either left or right of the unit. Kit includes duct plenum with discharge grille and internal baffle, adapter and end cap.	 *PDXDA*
PDXDE	**LATERAL DUCT EXTENSION** A three-foot insulated plenum that attaches to the left or right side of the duct adapter. The extension can be cut to length by the installer. Maximum allowable straight extension is 15 feet.	
PXCJ	**CONDUIT KIT WITH JUNCTION BOX** 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. *Required for 265V installations.	
PXPC 15/20/30	**POWER CORD RETROFIT** Replaces LCDI power cord on 230V models when unit is used with a subbase. PXPC15 is used with 15 amp 2.5 kW units. PXPC20 is used with 20 amp 3.4 kW units. PXPC30 is used with 30 amp 5.0 kW units.	 *PXPC30*

Friedrich Air Conditioning Company
P.O. Box 1540
San Antonio, TX 78295
210.357.4400
www.friedrich.com

PD-SERIES
PACKAGED TERMINAL 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. **When requesting service:** please have the model and serial number from your unit readily available.

Unless specified otherwise herein, the following applies: **PACKAGED TERMINAL AIR CONDITIONERS AND HEAT PUMPS**

LIMITED WARRANTY - FIRST YEAR (Eighteen (18) Months from the original date of purchase or twelve (12) months from installation). Any defect in the unit's 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-six (66) months from the date of purchase) ON THE SEALED REFRIGERATION SYSTEM. Any part of the sealed refrigeration system on the P-series 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 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.

Reasonable proof must be presented to establish the original purchase date, otherwise the beginning date of this certificate will be considered to be our shipment date plus sixty days. Replacement parts can be new or remanufactured. 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 inaccessible locations. 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 an 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 certificate. 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 limitations 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.

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

(10-07)