



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

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## Features

Tangential blower wheel for fast, even air distribution

Two permanently-lubricated fan motors for quiet operation

EERs up to 12.0; COPs up to 3.4

3 fan speeds heating and cooling

Separate thermostat settings (limiting) for cooling and heating modes allow for improved comfort

Internal diagnostic program

Remote thermostat operation

Desk control ready

Compatible with energy management systems

Reversible indoor air louvers

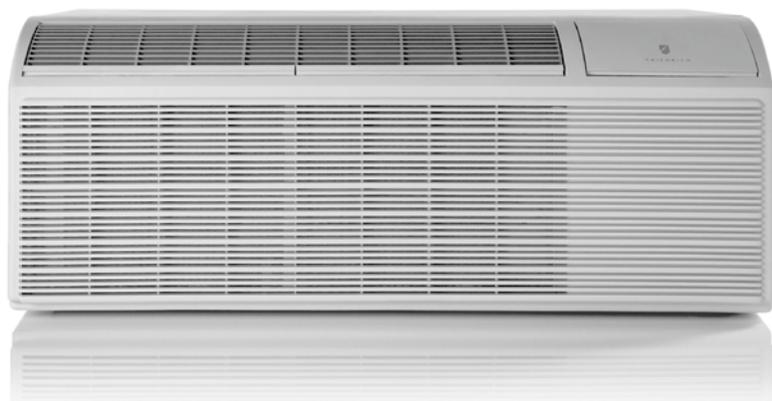
Antimicrobial air filters

Diamonblue anticorrosion treatment

Modular design ensures easy access to key components

Fits standard PTAC sleeve without added cost of a baffle kit

5 Year limited warranty



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QUALITY

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## Product Profile

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# PACKAGED TERMINAL AIR CONDITIONERS

COOL ONLY / HEAT PUMPS / ELECTRIC HEAT

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# Digital Control Features

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DIGITAL TEMPERATURE READOUT	By digitally monitoring desired room temperature, the room is controlled more precisely than conventional systems. The large, easy-to-read LED display can show either the 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.
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.
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

DIAMONBLUE TECHNOLOGY	Diamonblue seacoast protection protects the outdoor coil from harsh environments. Comes standard on all models.
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.
SEPARATE HEAT/COOL 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 is used to keep constant airflow circulation in the room during all times the unit is 'ON'. Fan cycle will conserve energy by only operating the fan while the compressor or electric heater is operating. The ability to set the fan cycling condition independently between heating and cooling mode will increase user comfort by allowing the choice of only constantly circulating air in the summer or winter time. Unlike other PTAC brands that only allow one selection.
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	The new 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.
DUAL MOTOR	With Friedrich's new dual-motor design the indoor motor can run at slower speeds which reduces sound levels indoors.
ROTARY COMPRESSOR	High efficiency rotary compressors are used on all Friedrich PTACs to maximize durability and efficiency.
STAINLESS STEEL ENDPLATES	Outdoor coil endplates made from stainless steel reduce corrosion on the outdoor coil common with other coil designs.
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 75 CFM of outside air into the conditioned space. The outdoor air passes through a washable mesh screen to prevent debris from entering the airstream.
R-410A REFRIGERANT	Friedrich PTAC units use environmentally-friendly refrigerant.

# Chassis Specifications

## PDE Series

	PDE07K	PDE07R	PDE09K	PDE09R	PDE12K	PDE12R	PDE15K	PDE15R
<b>PERFORMANCE DATA:</b>								
COOLING BTUh	7700/7600	7700	9000/8800	9000	12000/11800	12000	15000/14600	15000
POWER (WATTS)	640/620	640	800/770	800	1120/1120	1120	1530/1510	1530
EER	12.0/12.2	12.0	11.3/11.4	11.3	10.7/10.5	10.7	9.8/9.7	9.8
DEHUMIDIFICATION (pints/hr)	1.7	1.7	2.2	2.2	2.7	2.7	3.2	3.2
SENSIBLE HEAT RATIO	0.84	0.84	0.81	0.81	0.67	0.67	0.65	0.65
<b>ELECTRICAL DATA:</b>								
VOLTAGE (1 PHASE, 60 Hz)	230/208	265	230/208	265	230/208	265	230/208	265
VOLT RANGE	253-187	292-239	253-187	292-239	253-187	292-239	253-187	292-239
CURRENT (AMPS)	2.8/3.0	2.4	3.7/3.9	3.7	5.1/5.3	4.8	6.7/7.5	5.9
POWER FACTOR	0.97	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Compressor LRA	19.0	12.0	17.0	18.0	27.00	23.0	32.6	27.8
Compressor RLA	2.8	2.4	3.7	2.9	5.0	4.3	6.6	5.6
Fan motor horsepower	0.024	0.024	0.029	0.029	0.031	0.031	0.031	0.031
<b>AIRFLOW DATA:</b>								
INDOOR CFM, HIGH	345/315	345	360/345	360	360/350	360	385/375	385
INDOOR CFM, MED	320/290	320	330/305	330	330/310	330	360/330	360
INDOOR CFM, LOW	295/265	295	300/270	300	310/280	310	320/290	320
VENT CFM	75	75	75	75	75	75	75	75
<b>PHYSICAL DATA:</b>								
DIMENSIONS	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4	16x42x13 3/4
NET WEIGHT	106	106	111	111	116	116	119	119
SHIPPING WEIGHT	126	126	131	131	136	136	139	139
R-410A CHARGE (oz)	23.63	24.69	33.51	33.51	35.27	35.98	38.1	40.21
Dim.s w/ Pkg.	19.75x23x 43.5 (all models)							

## PDH Series

	PDH07K	PDH07R	PDH09K	PDH09R	PDH12K	PDH12R	PDH15K	PDH15R
<b>PERFORMANCE DATA:</b>								
COOLING BTUh	7700/7600	7700	9000/8800	9000	12000/11800	12000	14500/14200	14500
POWER (WATTS) cool	640/620	640	800/770	800	1120/1120	1120	1480/1460	1480
EER	12.0/12.2	12	11.3/11.4	11.3	10.7/10.5	10.7	9.8/9.7	9.8
REVERSE HEATING BTUh	6300/6100	6300	8100/7900	8100	10700/10500	10700	13300/13000	13300
POWER (WATTS) HEAT	540/530	540	720/770	720	1010/990	1010	1300/1270	1300
COP	3.4/3.4	3.4	3.3/3.3	3.3	3.1/3.1	3.1	3.0/3.0	3
DEHUMIDIFICATION (pints/hr)	1.7	1.7	2.2	2.2	2.7	2.7	3.2	3.2
SENSIBLE HEAT RATIO	0.84	0.84	0.81	0.81	0.67	0.67	0.65	0.65
<b>ELECTRICAL DATA:</b>								
VOLTAGE (1 PHASE, 60 Hz)	230/208	265	230/208	265	230/208	265	230/208	265
VOLT RANGE	253-187	292-239	253-187	292-239	253-187	292-239	253-187	292-239
CURRENT (AMPS)	2.8/3.0	2.4	3.7/3.9	3.7	5.1/5.3	4.8	6.7/7.5	5.7
REVERSE HEAT. Amps	2.4/2.5	2.1	3.4/3.8	3.4	4.5/4.7	4.5	5.8/6.2	5.0
POWER FACTOR	0.97	0.99	0.99	0.99	0.99	0.99	0.98	0.98
Compressor LRA	19.0	12.0	18.5	19.0	27.00	23.0	36.0	26.0
Compressor RLA	2.8	2.4	3.6	3.2	5.0	4.3	6.5	5.3
Fan motor horsepower	0.024	0.024	0.029	0.029	0.031	0.031	0.031	0.031
<b>AIRFLOW DATA:</b>								
INDOOR CFM, HIGH	345/315	345	360/345	360	360/350	360	420/390	385
INDOOR CFM, MED	320/290	320	330/305	330	330/310	330	410/380	360
INDOOR CFM, LOW	295/265	295	300/270	300	310/280	310	380/350	320
VENT CFM	75	75	75	75	75	75	75	75
<b>PHYSICAL DATA:</b>								
DIMENSIONS	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5	16x42x13.5
NET WEIGHT	108	108	113	113	118	118	121	123
SHIPPING WEIGHT	128	128	133	133	138	138	141	143
R-410A CHARGE (oz)	23.63	24.69	33.51	35.27	35.27	35.98	39.86	36.33

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

250 V Receptacles and Fuse Types			
AMPS	15	20	30
HEATER SIZE	0, 2.0 kW	3.0 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	9055	8709	8062	8624	8131	7500	8285	<b>7700</b>	6815	7762	6892	6075	6907	5944	5251
	WATTS	522	531	536	569	575	582	640	<b>640</b>	640	692	691	693	755	755	758
	AMPS	2.3	2.3	2.4	2.5	2.5	2.5	2.8	<b>2.80</b>	2.8	3	3	3	3.3	3.3	3.3
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	<b>0.77</b>	0.99	0.55	0.81	0.99	0.58	0.87	0.99
PDE09	BTUh	10584	10179	9423	10080	9504	8766	9684	<b>9000</b>	7965	9072	8055	7101	8073	6948	6138
	WATTS	653	663	670	711	718	727	800	<b>800</b>	800	865	864	866	943	943	947
	AMPS	3.1	3.1	3.1	3.3	3.3	3.3	3.7	<b>3.70</b>	3.7	4	4	4	4.3	4.3	4.4
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE12	BTUh	14112	13572	12564	13440	12672	11688	12912	<b>12000</b>	10620	12096	10740	9468	10764	9264	8184
	WATTS	914	928	939	996	1006	1018	1120	<b>1120</b>	1120	1211	1210	1213	1320	1320	1326
	AMPS	4.2	4.2	4.3	4.5	4.6	4.6	5.1	<b>5.10</b>	5.1	5.5	5.5	5.5	6	6	6
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE15	BTUh	17640	16965	15705	16800	15840	14610	16140	<b>15000</b>	13275	15120	13425	11835	13455	11580	10230
	WATTS	1248	1268	1282	1360	1374	1391	1530	<b>1530</b>	1530	1654	1652	1657	1804	1804	1812
	AMPS	5.5	5.6	5.6	6	6	6	6.7	<b>6.70</b>	6.7	7.2	7.2	7.2	7.9	7.9	7.9
	SHR	0.47	0.63	0.85	0.48	0.66	0.87	0.48	<b>0.68</b>	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	9055	8709	8062	8624	8131	7500	8285	<b>7700</b>	6815	7762	6892	6075	6907	5944	5251
	WATTS	522	531	536	569	575	582	640	<b>640</b>	640	692	691	693	755	755	758
	AMPS	2.3	2.3	2.4	2.5	2.5	2.5	2.8	<b>2.80</b>	2.8	3	3	3	3.3	3.3	3.3
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	<b>0.77</b>	0.99	0.55	0.81	0.99	0.58	0.87	0.99
PDH09	BTUh	10584	10179	9423	10080	9504	8766	9684	<b>9000</b>	7965	9072	8055	7101	8073	6948	6138
	WATTS	653	663	670	711	718	727	800	<b>800</b>	800	865	864	866	943	943	947
	AMPS	3.1	3.1	3.1	3.3	3.3	3.3	3.7	<b>3.70</b>	3.7	4	4	4	4.3	4.3	4.4
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDH12	BTUh	14112	13572	12564	13440	12672	11688	12912	<b>12000</b>	10620	12096	10740	9468	10764	9264	8184
	WATTS	914	928	939	996	1006	1018	1120	<b>1120</b>	1120	1211	1210	1213	1320	1320	1326
	AMPS	4.2	4.2	4.3	4.5	4.6	4.6	5.1	<b>5.10</b>	5.1	5.5	5.5	5.5	6	6	6
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDH15	BTUh	17052	16400	15182	16240	15312	14123	15602	<b>14500</b>	12833	14616	12978	11441	13007	11194	9889
	WATTS	1208	1227	1240	1316	1329	1345	1480	<b>1480</b>	1480	1600	1598	1603	1745	1745	1752
	AMPS	5.4	5.5	5.5	5.9	5.9	5.9	6.5	<b>6.6</b>	6.6	7.1	7.1	7.1	7.7	7.7	7.7
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	<b>0.70</b>	0.9	0.5	0.74	0.9	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	5250	5540	<b>6300</b>	6900	7620
	WATTS	509	518	<b>540</b>	549	580
	AMPS	2.3	2.4	<b>2.4</b>	2.5	2.6
PDH09	BTUh	6005	6399	<b>8100</b>	8647	9245
	WATTS	647	656	<b>720</b>	725	735
	AMPS	3.3	3.3	<b>3.4</b>	3.4	3.5
PDH12	BTUh	7726	8531	<b>10700</b>	11278	12234
	WATTS	883	917	<b>1010</b>	1039	1073
	AMPS	4	4.1	<b>4.5</b>	4.7	4.9
PDH15	BTUh	10530	10850	<b>13300</b>	14550	15940
	WATTS	1197	1212	<b>1300</b>	1377	1439
	AMPS	5.3	5.4	<b>5.8</b>	6.1	6.3

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	9055	8709	8062	8624	8131	7500	8285	<b>7700</b>	6815	7762	6892	6075	6907	5944	5251
	WATTS	522	531	536	569	575	582	640	<b>640</b>	640	692	691	693	755	755	758
	AMPS	2	2	2	2.1	2.1	2.2	2.4	<b>2.40</b>	2.4	2.6	2.6	2.6	2.8	2.8	2.8
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	<b>0.77</b>	0.99	0.55	0.81	0.99	0.58	0.87	0.99
PDE09	BTUh	10584	10179	9423	10080	9504	8766	9684	<b>9000</b>	7965	9072	8055	7101	8073	6948	6138
	WATTS	653	663	670	711	718	727	800	<b>800</b>	800	865	864	866	943	943	947
	AMPS	3.1	3.1	3.1	3.3	3.3	3.3	3.7	<b>3.70</b>	3.7	4	4	4	4.3	4.3	4.4
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE12	BTUh	14112	13572	12564	13440	12672	11688	12912	<b>12000</b>	10620	12096	10740	9468	10764	9264	8184
	WATTS	914	928	939	996	1006	1018	1120	<b>1120</b>	1120	1211	1210	1213	1320	1320	1326
	AMPS	4	4	4	4.3	4.3	4.3	4.8	<b>4.80</b>	4.8	5.2	5.2	5.2	5.6	5.6	5.7
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDE15	BTUh	17640	16965	15705	16800	15840	14610	16140	<b>15000</b>	13275	15120	13425	11835	13455	11580	10230
	WATTS	1248	1268	1282	1360	1374	1391	1530	<b>1530</b>	1530	1654	1652	1657	1804	1804	1812
	AMPS	4.9	4.9	5	5.3	5.3	5.3	5.9	<b>5.90</b>	5.9	6.3	6.3	6.4	6.9	6.9	7
	SHR	0.47	0.63	0.85	0.48	0.66	0.87	0.48	<b>0.68</b>	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	9055	8709	8062	8624	8131	7500	8285	<b>7700</b>	6815	7762	6892	6075	6907	5944	5251
	WATTS	522	531	536	569	575	582	640	<b>640</b>	640	692	691	693	755	755	758
	AMPS	2	2	2	2.1	2.1	2.2	2.4	<b>2.40</b>	2.4	2.6	2.6	2.6	2.8	2.8	2.8
	SHR	0.53	0.72	0.96	0.54	0.74	0.98	0.54	<b>0.77</b>	0.99	0.55	0.81	0.99	0.58	0.87	0.99
PDH09	BTUh	10584	10179	9423	10080	9504	8766	9684	<b>9000</b>	7965	9072	8055	7101	8073	6948	6138
	WATTS	653	663	670	711	718	727	800	<b>800</b>	800	865	864	866	943	943	947
	AMPS	3.1	3.1	3.1	3.3	3.3	3.3	3.7	<b>3.70</b>	3.7	4	4	4	4.3	4.3	4.4
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDH12	BTUh	14112	13572	12564	13440	12672	11688	12912	<b>12000</b>	10620	12096	10740	9468	10764	9264	8184
	WATTS	914	928	939	996	1006	1018	1120	<b>1120</b>	1120	1211	1210	1213	1320	1320	1326
	AMPS	4	4	4	4.3	4.3	4.3	4.8	<b>4.80</b>	4.8	5.2	5.2	5.2	5.6	5.6	5.7
	SHR	0.49	0.66	0.89	0.5	0.69	0.91	0.5	<b>0.71</b>	0.91	0.51	0.75	0.92	0.54	0.8	0.91
PDH15	BTUh	17052	16400	15182	16240	15312	14123	15602	<b>14500</b>	12833	14616	12978	11441	13007	11194	9889
	WATTS	1208	1227	1240	1316	1329	1345	1480	<b>1480</b>	1480	1600	1598	1603	1745	1745	1752
	AMPS	4.7	4.7	4.8	5.1	5.1	5.1	5.7	<b>5.7</b>	5.7	6.1	6.1	6.2	6.7	6.7	6.7
	SHR	0.48	0.65	0.88	0.49	0.68	0.89	0.49	<b>0.70</b>	0.9	0.5	0.74	0.9	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	5250	5540	<b>6300</b>	6900	7620
	WATTS	509	518	<b>540</b>	549	580
	AMPS	2.3	2.4	<b>2.4</b>	2.5	2.6
PDH09	BTUh	6005	6399	<b>8100</b>	8647	9245
	WATTS	647	656	<b>720</b>	725	735
	AMPS	3.3	3.3	<b>3.4</b>	3.4	3.5
PDH12	BTUh	7726	8531	<b>10700</b>	11278	12234
	WATTS	883	917	<b>1010</b>	1039	1073
	AMPS	4	4.1	<b>4.5</b>	4.7	4.9
PDH15	BTUh	10530	10850	<b>13300</b>	14550	15940
	WATTS	1197	1212	<b>1300</b>	1377	1439
	AMPS	4.5	4.6	<b>5</b>	5.3	5.5

RATING POINT  
ARI 310/380

# Electric Heat Data

## Electric Heat Data

	PDE07K0	PDE/PDH07K				PDE/PDH07R	
HEATER WATTS	0 Kw	2000	1635	3000	2450	2000	3000
VOLTAGE	230/208	230	208	230	208	265	
HEATING BTUh	0	6824	5580	10236	8360	6824	10236
HEATING CURRENT (AMPS)	0	8.9	7.9	13.2	12.2	7.6	11.4
MINIMUM CIRCUIT AMPACITY	4.0	11.4	10.0	16.8	15.6	9.6	14.6
BRANCH CIRCUIT FUSE (AMPS)	15	15	15	20	20	15	20

## Electric Heat Data

	PDE09K0	PDE/PDH09K						PDE/PDH09R		
HEATER WATTS	0 Kw	2000	1635	3000	2450	5000	4090	2000	3000	5000
VOLTAGE	230/208	230	208	230	208	230	208	265		
HEATING BTUh	0	6824	5580	10236	8360	17060	13960	6824	10236	17060
HEATING CURRENT (AMPS)	0	8.9	7.9	13.2	12.2	21.5	20.5	7.6	11.4	19.0
MINIMUM CIRCUIT AMPACITY	5.2	11.4	10.0	16.8	15.6	27.2	26.0	9.8	14.6	24.1
BRANCH CIRCUIT FUSE (AMPS)	15	15	15	20	20	30	30	15	20	30

## Electric Heat Data

	PDE12K0	PDE/PDH12K						PDE/PDH12R		
HEATER WATTS	0 Kw	2000	1635	3000	2450	5000	4090	2000	3000	5000
VOLTAGE	230/208	230	208	230	208	230	208	265		
HEATING BTUh	0	6824	5580	10236	8360	17060	13960	6824	10236	17060
HEATING CURRENT (AMPS)	0	8.9	7.9	13.2	12.2	21.5	20.5	7.6	11.4	19.0
MINIMUM CIRCUIT AMPACITY	7.1	11.4	10.0	16.8	15.6	27.2	26.0	9.8	14.6	24.1
BRANCH CIRCUIT FUSE (AMPS)	15	15	15	20	20	30	30	15	20	30

## Electric Heat Data

	PDE15K0	PDE/PDH15K						PDE/PDH15R		
HEATER WATTS	0 Kw	2000	1635	3000	2450	5000	4090	2000	3000	5000
VOLTAGE	230/208	230	208	230	208	230	208	265		
HEATING BTUh	0	6824	5580	10236	8360	17060	13960	6824	10236	17060
HEATING CURRENT (AMPS)	0	8.9	7.9	13.2	12.2	21.5	20.5	7.6	11.4	19.0
MINIMUM CIRCUIT AMPACITY	9.1	11.4	10.0	16.8	15.6	27.2	26.0	9.8	14.6	24.1
BRANCH CIRCUIT FUSE (AMPS)	15	15	15	20	20	30	30	15	20	30

# Model Identification / Components / Dimensions

## PTAC/PTHP Model Identification Guide

PD H 07 K 3 S F 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 Btu    12 = 12,000 Btu  
09 = 9,000 Btu    15 = 15,000 Btu

**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\*  
2 = 2.0 KW    3 = 3.0 KW    5 = 5.0 KW\*\*  
\* No heater only available on 230V PDE models  
\*\* 5.0 kw only available on 9000, 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 3/4" 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	
PDXWSEXT	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	
PDXRTA	Remote Thermostat Escutcheon Kit	Qty	
PXDR10	Condensate Drain Kit (pkg/10)	Qty	
PXSB	Sub Base	Qty	
PXSE	T-Series Sleeve Adapter	Qty	
PXCJA	Conduit Kit w/Junction Box	Qty	
PDXDAA	Lateral Duct Adapter	Qty	
PDXDEA	Lateral Duct Extension	Qty	

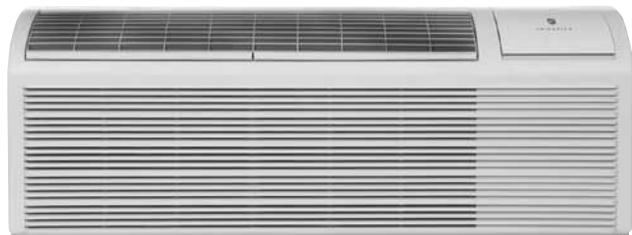
PXSB23020	Electrical Subbase - 230V 15/20A	Qty	
PXSB23030	Electrical Subbase - 230V 30A	Qty	
PXSB26520	Electrical Subbase - 265V 15/20A	Qty	
PXSB26530	Electrical Subbase - 265V 30A	Qty	
PXPC23000	LCDI 230V 15A Cord, 0kw	Qty	
PXPC23015	LCDI 230V 15A Cord, 2kW	Qty	
PXPC23020	LCDI 230V 20A Cord, 3kW	Qty	
PXPC23030	LCDI 230V 30A Cord, 5kW	Qty	
PXPC26515	Non-LCDI 265V 15A Cord, 2kW	Qty	
PXPC26520	Non-LCDI 265V 20A Cord, 3kW	Qty	
PXPC26530	Non-LCDI 265V 30A Cord, 5kW	Qty	
RT6	Digital Remote Thermostat-2 speed fan switch	Qty	
PXFTA	Replacement Filters (Set of 10)	Qty	

**Features**

Constant room comfort monitoring  
 "Instant Heat" heat pump mode quickly heats a room to the desired temperature for increased comfort  
 Even heat monitoring checks room temperature and automatically adds heat boost if necessary  
 Room freeze protection- heat initiated if temperature falls to 40°F in an unoccupied room, raising temperature to 46°F  
 Dual motors for quiet operation  
 Durable, powder coat paint finish  
 Indoor coil frost sensor protects the compressor to lengthen the life of the unit.  
 Random compressor restart protects electrical systems from overload when power is restored

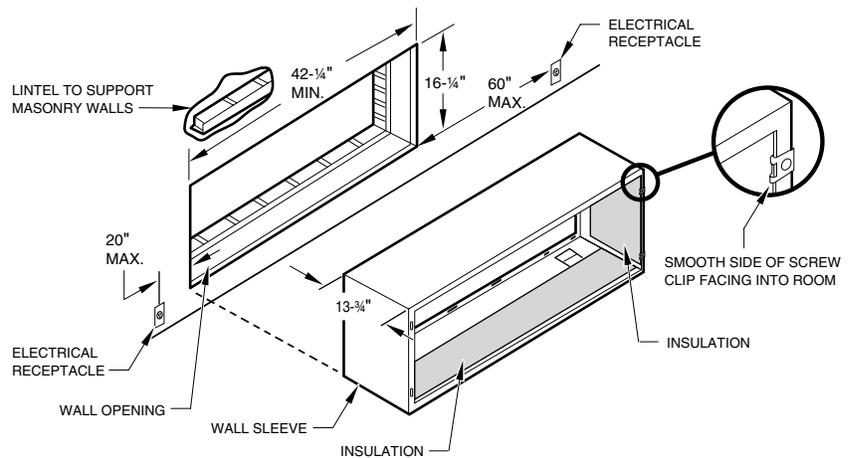
Separate heat and cool range limits  
 Desk control ready allowing hotel owners to control units from a central location  
 Electronic defrost control ensures more run time in the efficient heat pump mode  
 Universal heaters with heat capacities determined by the power cord used with the unit

Fresh air damper control to bring in fresh outside air when desired  
 Washable, antimicrobial air filter  
 Service error code memory storage  
 Emergency heat override



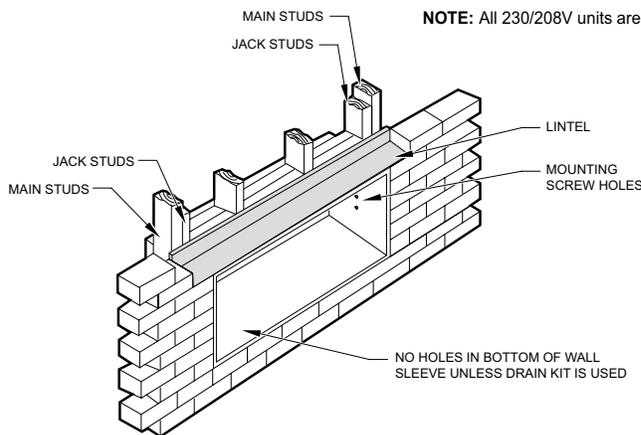
# Installation

## Typical Wall Sleeve Installation (PDXWS)



**NOTE:** All 230/208V units are manufactured with a 60" power cord and all 265V units with a 18" power cord.

FRP008



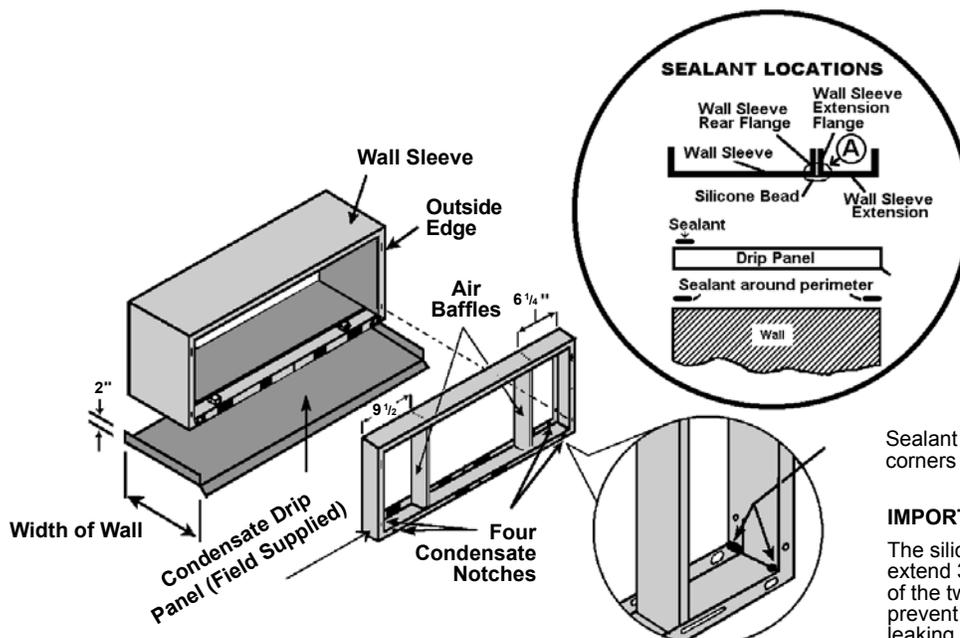
Note the use of a lintel under the first course of bricks above the wall sleeve. Do not use the wall sleeve as a lintel. The mounting screw holes shown are to be made by the installer.

Note: All 230/208V units are manufactured with a 60" power cord and all 265V units with an 18" power cord. The receptacle locations above must be followed to ensure proper connections.

**NOTE:** Construct wall opening to comply with all applicable building codes.

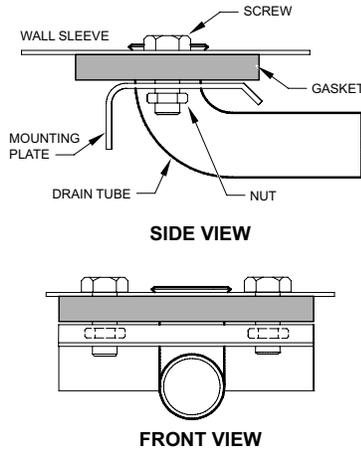
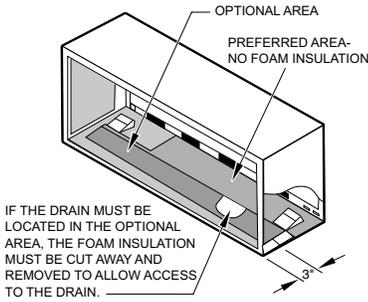
FRP010

## Deep Wall Sleeve Installation



# Accessory Installation

## Internal Drain Kit Location and Installation (PXDR10)



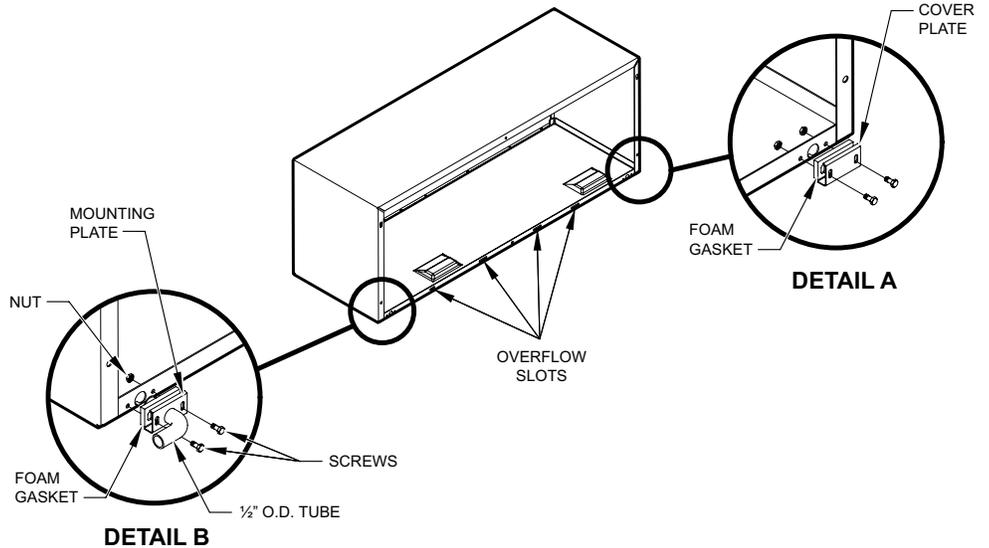
FRP011

## 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.

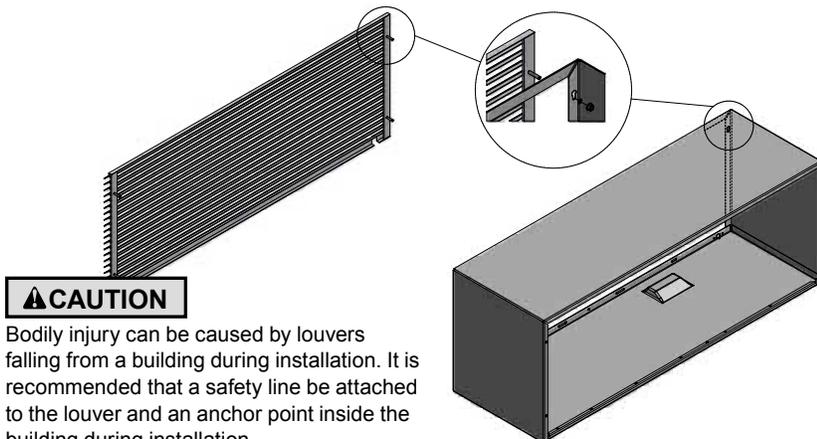
Place the drain tube through the gasket and the mounting plate with the flange toward the wall sleeve.

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.



FRP012

## Architectural Louver Installation (PXAA)



### 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: 7600 – 15,000 Btuh

Heating: 7600 – 14500 Btuh (Heat Pump)  
6824 – 17060 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 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 1/4". The unit shall be designed so that room intrusion may be as little as 7 1/2". Installations in walls deeper than 13 1/4" may be accomplished with the use of a deep wall sleeve (PDXWSEXT). 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 3/8" dia. x 1 1/2" high; condenser and evaporator coils constructed of copper tubes and aluminum plate fins; and capillaries as expansion devices. Unit shall have a fan slinger ring to increase efficiency and condensate disposal and have a drain pan capable of retaining 1 1/2 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.

**INDOOR AIR HANDLING SECTION** – The indoor air handling section shall consist of a tangential blower wheel direct driven by a totally enclosed motor. The air handling system shall be designed to minimize airflow noise and provide smooth and consistent airflow. The indoor fan must have three fan speeds that may be selected by the user.

The indoor discharge grille shall be designed to maximize airflow throughout the room. The grille shall be reversible to allow a change in the airflow directions. The grille openings shall be sized to prevent personal injury or damage to the unit.

The front cover shall incorporate dual air filters conveniently mounted in the front of the unit. The filters must be accessible without the removal of the front cover. The filters shall be made of anti-microbial material to prevent mold and bacterial growth. The filters shall be washable and reusable by cleaning with water or by vacuuming.

The chassis shall have a built-in damper capable of providing at least 75 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.

**OUTDOOR AIR HANDLING SECTION** – The outdoor air section shall consist of a single injection molded fan shroud that incorporates the outdoor motor mount into a single piece for ease of service and assembly. The outdoor motor shall be totally enclosed, ball-bearing, permanently lubricated and directly drive the outdoor fan/slinger ring.

**CONTROLS** – Covered controls shall be accessible in a compartment at least 7 1/2" wide with the controls no deeper than 1 1/4" in the opening to facilitate easy operation of the unit.

The unit controls shall feature a soft blue LED readout that can display either room temperature or setpoint temperature. The unit shall receive input from the digital control panel through push buttons labeled: 'Cool', 'Heat', 'High Fan', 'Med 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
- Fan cycle control for cooling and heating independently
- Room freeze protection
- Random compressor restart
- Electronic temperature limiting

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 O (reversing valve on PDH heat pumps only).

PTAC models shall use a single stage cool / single stage heat thermostat. PTHP models shall use a single stage cool / two-stage heat thermostat. An accessory thermostat must be available from the manufacturer, RT6 or equivalent. The RT6 thermostat will provide temperature setpoint, mode selection from cool, heat and fan modes. The thermostat must also allow the selection of fan speed between high and low speed.

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).

**ELECTRICAL CONNECTION** – All PTAC/PTHP units shall come from the factory with a power cord installed. All 230/208V power cords shall feature a leakage current detection device on the plug head. All units shall feature a 6-pin connector for removal of the power cord. The power cord shall be interchangeable to allow changes to the heater output based on the property/electrical requirements.

**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 attach firmly to the chassis by two hidden spring clips. As an option the cover may be attached by two screws to prevent tampering. The front panel will feature a contoured discharge with no sharp corners.

**CORROSION PROTECTION** – The unit shall have corrosion-resistant fans, 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. All outdoor coils shall also have stainless steel endplates to eliminate rusting of the endplates.

**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 3/4" Deep.	
PDXWSEXT	<b>DEEP WALL SLEEVE EXTENSION</b> For use when the wall is thicker than 13 1/4" deep. The wall sleeve may be special ordered through your Sales Representative and will be cut to your specific depth requirements..	
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 aluminium alloy: PXAA – Clear, extruded aluminium PXBG – Beige acrylic enamel PXSC – Also available in custom colors.	
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.	
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.	
RT6	<b>DIGITAL REMOTE WALL THERMOSTAT</b> Single stage cool, single stage heat for PDE models or single stage cool, dual stage heat for PDH model 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.	
PDXRTA	<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.	
PXSE	<b>SLEEVE EXTENSION RETROFIT KIT</b> 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.	
PDXDAA	<b>LATERAL DUCT ADAPTER</b> 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.	
PDXDEA	<b>LATERAL DUCT EXTENSION</b> 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.	

# Accessories

New Construction Accessories		
PXCJA	<b>CONDUIT KIT WITH JUNCTION BOX</b> 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.	
PXFTA	<b>REPLACEMENT FILTER PACK</b> These are original equipment return air filters. They are reusable and can be cleaned by vacuuming, washing, or blowing out, and are sold in convenient ten-packs. (Two filters per chassis).	

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F R I E D R I C H

Friedrich Air Conditioning Company  
10001 Reunion Place, Ste. 500  
San Antonio, TX 78216  
1.800.584.6001

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)