

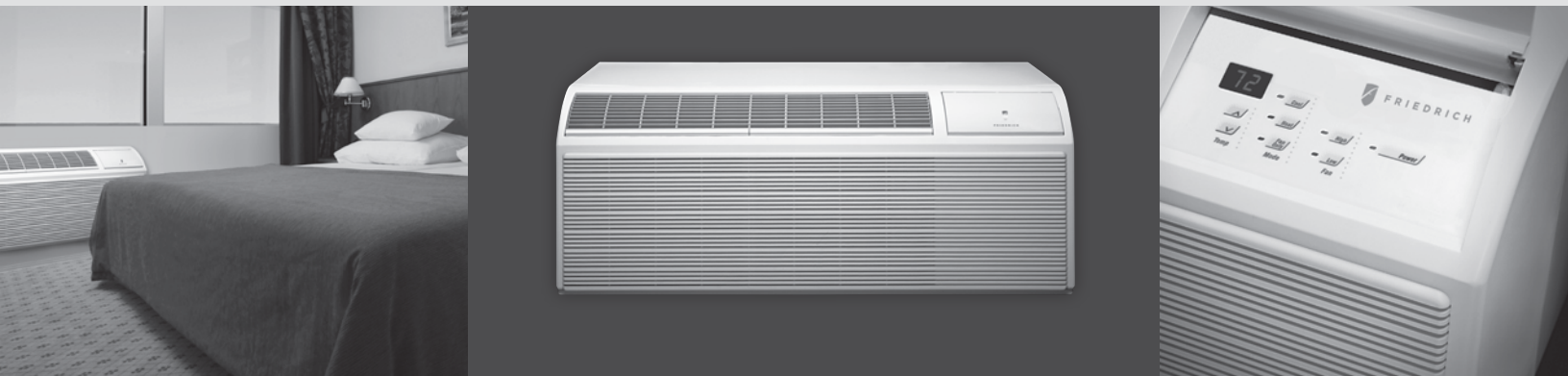


**F R I E D R I C H**

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# Product Profile

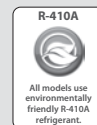
## Packaged Terminal Air Conditioners



**COOL ONLY | HEAT PUMPS | ELECTRIC HEAT**

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



**Q U A L I T Y**

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## Digital Control Features

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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 separately 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.

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## General Product Features

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DIAMONBLUE 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.
R-410A REFRIGERANT	Friedrich PTAC units use environmentally-friendly refrigerant.

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# Chassis Specifications

## PDE SERIES CHASSIS SPECIFICATIONS

MODEL	PDE07K	PDE07R	PDE09K	PDE09R	PDE12K	PDE12R	PDE15K	PDE15R
<b>PERFORMANCE DATA:</b>								
COOLING BTUh	7500/7300	7500	9000/8800	9000	11500/11300	11500	14000/13800	14000
POWER (WATTS)	647/629	658	789/772	818	1127/1108	1139	1505/1484	1505
EER	11.6	11.4	11.4	11.0	10.2	10.1	9.3	9.3
DEHUMIDIFICATION (pints/hr)	1.7	1.6	3.4	3.3	2.9	2.8	3.8	3.8
SENSIBLE HEAT RATIO	0.77	0.76	0.71	0.79	0.71	0.72	0.68	0.68
<b>ELECTRICAL DATA:</b>								
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)	3.3/3.4	2.9	3.6/3.9	3.3	5.5/5.8	4.6	7.0/7.4	6.4
POWER FACTOR	0.98	0.95	0.97	0.94	0.98	0.97	0.95	0.95
AMPS L.R.	13.0	15.0	19.8	16.8	27.0	23.0	32.0	27.0
AMPS F.L.	2.9	2.6	3.7	3.2	5.0	4.0	6.3	5.6
HORSEPOWER	0.625	0.625	0.75	0.75	1.0	1.0	1.1	1.1
<b>AIRFLOW DATA:</b>								
INDOOR CFM, HIGH	220	245	220	210	325	315	310	340
INDOOR CFM, LOW	200	200	200	200	260	260	280	280
VENT CFM	60	60	60	60	70	70	70	70
<b>PHYSICAL DATA:</b>								
DIMENSIONS	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5
NET WEIGHT	105	105	112	112	120	120	125	125
SHIPPING WEIGHT	125	125	132	132	140	140	145	145
R-410A CHARGE (oz)	42	35	36	35	33	35	48	42

## PDH SERIES CHASSIS SPECIFICATIONS

MODEL	PDH07K	PDH07R	PDH09K	PDH09R	PDH12K	PDH12R	PDH15K	PDH15R
<b>PERFORMANCE DATA:</b>								
COOLING BTUh	7300/7100	7200	8500/8300	8500	11500/11300	12000	14000/13800	14000
POWER (WATTS) cool	658/640	649	787/769	810	1173/1153	1237	1522/1500	1522
EER	11.1	11.1	10.8	10.5	9.8	9.7	9.2	9.2
REVERSE HEATING BTUh	6400	6300	8000	7700	10500	10500	12800	12800
POWER (WATTS) HEAT	625	615	781	752	1025	1025	1250	1250
COP	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3
DEHUMIDIFICATION (pints/hr)	1.3	1.3	1.9	2.1	2.8	2.9	3.6	3.7
SENSIBLE HEAT RATIO	0.78	0.78	0.73	0.71	0.72	0.72	0.7	0.72
<b>ELECTRICAL DATA:</b>								
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)	3.2/3.3	2.8	3.6/3.9	3.3	5.4/5.7	5.2	6.7/7.3	6.3
REVERSE HEAT. Amps	2.7/2.8	2.6	4.3/4.5	3.0	4.4/4.7	4.4	6.2/6.5	5.6
POWER FACTOR	0.98	0.97	0.97	0.95	0.97	0.97	0.96	0.95
AMPS L.R.	13.0	15.0	19.8	16.8	27.00	23.0	32.0	27.0
AMPS F.L.	2.9	2.6	3.7	3.2	5.0	4.5	6.3	5.6
HORSEPOWER	0.625	0.625	0.75	0.75	1.0	1.0	1.1	1.1
<b>AIRFLOW DATA:</b>								
INDOOR CFM, HIGH	210	240	220	210	320	310	315	330
INDOOR CFM, LOW	200	200	200	200	260	260	280	280
VENT CFM	60	60	60	60	70	70	70	70
<b>PHYSICAL DATA:</b>								
DIMENSIONS	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5
NET WEIGHT	105	105	112	112	120	120	125	125
SHIPPING WEIGHT	125	125	132	132	140	140	145	145
R-410A CHARGE (oz)	37	37	37	33	41	40	39	42

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



# Cooling & Heating Performance

## PDE 230V - 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	528	536	542	575	581	588	647	647	647	699	699	701	763	763	766
	AMPS	2.7	2.7	2.8	2.9	3.0	3.0	3.3	3.30	3.3	3.6	3.6	3.6	3.9	3.9	3.9
	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
PDE09	BTUh	10584	10179	9423	10080	9504	8766	9684	9000	7965	9072	8055	7101	8073	6948	6138
	WATTS	644	654	661	701	709	717	789	789	789	853	852	854	930	930	934
	AMPS	3.0	3.0	3.0	3.2	3.2	3.2	3.6	3.60	3.6	3.9	3.9	3.9	4.2	4.2	4.2
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	0.71	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE12	BTUh	13524	13007	12041	12880	12144	11201	12374	11500	10178	11592	10293	9074	10316	8878	7843
	WATTS	920	934	944	1002	1012	1024	1127	1127	1127	1218	1217	1221	1329	1329	1334
	AMPS	4.6	4.6	4.6	4.9	4.9	5.0	5.5	5.50	5.5	5.9	5.9	5.9	6.5	6.5	6.5
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	0.71	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE15	BTUh	16464	15834	14658	15680	14784	13636	15064	14000	12390	14112	12530	11046	12558	10808	9548
	WATTS	1228	1248	1261	1338	1351	1368	1505	1505	1505	1627	1625	1630	1774	1774	1782
	AMPS	5.8	5.8	5.9	6.2	6.3	6.3	7.0	7.00	7.0	7.5	7.5	7.6	8.2	8.2	8.2
	SHR	0.47	0.63	0.85	0.48	0.66	0.87	0.48	0.68	0.87	0.49	0.72	0.88	0.51	0.77	0.87

RATING POINT  
ARI 310/380

## PDH 230V - 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	8585	8256	7643	8176	7709	7110	7855	7300	6461	7358	6534	5760	6548	5636	4979
	WATTS	537	545	551	585	591	598	658	658	658	711	711	713	776	776	779
	AMPS	2.6	2.7	2.7	2.9	2.9	2.9	3.2	3.20	3.2	3.4	3.4	3.5	3.8	3.8	3.8
	SHR	0.53	0.73	0.98	0.55	0.75	1.00	0.55	0.78	1.00	0.56	0.82	1.01	0.59	0.88	1.00
PDH09	BTUh	9996	9614	8900	9520	8976	8279	9146	8500	7523	8568	7608	6707	7625	6562	5797
	WATTS	642	652	660	700	707	715	787	787	787	851	850	852	928	928	932
	AMPS	3.0	3.0	3.0	3.2	3.2	3.2	3.6	3.60	3.6	3.9	3.9	3.9	4.2	4.2	4.2
	SHR	0.5	0.68	0.91	0.51	0.71	0.93	0.51	0.73	0.94	0.53	0.77	0.94	0.55	0.82	0.93
PDH12	BTUh	13524	13007	12041	12880	12144	11201	12374	11500	10178	11592	10293	9074	10316	8878	7843
	WATTS	957	972	983	1043	1053	1066	1173	1173	1173	1268	1267	1270	1383	1383	1389
	AMPS	4.5	4.5	4.5	4.8	4.8	4.9	5.4	5.40	5.4	5.8	5.8	5.8	6.3	6.3	6.4
	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	16464	15834	14658	15680	14784	13636	15064	14000	12390	14112	12530	11046	12558	10808	9548
	WATTS	1242	1262	1275	1353	1367	1383	1522	1522	1522	1645	1644	1648	1794	1794	1802
	AMPS	5.5	5.6	5.6	6.0	6.0	6.0	6.7	6.7	6.7	7.2	7.2	7.2	7.9	7.9	7.9
	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	0.9

RATING POINT  
ARI 310/380

## EXTENDED HEATING PERFORMANCE

		OUTDOOR DRY BULB TEMP. (DEGREES F)				
		37	42	47	52	57
PDH07	BTUh	5333	5628	6400	7009	7741
	WATTS	589	600	625	635	671
	AMPS	2.6	2.8	2.75	2.9	3
PDH09	BTUh	5930	6320	8000	8540	9130
	WATTS	701	712	781	786	797
	AMPS	3.8	3.8	3.9	3.9	4
PDH12	BTUh	7582	8372	10500	11067	12006
	WATTS	896	931	1025	1055	1089
	AMPS	4.2	4.3	4.7	4.9	5.1
PDH15	BTUh	10134	10442	12800	14003	15341
	WATTS	1151	1166	1250	1324	1384
	AMPS	5.7	5.8	6.3	6.6	6.9

RATING POINT  
ARI 310/380

# Cooling & Heating Performance

## PDE 265V - 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	537	545	551	585	591	598	658	658	658	711	711	713	776	776	779
	AMPS	2.4	2.4	2.4	2.6	2.6	2.6	2.9	2.90	2.9	3.1	3.1	3.1	3.4	3.4	3.4
	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	10584	10179	9423	10080	9504	8766	9684	9000	7965	9072	8055	7101	8073	6948	6138
	WATTS	667	678	685	727	735	744	818	818	818	884	883	886	964	964	969
	AMPS	2.7	2.7	2.8	2.9	3.0	3.0	3.3	3.30	3.3	3.6	3.6	3.6	3.9	3.9	3.9
	SHR	0.54	0.74	0.99	0.55	0.76	1.01	0.56	0.79	1.01	0.57	0.83	1.02	0.6	0.89	1.01
PDE12	BTUh	13524	13007	12041	12880	12144	11201	12374	11500	10178	11592	10293	9074	10316	8878	7843
	WATTS	929	944	954	1013	1023	1035	1139	1139	1139	1231	1230	1234	1343	1343	1349
	AMPS	3.8	3.8	3.9	4.1	4.1	4.1	4.6	4.60	4.6	4.9	4.9	5.0	5.4	5.4	5.4
	SHR	0.49	0.67	0.90	0.50	0.70	0.92	0.51	0.72	0.92	0.52	0.76	0.93	0.54	0.81	0.92
PDE15	BTUh	16464	15834	14658	15680	14784	13636	15064	14000	12390	14112	12530	11046	12558	10808	9548
	WATTS	1228	1248	1261	1338	1351	1368	1505	1505	1505	1627	1625	1630	1774	1774	1782
	AMPS	5.3	5.3	5.4	5.7	5.7	5.8	6.4	6.40	6.4	6.9	6.9	6.9	7.5	7.5	7.5
	SHR	0.47	0.63	0.85	0.48	0.66	0.87	0.48	0.68	0.87	0.49	0.72	0.88	0.51	0.77	0.87

RATING POINT  
ARI 310/380

## PDH 265V - 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	530	538	544	577	583	590	649	649	649	702	701	703	765	765	768
	AMPS	2.3	2.3	2.4	2.5	2.5	2.5	2.8	2.80	2.8	3.0	3.0	3.0	3.3	3.3	3.3
	SHR	0.53	0.73	0.98	0.55	0.75	1.00	0.55	0.78	1.00	0.56	0.82	1.01	0.59	0.88	1.00
PDH09	BTUh	9996	9614	8900	9520	8976	8279	9146	8500	7523	8568	7608	6707	7625	6562	5797
	WATTS	661	671	679	720	727	736	810	810	810	876	875	877	955	955	959
	AMPS	2.7	2.7	2.8	2.9	3.0	3.0	3.3	3.30	3.3	3.6	3.6	3.6	3.9	3.9	3.9
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	0.71	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDH12	BTUh	14112	13572	12564	13440	12672	11688	12912	12000	10620	12096	10740	9468	10764	9264	8184
	WATTS	1009	1025	1037	1100	1111	1124	1237	1237	1237	1337	1336	1340	1458	1458	1465
	AMPS	4.3	4.3	4.4	4.6	4.7	4.7	5.2	5.20	5.2	5.6	5.6	5.6	6.1	6.1	6.1
	SHR	0.49	0.67	0.90	0.50	0.70	0.92	0.51	0.72	0.92	0.52	0.76	0.93	0.54	0.81	0.92
PDH15	BTUh	16464	15834	14658	15680	14784	13636	15064	14000	12390	14112	12530	11046	12558	10808	9548
	WATTS	1242	1262	1275	1353	1367	1383	1522	1522	1522	1645	1644	1648	1794	1794	1802
	AMPS	5.2	5.2	5.3	5.6	5.6	5.7	6.3	6.3	6.3	6.8	6.8	6.8	7.4	7.4	7.4
	SHR	0.49	0.67	0.90	0.50	0.70	0.92	0.51	0.72	0.92	0.52	0.76	0.93	0.54	0.81	0.92

RATING POINT  
ARI 310/380

## Extended Heating Performance

		OUTDOOR DRY BULB TEMP. (DEGREES F)				
		37	42	47	52	57
PDH07	BTUh	5250	5540	6300	6900	7620
	WATTS	580	590	615	625	660
	AMPS	2.5	2.6	2.6	2.7	2.8
PDH09	BTUh	5708	6083	7700	8220	8788
	WATTS	675	686	752	757	767
	AMPS	2.9	2.9	3.0	3.0	3.1
PDH12	BTUh	7582	8372	10500	11067	12006
	WATTS	896	931	1025	1055	1089
	AMPS	3.9	4	4.4	4.6	4.8
PDH15	BTUh	10134	10442	12800	14003	15341
	WATTS	1151	1166	1250	1324	1384
	AMPS	5.1	5.2	5.6	5.9	6.1

RATING POINT  
ARI 310/380

# Electric Heat Data

## Electric Heat Data

	PDE/PDH07K		PDE/PDH07R	
Heater WATTS	2500/2050	3400/2780	2500	3400
Voltage	230/208		265	
Heating BTUh	8500/7000	11600/9500	8500	11600
Heating current (AMPS)	11.4/10.4	15.3/13.9	9.8	13.2
Minimum circuit ampacity	14.1	19.0	12.2	16.4
Branch circuit fuse (AMPS)	15	20	15	20

## Electric Heat Data

	PDE/PDH09K				PDE/PDH09R		
Heater WATTS	0 Kw	2500/2050	3400/2780	5000/4090	2500	3400	5000
Voltage	230/208				265		
Heating BTUh	0	8500/7000	11600/9500	17000/13900	8500	11600	17000
Heating current (AMPS)	0	11.4/10.4	15.3/13.9	22.3/20.3	9.8	13.2	19.5
Minimum circuit ampacity	5.2	14.1	19	27.8	12.2	16.4	24.2
Branch circuit fuse (AMPS)	15	15	20	30	15	20	30

## Electric Heat Data

	PDE/PDH12K				PDE/PDH12R		
Heater WATTS	0 Kw	2500/2050	3400/2780	5000/4090	2500	3400	5000
Voltage	230/208				265		
Heating BTUh	0	8500/7000	11600/9500	17000/13900	8500	11600	17000
Heating current (AMPS)	0	11.4/10.4	15.3/13.9	22.3/20.3	9.8	13.2	19.5
Minimum circuit ampacity	7.9	14.1	19	27.8	12.2	16.4	24.2
Branch circuit fuse (AMPS)	15	15	20	30	15	20	30

## Electric Heat Data

	PDE/PDH15K				PDE/PDH15R		
Heater WATTS	0 Kw	2500/2050	3400/2780	5000/4090	2500	3400	5000
Voltage	230/208				265		
Heating BTUh	0	8500/7000	11600/9500	17000/13900	8500	11600	17000
Heating current (AMPS)	0	11.4/10.4	15.3/13.9	22.3/20.3	9.8	13.2	19.5
Minimum circuit ampacity	8.5	14.1	19	27.8	12.2	16.4	24.2
Branch circuit fuse (AMPS)	15	15	20	30	15	20	30

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



# Model Identification / Components / Dimensions

## PTAC/PTHP Model Identification Guide

PD H 07 K 3 S E A

**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 Diamondblue 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

Filters

Wall Sleeve

Outdoor Louver

Return Air Grille

Front Cover

Chassis

**PDXWS Wall Sleeve Dimensions:**  
16" H x 42" W x 13 3/4" D

**Front Cover Dimensions:**  
16" H x 42" W x 7 1/2" D

**Cut-Out Dimensions:**  
16 1/4" x 42 1/4"





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

ITEM	PLAN DESIGNATION	QUANTITY	COOLING BTU/H	VOLTAGE	FRIEDRICH MODEL

Accessories

PDXWS	Wall Sleeve	Qty	
PXWE	Deep Wall Extension	Qty	
PXGA	Standard Outdoor Louver	Qty	
PXAA	Architectural Louver, clear	Qty	
PXBG	Architectural Louver, beige	Qty	
PXSC	Architectural Louver, color matched	Qty	
RT4	Digital Thermostat	Qty	
RT5	Digital Thermostat	Qty	
PDXRT	Remote Thermostat Escutcheon Kit	Qty	

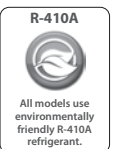
PDXRC	Remote Control	Qty	
PXDR10	Condensate Drain Kit (pkg/10)	Qty	
PXSB	Sub Base	Qty	
PXSE	T-Series Sleeve Adapter	Qty	
PXCJ	Conduit Kit w/Junction Box	Qty	
PDXDA	Lateral Duct Adapter	Qty	
PDXDE	Lateral Duct Extension	Qty	
PXPC15/20/30	Sub Base Power Cord Kit	Qty	

Features

- Electronic temperature limiting
- Constant comfort room monitoring
- Desk control ready
- Auxiliary fan ready
- Remote thermostat operation
- "Instant Heat" heat pump mode
- Remote control operation
- Even heat monitoring
- Random compressor restart
- High efficiency
- Room freeze protection
- Filtered fresh air intake
- Fan cycle control
- Electronic defrost control
- Ships individually palletized
- Single motor design
- Service error code storage
- Top-mounted antimicrobial air filters
- Emergency heat override
- Durable design
- Powder coat paint process
- Aluminum endplates
- Indoor coil frost sensor
- Diamonblue Technology advanced corrosion protection



OPTIONAL REMOTE

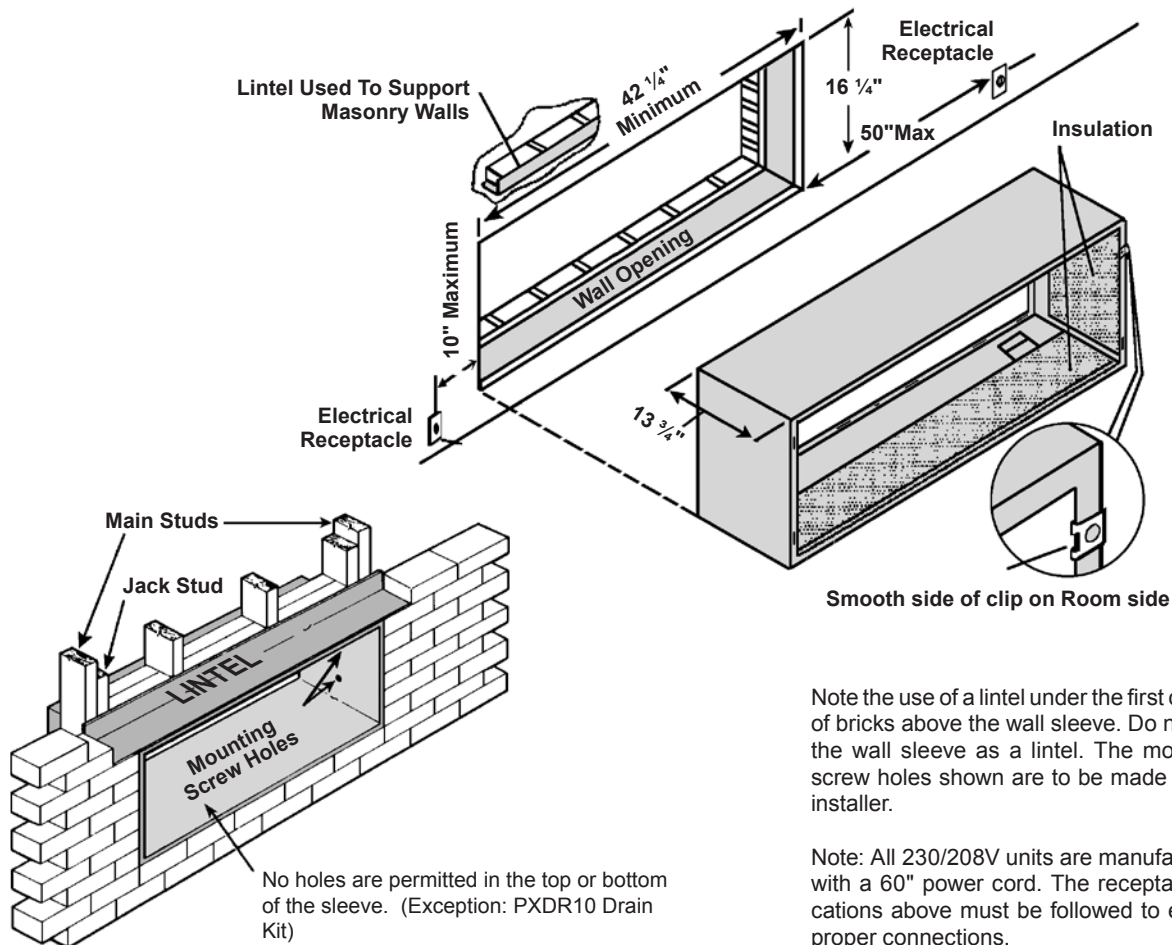


**DiamonblueTechnology**  
PROTECTS AGAINST CORROSION AND EXTENDS THE LIFE OF THE UNIT

**STANDARD ON ALL MODELS.**  
This advanced corrosion protection treatment protects the outdoor coil against deterioration and extends the life of the unit especially in harsh coastal environments.

# Installation

## Typical Wall Sleeve Installation (PDXWS)

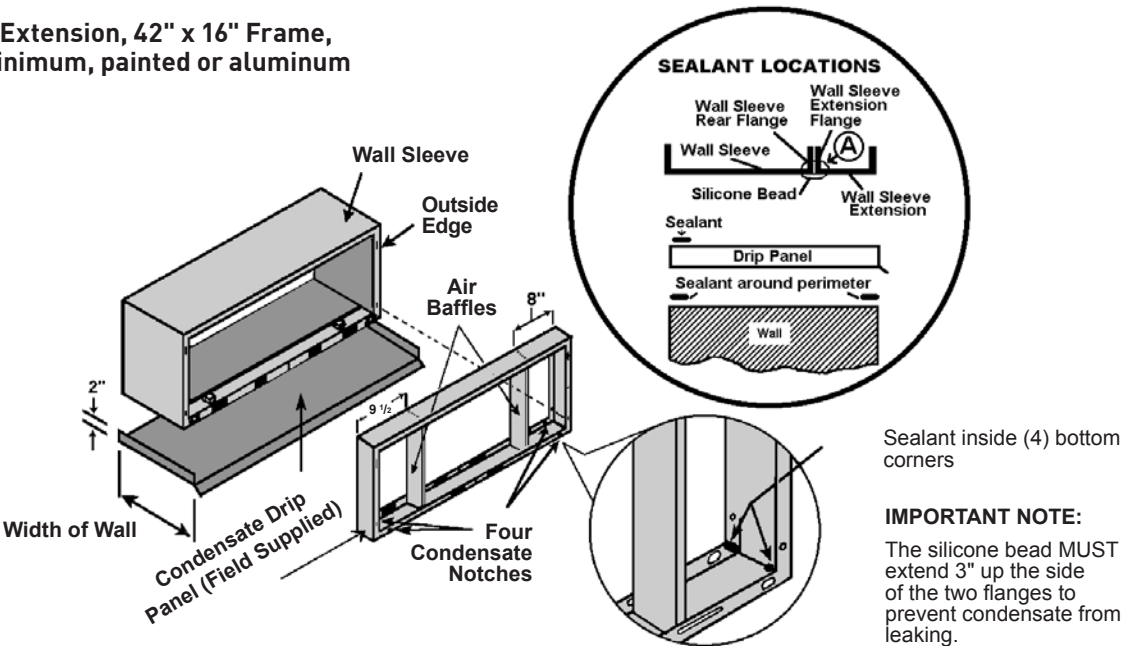


Note the use of a lintel under the first course of bricks above the wall sleeve. Do not use the wall sleeve as a lintel. The mounting screw holes shown are to be made by the installer.

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

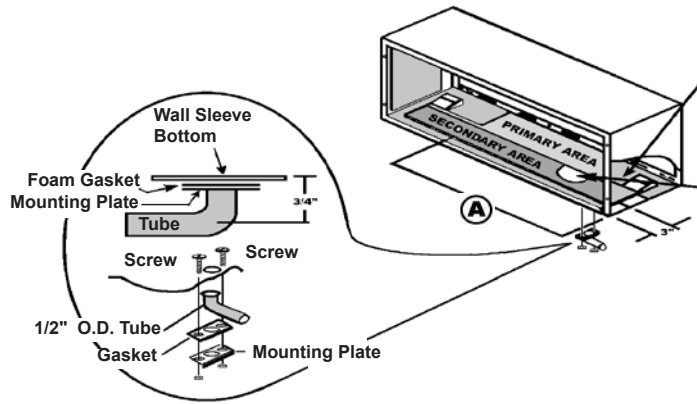
## Extended Wall Sleeve Installation and Sealant Locations (PXWE)

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



# 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.

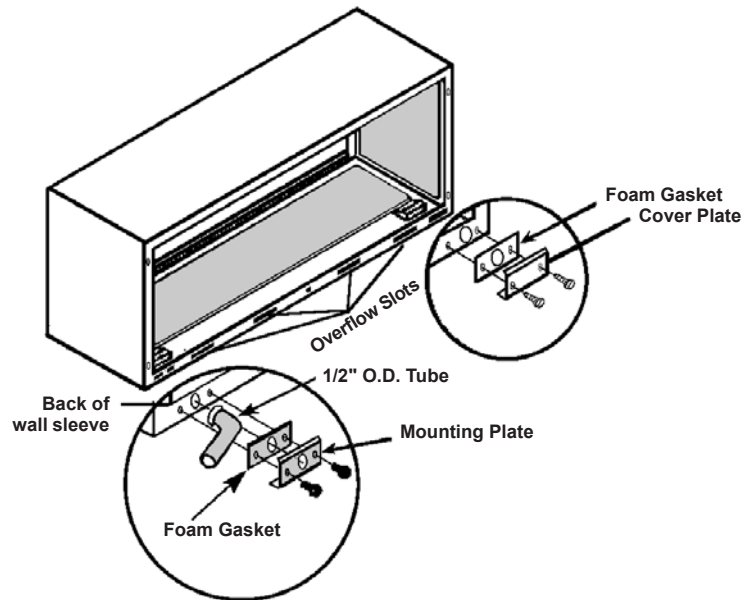


## External Drain

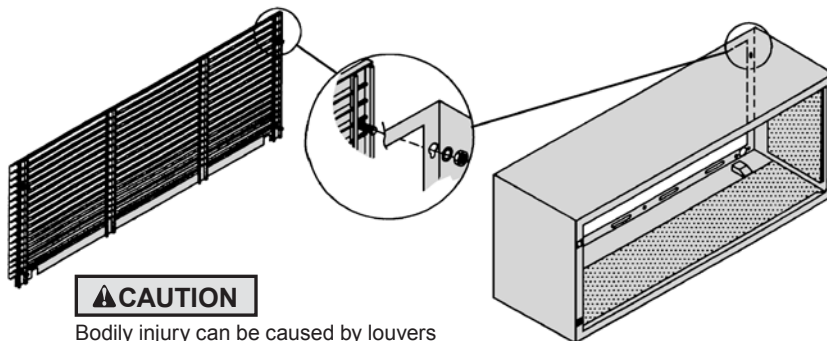
When using an external drain system, the condensate is removed through either of two drain holes on the back of the wall sleeve. Select the drain hole which best meets your drainage situation and install the drain kit. Seal off the other with a cover plate.

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: 7,100 – 14,000 Btuh

Heating: 7,000 – 13,900 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-410A. 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 ¾" 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 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', '▲', '▼' 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 start
- Electronic temperature limiting
- Wireless remote control ready
- Internal diagnostics
- Service code storage
- Constant comfort room monitoring
- Instant 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	<b>WALL SLEEVE</b> 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	<b>GRILLE</b> Standard, stamped aluminium, anodized to resist chalking and oxidation.	
PXAA PXBG PXSC	<b>ARCHITECTURAL GRILLES</b> Consist of heavy-gauge 6063-T5 aluminum alloy: PXAA– Clear, extruded aluminum PXBG– Beige acrylic enamel PXSC– Also available in custom colors.	 PXAA
PXDR10	<b>CONDENSATE DRAIN KIT</b> 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	<b>DEEP WALL SLEEVE EXTENSION</b> 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 may be used together.	
PXSB	<b>DECORATIVE SUBBASE</b> 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	<b>DIGITAL REMOTE WALL THERMOSTAT</b> Single stage thermostat used on PTAC units. Hard wired with single speed fan. Direct replacement for RT2.	
RT5	<b>DIGITAL REMOTE WALL THERMOSTAT</b> 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	<b>REMOTE THERMOSTAT ESCUTCHEON KIT</b> 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	<b>WIRELESS HAND HELD REMOTE CONTROL</b> 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







**F R I E D R I C H**

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. 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 PACKAGED TERMINAL 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 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 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 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.

**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.**

(10-09)