

# THE EXPERTS IN ROOM AIR CONDITIONING



**FRIEDRICH**  
1883

PTACs  
DUCTLESS SPLIT SYSTEMS  
VERTICAL PTACs





# DUCTLESS SPLIT SYSTEMS

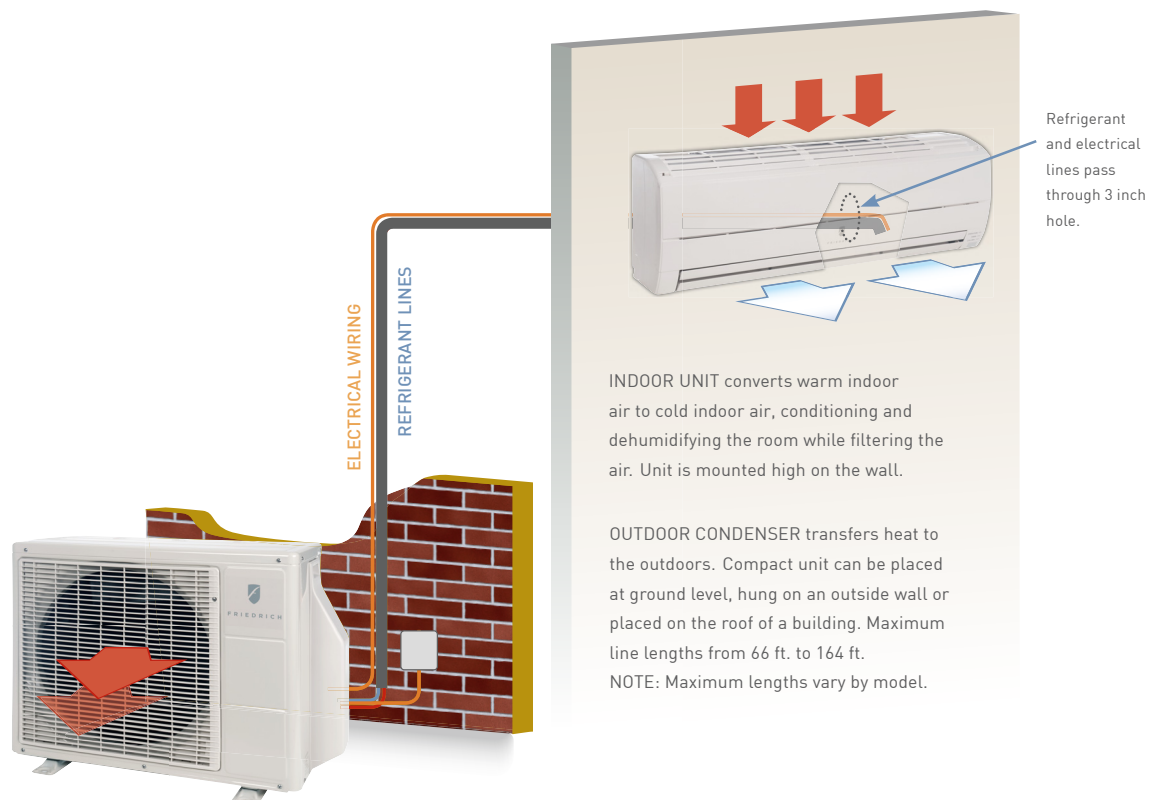
Amazingly quiet indoors.

Ductless split systems offer many advantages for residential and light commercial applications.

## HOW DUCTLESS SYSTEMS WORK

Friedrich ductless split systems have the advantages of a ducted installation without the high material and labor costs. Most systems can be installed and running in a few hours.

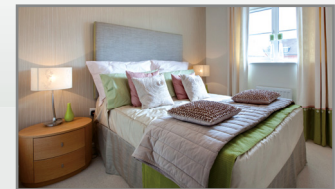
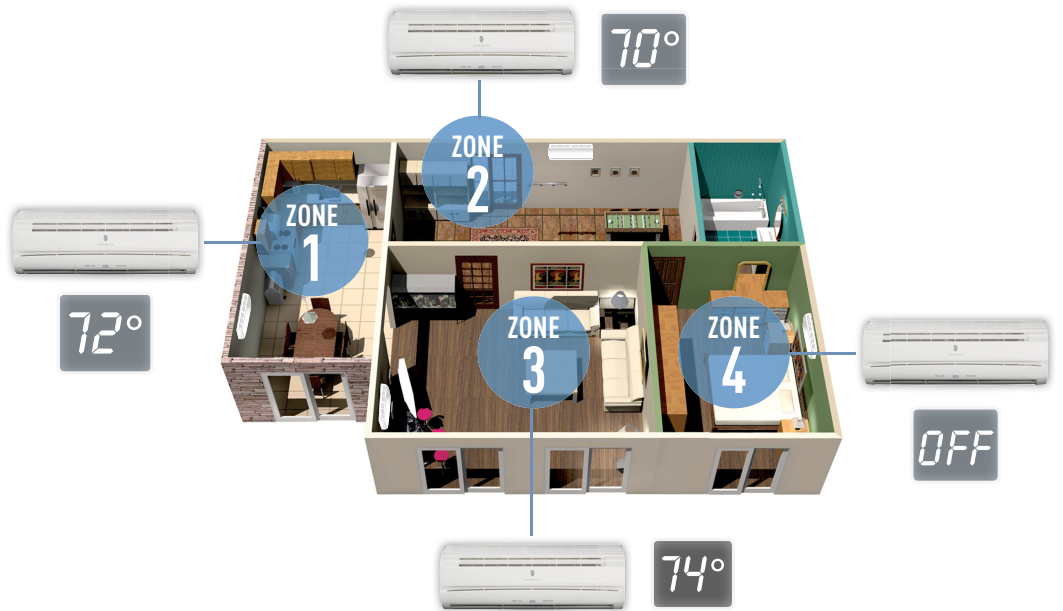
Refrigerant lines and electrical pass through a 3" wall opening and run along the exterior of the building to the condensing unit. Electrical hard-wiring is required.



# HEAT & COOL 1, 2, 3 —UP TO 4 AREAS

One, two, three or four wall-mounted indoor units connected to one outdoor unit for personalized zone cooling.

Choose a single zone wall-mounted unit to condition one area or a multizone system for precise comfort from one system in up to four different zones.



## ZONE COOLING AND HEATING

Occupants have the ability to set the temperature to their preferred comfort level. And, you can turn off units in unoccupied rooms. That's the beauty- and efficiency of a Friedrich multizone system.



Each unit has its own remote for individual comfort control



Up to 4 wall-mounted indoor units with a single outdoor condensing unit.

# ALL INVERTER LINE WITH UP TO 22.0 SEER

Full line of ductless products

Wall-mounted single and multizone, floor/ceiling universal models, ceiling cassette and ceiling suspended.



## All Inverter models including desirable, 115 volt 9000 and 12000 Btu wall-mounted models.

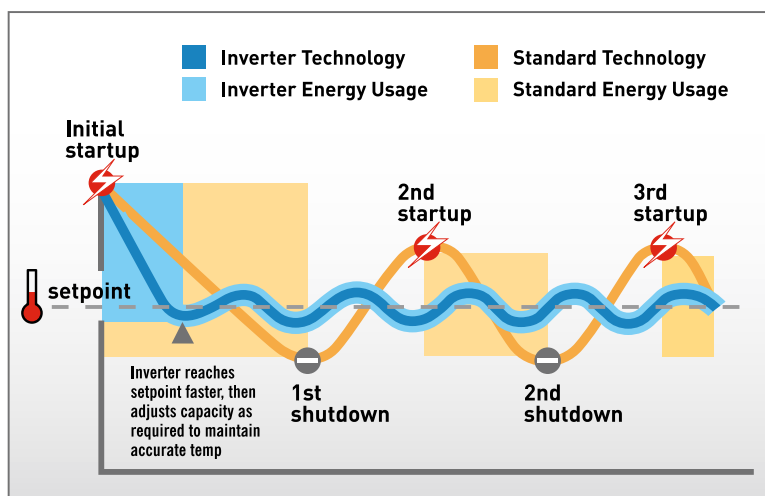
Inverter technology lets you reach the desired temperature faster, maintain it more accurately, and reduce energy costs.

Inverter technology varies the compressor, the condenser and the indoor fan speeds, eliminating constant compressor start-ups/shut-downs that traditional systems require to maintain the set temperature.



This is especially beneficial in multizone systems where room temperature set points vary and some indoor units may be turned off in unoccupied rooms.

Each system can adjust capacity and cooling output to provide only the amount of cooling needed at a given time. For example, an 18000 Btu system will operate even more efficiently as a 15500 if that is all that's needed.



### The Advantages of Friedrich Inverter Ductless Systems

TRADITIONAL SYSTEM	INVERTER SYSTEM
At initial start up, fixed capacity system slowly reaches the set temperature.	At initial start up, utilizes variable capacity to quickly reach the set temperature.
Complete shutdown once set temperature is achieved.	Reduces capacity as set temperature is achieved.
Temperature within the space rises until 2nd system start up.	Variable capacity maintains set temperature keeping space comfortable with reduced energy consumption.
System works at full capacity to again reach set temperature.	
System cycles on and off continually to maintain the set temperature.	



# HIGH EFFICIENCY DUCTLESS SYSTEMS THAT ARE ECO-FRIENDLY AND BUDGET FRIENDLY

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The high efficiency and zone cooling abilities of ductless systems make them the smart choice to lower energy costs.



Wall-mounted controller available as an optional accessory on most models

## ENERGY STAR® QUALIFIED MODELS

All Friedrich ductless models exceed the federal 13.0 SEER requirements. And more than 50% of our models have ratings ranging from 16.5 to 22.0 SEER. Seven models are ENERGY STAR® qualified with EERs up to 14.0.

## VARIABLE CAPACITY ADVANTAGES

Inverter Technology allows each system to adjust capacity and cooling output to provide only the amount of cooling needed at a given time. For example, an 18000 Btu system will operate even more efficiently as a 15500 or less if that's all that's needed, reducing energy consumption and expenses.

## ZERO DUCT LOSS

The DOE reports that ducted systems lose an average of 25-40% in performance due to leaks, cracks or disconnections in ductwork. No ductwork means that ductless systems do not experience duct loss.

## ZONE COOLING FLEXIBILITY

Independently condition up to 4 separate zones using only a single outdoor unit. Achieve the ultimate in comfort and energy control by cooling or heating only the zones that are in use. And, because each zone is independent of the others, comfort settings can vary.

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Virtually silent indoors and no ductwork to clean.

## EXTREMELY QUIET

Ductless systems keep the operating noise of the condensing unit outdoors, while the blower fan of the indoor unit remains whisper quiet.

## NO DIRTY AIR DUCTS

Now there's no need to clean dirty air ducts that can harbor dust, germs and allergens that are eventually blown into your home or office.

# APPLICATIONS

## LIGHT COMMERCIAL AND RESIDENTIAL APPLICATIONS

Units can be installed high on the wall well above eye level, on the ceiling or on the floor against the wall.

### COMMERCIAL

- Hotels and other lodging
- Computer rooms/server rooms
- Restaurant kitchen and prep areas
- Offices in warehouse spaces
- Storage facilities
- Buildings where security concerns prevent the use of window units
- Internal areas without exterior wall access

### RESIDENTIAL

- Room additions/renovations
- Homes without ductwork
- Bedrooms and family rooms
- Garage workshops
- Sunrooms
- Guest quarters
- Wine cellars

### Features you'll find on our ductless systems:

System Type	Wall-mounted Single Zone	Wall-mounted Multizone	Universal Floor/Ceiling	Ceiling-Suspended	Ceiling Cassette
Installation	On the wall	On the wall	On the ceiling or low against the wall	On the ceiling	Flush with ceiling
Cool only	Y	N	N	N	N
Heat pump	Y	Y	Y	Y	Y
115 volt models	Y	N	N	N	N
Inverter compressor	Y	Y	Y	Y	Y
SEER	Up to 22.0	Up to 16.5	15.0	14.0	15.0
'Whisper quiet' indoors	Y	Y	Y	Y	Y
Auto-changeover	Y	Y	Y	Y	Y
Low ambient operation	Y	Y	Y	Y	Y
Programmable timer	24-hr.	24-hr.	24-hr.	24-hr.	24-hr.
Remote control	LCD	LCD	LCD	LCD	LCD
Auto restart when power is interrupted	Y	Y	Y	Y	Y
Continuous 'Air Sweep'	Y	Y	Y	Y	Y
Washable, antimicrobial air filters	Y	Y	Y	Y	Y
Auto shut flaps when unit is off	Y	Y	Y	Y	Y
Fan speeds	4-HEATING, 4- COOLING	4-HEATING, 4- COOLING	3-HEATING, 3- COOLING	3-HEATING, 3- COOLING	3-HEATING, 3- COOLING

Learn more about ductless  
@ [www.friedrich.com](http://www.friedrich.com)

The Ultimate Room Air Conditioner  
Our online video explains the advantages  
of Friedrich ductless splits



# WALL-MOUNTED SINGLE ZONE



## COOL-ONLY MODELS

**9000 and 12000 Btu variable capacity models use 115V power for superior residential installation capability. Full line of 230V systems with capacities up to 3 tons.**

### Comfort & Convenience

- LCD wireless remote for each indoor unit and secured remote control holder
- 24-hour timer and sleep timer
- Four fan speeds: high, medium, low, quiet, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification) and fan only
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Remote controllers have four different transmitter codes to prevent unintentional adjustment or programming of nearby units when multiple units are installed
- Low temperature operation (See specifications)

### 115 Volt 9000 and 12000 Btu



MR09C1H,  
MR12C1H



MW09C1H, MW12C1H


### 230/208 Volt 18000 to 33000 Btu



MR18C3F



MW18C3F



DWC optional,  
wired, wall-mounted  
controller available  
on 18000 Btu and  
higher Btu models.



MR24C3G,  
MR30C3G,  
MR36C3G



MW24C3G, MW30C3G, MW36C3G

## WALL-MOUNTED SINGLE ZONE



# HEAT PUMPS

**Extensive features for comfort and convenience year 'round. In energy efficient heat pump mode uses approximately 1/3 of the energy required by electric heat.**

### Comfort & Convenience

- LCD wireless remote for each indoor unit and secured remote control holder
- 24-hour timer and sleep timer
- Four fan speeds cooling or heating: high, medium, low, quiet, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification), fan only and heat
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Auto-changeover (heat pump models)
- Remote controllers have four different transmitter codes to prevent unintentional adjustment or programming of nearby units when multiple units are installed
- Low temperature operation (See specifications)

230/208 Volt

8500 to 22000 Btu  
10000 to 27600 Btu



MW09Y3H, MW12Y3H

MR09Y3H,  
MR12Y3H



DWC optional, wired, wall-mounted controller available on 18000 Btu and higher Btu models.



MW18Y3H, MW24Y3H

MR18Y3H,  
MR24C3H



# WALL-MOUNTED MULTIZONE



## MULTIZONE HEAT PUMPS

Two, three or four wall-mounted indoor units connected to one outdoor unit for personalized zone cooling.

### Comfort & Convenience

- LCD wireless remote for each indoor unit and secured remote control holder
- 24-hour timer and sleep timer
- Four fan speeds cooling or heating: high, medium, low, quiet, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification), fan only and heat
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Auto-changeover (heat pump models)
- Remote controllers have four different transmitter codes to prevent unintentional adjustment or programming of nearby units when multiple units are installed
- Low temperature operation (See specifications)

### 230/208 Volt

**DUALZONE**  
Cooling  
19000 to 24000 Btu  
Heat pump  
22000 to 28000 Btu

**TRI-ZONE**  
Cooling  
27600 to 35100 Btu  
Heat pump  
33600 to 38100

**QUADZONE**  
Cooling  
35200 Btu  
Heat pump  
38000 Btu

### 1-2-3-4 ZONE HEAT PUMPS



Each unit has its own remote for individual comfort control



DWC optional, wired, wall-mounted controller available on 18000 Btu and higher Btu models.



## FLOOR/CEILING UNIVERSAL



### HEAT PUMP

Indoor unit can be installed 2 ways:  
low against the wall or on the ceiling.



ON THE CEILING



OR LOW AGAINST THE WALL



MS24Y3F



MR24UY3F

### Comfort & Convenience

- LCD wireless remote and secured remote control holder
- 24-hour timer and sleep timer
- Four fan speeds cooling or heating: high, medium, low, quiet, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification), fan only and heat
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Auto-changeover
- Low temperature operation to 0° F
- Self-diagnostics including stored error codes



DWC optional, wired, wall-mounted controller available on Universal floor/ceiling model

### Heat pump

S24YF	22200 Btu	15.0 SEER
	24200 Btu	

## CEILING CASSETTE



### HEAT PUMP

Low profile indoor unit recedes into ceiling for a clean look and greater clearance.



MC24Y3F



MR24UY3F

### Comfort & Convenience

- Wall controller with 7-day programmable on/off timer controls up to 16 units- individually or by zones
- Three fan speeds cooling or heating: high, medium, low, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification), fan only and heat
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Auto-changeover
- Low temperature operation to 0° F
- Self-diagnostics including stored error codes
- Condensate pump: 31" maximum rise
- Two branch ducts for adjoining rooms (requires additional fan)
- Fresh air intake (requires a separate in-line fan installation and ducting)

### Heat pump

C24YF	22200 Btu	15.0 SEER
	24200 Btu	

## CEILING-SUSPENDED



## HEAT PUMP

Almost 3 ton heat pump for conditioning large areas



MS36Y3F



MR36Y3F

### Comfort & Convenience

- LCD wireless remote and secured remote control holder
- Three fan speeds cooling or heating: high, medium, low, plus autofan
- Multiple operating modes including: Auto, cool, dry (dehumidification), fan only and heat
- Long-life, washable air filters
- Continuous 'Air Sweep' for even distribution of air throughout the room
- Auto-shut flaps close when unit is off for a sleeker appearance
- Auto-restart after power interruptions
- Auto-changeover
- Low temperature operation to 0° F
- Self-diagnostics including stored error codes
- Optional DP-36 condensate pump in lieu of gravity condensate removal (see accessories)
- Fresh air intake (requires a separate in-line fan installation and ducting)



DWC optional, wired, wall-mounted controller available on ceiling-suspended model.

### Heat pump

S36YF    34100 Btu    14.0 SEER  
           38200 Btu

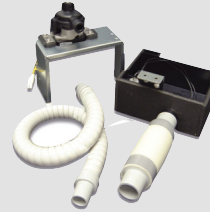
## Accessories

### Wired wall-mounted controller



WIRED CONTROLLER	USED WITH
DWC	18000 Btu and larger models and all multizone systems. 7-day programmable ON/OFF timer controls up to 16 units individually or by zones.

### Drain pump



DRAIN PUMP	USED WITH
DP-36	S36YF

### Refrigeration line sets



USED WITH:	Length Ft.	Liquid	Suction	Kit#
All 9000 and 12000 Btu indoor units	15'	1/4"	3/8"	T32150
	35'	1/4"	3/8"	T32350
MW18C3F and MW18Y3FM indoor units	15'	1/4"	1/2"	T42150
	35'	1/4"	1/2"	T42350
MW24C3G indoor unit	15'	1/4"	5/8"	T52150
	35'	1/4"	5/8"	T52350
M18YH, M24YH, M30CG, M36CG, S24YF, C24YF and S36YF systems	15'	3/8"	5/8"	T53150
	35'	3/8"	5/8"	T53350

Insulated line sets are available for all Friedrich split systems in 15 ft. and 35 ft. lengths.

Each line set is equipped with flare nuts on both ends. Both liquid and suction lines are insulated. Line sets can be joined together with field supplied double female connectors.

Each system requires one line set for each indoor unit installed. On multizone systems, line sets should be ordered based on individual indoor unit capacities not total system capacity. For example, a M18DYF uses 2 line sets for 9000 Btu units, not 1 for the 18000 Btu product.

# SPECIFICATIONS

## WALL-MOUNTED COOL ONLY

PERFORMANCE RATINGS							
SYSTEM MODEL NO.		M09CH	M12CH	M18CF	M24CG	M30CG	M36CG
INDOOR MODEL		MW09C1H	MW12C1H	MW18C3F	MW24C3G	MW30C3G	MW36C3G
OUTDOOR MODEL		MR09C1H	MR12C1H	MR18C3F	MR24C3G	MR30C3G	MR36C3G
CAPACITY COOLING	Btu	9000	12000	18000	24000	30700	33000
CAPACITY COOLING MIN - MAX	Btu	4435-10600	4500-14000	5500-19000	5200-25000	9900-32400	9900-34100
COOLING AMPS		7.0	10.0	7.7	10.5	14.2	17.3
SENSIBLE HEAT RATIO		0.75	0.75	0.63	0.76	0.65	0.67
SEER		22.0	20.0	19.0	17.5	16.5	15.5
EER		14.0	13.0	10.4	10.0	9.5	8.5
ENERGY STAR		YES	YES	NO	NO	NO	NO
MOISTURE REMOVAL	Pts/h	1.69	2.53	5.9	6.3	9.7	10.1
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	217/253/294/329	250/290/310/335	240/290/355/415	365/436/530/659	365/435/530/660	365/440/530/700
SOUND RATING - INDOOR	dB-A	26/30/34/38	26/32/36/40	25/32/38/44	33/37/42/48	33/37/42/49	33/37/42/51
SOUND RATING - OUTDOOR	dB-A	53	55	50	56	54	54
OPERATING RANGE	°F	32-115	32-115	14- 115	14 - 115	14 - 115	14 - 115
EST. YEARLY OPERATING COST		\$51	\$74	\$138	\$192	\$258	\$310
ELECTRICAL DATA							
POWER SOURCE		115-60-1	115-60-1	230/208-60-1	230/208-60-1	230/208-60-1	230/208-60-1
MIN. AMPACITY	A	15	15	16	14	22	22
COOLING WATTS	W	640	920	1730	2400	3240	3880
MAX. TD FUSE/BREAKER	A	25*	25*	20	20	30	30
REFRIGERATION SYSTEM							
REFRIGERANT		R410A	R410A	R410A	R410A	R410A	R410A
COMPRESSOR TYPE		Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
CONNECTIONS		Flare	Flare	Flare	Flare	Flare	Flare
LIQUID LINE O.D.	in	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"
SUCTION LINE O.D.	in	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"
FACTORY PRECHARGE	ft	25'	25'	49'	49'	66'	66'
MAX. LINE LENGTH	ft	66'	66'	66'	98'	164'	164'
MAX. HEIGHT DIFFERENCE	ft	33'	33'	49'	66'	98'	98'
DIMENSIONS & WEIGHT							
INDOOR UNIT							
W X H X D	in	33 1/4" x 10 7/8" x 7 1/8"	33 1/4" x 10 7/8" x 7 1/8"	31 1/8" x 10 7/8" x 8 1/2"	39 1/4" x 12 5/8" x 9"	39 1/4" x 12 5/8" x 9"	39 1/4" x 12 5/8" x 9"
NET WEIGHT	lbs	24	24	21	31	31	31
SHIPPING WEIGHT	lbs	32	32	26	40	40	40
OUTDOOR UNIT							
W X H X D	in	33 3/8" x 23 1/2" x 12 5/8"	33 3/8" x 23 1/2" x 12 5/8"	31 1/8" x 22 3/4" x 12 3/8"	31 1/8" x 24 7/16" x 11 3/4"	32 3/4" x 35 3/8" x 13"	32 3/4" x 35 3/8" x 13"
NET WEIGHT	lbs	80	88	88	88	135	135
SHIPPING WEIGHT	lbs	90	97	98	97	150	150
TOTAL NET WEIGHT	lbs	104	112	109	119	166	166
TOTAL SHIPPING WEIGHT	lbs	122	129	124	137	190	190

\*Recommended circuit breaker size 20A.

# SPECIFICATIONS

## WALL-MOUNTED HEAT PUMPS

PERFORMANCE RATINGS					
SYSTEM MODEL NO.		M09YH	M12YH	M18YH	M24YH
INDOOR MODEL		MW09Y3H	MW12Y3H	MW18Y3H	MW24Y3H
OUTDOOR MODEL		MR09Y3H	MR12Y3H	MR18Y3H	MR24Y3H
CAPACITY COOLING	Btu	8500	11500	18000	22000
CAPACITY COOLING MIN - MAX	Btu	1700-10900	3100-13300	7000-23000	9900-27300
COOLING AMPS		3.3	4.3	6.3	7.9
SENSIBLE HEAT RATIO		0.65	0.64	0.64	0.68
CAPACITY HEATING @ 47°F	Btu	10000	14000	21600	27600
CAPACITY HEATING MIN - MAX	Btu	1700-15000	3100-19100	7000-29000	7500-36200
CAPACITY HEATING @ 17°F	Btu	6700	8800	14600	18400
HSPF		10.5	10.5	10.0	10.0
SEER		21.0	21.0	19.2	18.0
EER		12.5	12.5	13.0	12.5
ENERGY STAR		YES	YES	YES	YES
MOISTURE REMOVAL	Pts/h	2.7	3.8	5.9	6.3
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	188/283/377/447	188/283/377/447	305/365/435/540	365/435/530/660
SOUND RATING - INDOOR	dB-A	22/33/38/43	22/33/38/43	28/33/37/43	33/37/42/49
SOUND RATING - OUTDOOR	dB-A	46	49	47	54
OPERATING RANGE (HEATING)	°F	14 - 115 (5 - 75)	14 - 115 (5 - 75)	14 - 115 (5 - 75)	0 - 115 (0 - 75)
EST. YEARLY OPERATING COST		\$54	\$73	\$111	\$141
ELECTRICAL DATA					
POWER SOURCE		230/208-60-1	230/208-60-1	230/208-60-1	230/208-60-1
MIN. AMPACITY	A	10	12	16	21
COOLING WATTS	W	680	920	1380	1760
MAX. TD FUSE/BREAKER	A	15	15	20	30
REFRIGERATION SYSTEM					
REFRIGERANT		R410A	R410A	R410A	R410A
COMPRESSOR TYPE		Inverter	Inverter	Inverter	Inverter
CONNECTIONS		Flare	Flare	Flare	Flare
LIQUID LINE O.D.	in	1/4"	1/4"	3/8"	3/8"
SUCTION LINE O.D.	in	3/8"	3/8"	5/8"	5/8"
FACTORY PRECHARGE	ft	49'	49'	66'	66'
MAX. LINE LENGTH	ft	66'	66'	164'	164'
MAX. HEIGHT DIFFERENCE	ft	49'	49'	98'	98'
DIMENSIONS & WEIGHT					
INDOOR UNIT					
W X H X D	in	31 1/8" x 11" x 7 3/4"	31 1/8" x 11" x 7 3/4"	39 1/4" x 12 5/8" x 9"	39 1/4" x 12 5/8" x 9"
NET WEIGHT	lbs	17	17	31	31
SHIPPING WEIGHT	lbs	21	21	40	40
OUTDOOR UNIT					
W X H X D	in	26" x 21 1/4" x 11 3/8"	26" x 21 1/4" x 11 3/8"	32 3/4" x 35 3/8" x 13"	32 3/4" x 35 3/8" x 13"
NET WEIGHT	lbs	55	68	135	135
SHIPPING WEIGHT	lbs	62	75	150	150
TOTAL NET WEIGHT	lbs	72	85	166	166
TOTAL SHIPPING WEIGHT	lbs	83	96	190	190

# SPECIFICATIONS

## DUAL-ZONE HEAT PUMPS

## QUAD-ZONE HEAT PUMP

PERFORMANCE RATINGS						
SYSTEM MODEL NO.		M18DYF	M21DYF		M24DYF	M36QYF
INDOOR MODEL		2 x MW09Y3FM	MW09Y3FM	MW12Y3FM	2 x MW12Y3FM	4 x MW09Y3FM
OUTDOOR MODEL		MR24DY3F	MR24DY3F		MR24DY3F	MR36TQY3F
CAPACITY COOLING	Btu	9500 ea.	9500	12000	12000 ea.	8800 ea.
CAPACITY COOLING MIN - MAX	Btu	5100-11300 ea.	5100-11300 ea.	5100-13600 ea.	5100-13600 ea.	5100-11300 ea.
SENSIBLE HEAT RATIO		0.77	0.77	0.77	0.77	0.71
CAPACITY HEATING @ 47°F	Btu	11000 ea.	11000 ea.	14000	14000 ea.	9500 ea.
CAPACITY HEATING MIN - MAX	Btu	5100-13000 ea.	5100-13000 ea.	5100-15400 ea.	5100-15400 ea.	5100-13000 ea.
CAPACITY HEATING @ 17°F	Btu	9500 ea.	9500 ea.	11000	10500 ea.	6600 ea.
HSPF		9.0	9.0		9.0	9.0
SEER		16.5	16.5		16.5	15.0
EER		12.2	11.2		10.4	8.8
ENERGY STAR		YES	NO		NO	NO
MOISTURE REMOVAL	Pts/h	2.9 ea.	2.9 ea.	3.7 ea.	3.7 ea.	2.9 ea.
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM	185,220,260,295	185,220,260,295	215,250,305,355	215,250,305,355	185,220,260,295
SOUND RATING - INDOOR	dB-A	27,29,33,37	27,29,33,37	30,34,39,42	30,34,39,42	27,29,33,37
SOUND RATING - OUTDOOR	dB-A	52	52		52	52
OPERATING RANGE (HEATING)	°F	0 - 115 (14 - 75)	0 - 115 (14 - 75)		0 - 115 (14 - 75)	0 - 115 (14 - 75)
EST. YEARLY OPERATING COST		\$128	\$152	\$152	\$184	\$312
ELECTRICAL DATA (ALL INDOOR UNITS RECEIVE POWER FROM OUTDOOR UNIT; VALUES LISTED ARE TOTAL)						
POWER SOURCE		230/208-60-1	230/208-60-1		230/208-60-1	230/208-60-1
MIN. AMPACITY	A	15	15		15	22.5
COOLING WATTS	W	1600	1900		2300	3900
MAX. TD FUSE/BREAKER	A	20	20		20	30
REFRIGERATION SYSTEM						
REFRIGERANT		R410A	R410A		R410A	R410A
COMPRESSOR TYPE		Inverter	Inverter		Inverter	Inverter
CONNECTIONS		Flare	Flare		Flare	Flare
LIQUID LINE O.D.	in	1/4"	1/4"	1/4"	1/4"	1/4"
SUCTION LINE O.D.	in	3/8"	3/8"	3/8"	3/8"	3/8"
FACTORY PRECHARGE	ft	98'	98'		98'	165'
MAX. LINE LENGTH	ft	Each unit:82 Total:98	Each unit:82 Total:98		Each unit:82 Total:98	Each unit:82 Total:230
MAX. HEIGHT DIFFERENCE	ft	33'	33'		33'	49'
DIMENSIONS & WEIGHT						
INDOOR UNIT						
W X H X D	in	31 1/8" x 10 7/8" x 8 1/2" ea.	31 1/8" x 10 7/8" x 8 1/2" ea.		31 1/8" x 10 7/8" x 8 1/2" ea.	31 1/8" x 10 7/8" x 8 1/2" ea.
NET WEIGHT	lbs	21 ea.	21	21	21 ea.	21 ea.
SHIPPING WEIGHT	lbs	26 ea.	26	26	26 ea.	26 ea.
OUTDOOR UNIT						
W X H X D	in	35 3/8" x 32 5/8" x 13"	35 3/8" x 32 5/8" x 13"		35 3/8" x 32 5/8" x 13"	35 3/8" x 32 5/8" x 13"
NET WEIGHT	lbs	151	151		151	159
SHIPPING WEIGHT	lbs	164	164		164	172

# SPECIFICATIONS

## TRI-ZONE HEAT PUMPS

PERFORMANCE RATINGS								
SYSTEM MODEL NO.	M27TYF	M30TYF		M33TYF		M36TYF1		M36TYF2
INDOOR MODEL	3 x MW09Y3FM	2 x MW09Y3FM	MW12Y3FM	MW09Y3FM	2 x MW12Y3FM	2 x MW09Y3FM	MW18Y3FM	3 x MW12Y3FM
OUTDOOR MODEL	MR36TQY3F	MR36TQY3F		MR36TQY3F		MR36TQY3F		MR36TQY3F
CAPACITY COOLING	Btu 9200 ea.	9300 ea.	11800	9400	11800 ea.	9100 ea.	17000	11700 ea.
CAPACITY COOLING MIN - MAX	Btu 5100-11300 ea.	5100-11300 ea.	5100-13600 ea.	5100-11300 ea.	5100-13600 ea.	5100-11300 ea.	6100-19000 ea.	5100-13600 ea.
SENSIBLE HEAT RATIO	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
CAPACITY HEATING @ 47°F	Btu 11200 ea.	11000 ea.	14000	10700	13600 ea.	9800 ea.	18400	12700 ea.
CAPACITY HEATING MIN - MAX	Btu 5100-13000 ea.	5100-13000 ea.	5100-15400 ea.	5100-13000 ea.	5100-15400 ea.	5100-13000 ea.	5500-23000 ea.	5100-15400 ea.
CAPACITY HEATING @ 17°F	Btu 8300 ea.	7700 ea.	9800	7200	9200 ea.	6700 ea.	12500	8600 ea.
HSPF	9.0	9.0		9.0		9.0		9.0
SEER	15.0	15.0		15.0		15.0		15.0
EER	10.0	9.2		8.8		8.8		8.8
MOISTURE REMOVAL	Pts/h 2.9 ea.	2.9 ea.	3.7	2.9	3.7 ea.	2.9 ea.	5.7	3.7 ea.
AIRFLOW (QUIET, LOW, MED, HIGH)	CFM 185,220,260,295	185,220,260,295	215,250,305,355	185,220,260,295	215,250,305,355	185,220,260,295	240,290,355,415	215,250,305,355
SOUND RATING - INDOOR	dB-A 27,29,33,37	27,29,33,37	30,34,39,42	27,29,33,37	30,34,39,42	27,29,33,37	33,39,42,46	30,34,39,42
SOUND RATING - OUTDOOR	dB-A 52	52		52		52		52
OPERATING RANGE (HEATING)	°F 0 - 115 (14 - 75)	0 - 115 (14 - 75)		0 - 115 (14 - 75)		0 - 115 (14 - 75)		0 - 115 (14 - 75)
EST. YEARLY OPERATING COST	\$216	\$254	\$254	\$296	\$296	\$320	\$320	\$318
ELECTRICAL DATA (ALL INDOOR UNITS RECEIVE POWER FROM OUTDOOR UNIT; VALUES LISTED ARE TOTAL)								
POWER SOURCE	230/208-60-1	230/208-60-1		230/208-60-1		230/208-60-1		230/208-60-1
MIN. AMPACITY	A 22.5	22.5		22.5		22.5		22.5
COOLING WATTS	W 2710	3180		3710		4000		3980
MAX. TD FUSE/BREAKER	A 30	30		30		30		30
REFRIGERATION SYSTEM								
REFRIGERANT	R410A	R410A		R410A		R410A		R410A
COMPRESSOR TYPE	Inverter	Inverter		Inverter		Inverter		Inverter
CONNECTIONS	Flare	Flare		Flare		Flare		Flare
LIQUID LINE O.D.	in 1/4"	1/4"		1/4"		1/4"	1/4"	1/4"
SUCTION LINE O.D.	in 3/8"	3/8"		3/8"		3/8"	1/2"	3/8"
FACTORY PRECHARGE	ft 165'	165'		165'		165'		165'
MAX. LINE LENGTH	ft Each unit:82 Total:230	Each unit:82 Total:230		Each unit:82 Total:230		Each unit:82 Total:230		Each unit:82Total:230
MAX. HEIGHT DIFFERENCE	ft 49'	49'		49'		49'		49'
DIMENSIONS & WEIGHT								
INDOOR UNIT								
W X H X D	in 31 1/8" x 10 7/8" x 8 1/2" ea.	31 1/8" x 10 7/8" x 8 1/2" ea.		31 1/8" x 10 7/8" x 8 1/2"		31 1/8" x 10 7/8" x 8 1/2"		31 1/8" x 10 7/8" x 8 1/2"
NET WEIGHT	lbs 21 ea.	21 ea. 21		21 21 ea.		21 ea. 21		21 ea.
SHIPPING WEIGHT	lbs 26 ea.	26 ea. 26		26 26 ea.		26 ea. 26		26 ea.
OUTDOOR UNIT								
W X H X D	in 35 3/8" x 32 5/8" x 13"	35 3/8" x 32 5/8" x 13"		35 3/8" x 32 5/8" x 13"		35 3/8" x 32 5/8" x 13"		35 3/8" x 32 5/8" x 13"
NET WEIGHT	lbs 159	159		159		159		159
SHIPPING WEIGHT	lbs 172	172		172		172		172

# SPECIFICATIONS

## CEILING AND FLOOR INSTALLED HEAT PUMPS

PERFORMANCE RATINGS				
SYSTEM MODEL NO.		S24YF	S36YF	C24YF
INDOOR MODEL		MS24Y3F	MS36Y3F	MC24Y3F
OUTDOOR MODEL		MR24UY3F	MR36Y3F	MR24UY3F
CAPACITY COOLING	Btu	22200	34100	22200
CAPACITY COOLING MIN - MAX	Btu	5000-27300	8500-36000	5000-27300
SENSIBLE HEAT RATIO		0.62	0.67	0.64
CAPACITY HEATING @ 47°F	Btu	24200	38200	24200
CAPACITY HEATING MIN - MAX	Btu	5000-29000	9200-42700	5000-29000
CAPACITY HEATING @ 17°F	Btu	20,100	27,100	20,100
HSPF		8.5	8.5	8.5
SEER		15.0	14.0	15.0
EER		9.8	8.1	10.6
MOISTURE REMOVAL	Pts/h	7.4	7.4	6.4
AIRFLOW (LOW, MED, HIGH)	CFM	371, 436, 518	842, 977, 1089	436, 536, 618
SOUND RATING - INDOOR	dB-A	38, 43, 47	41, 45, 48	38, 43, 45
SOUND RATING - OUTDOOR	dB-A	53	54	53
OPERATING RANGE (HEATING)	°F	0 - 115 (14 - 75)	0 - 115 (14 - 75)	0 - 115 (14 - 75)
EST. YEARLY OPERATING COST		\$180	\$337	\$168
ELECTRICAL DATA				
POWER SOURCE		230/208-60-1	230/208-60-1	230/208-60-1
MIN. AMPACITY	A	15.5	23	15.5
COOLING WATTS	W	2250	4220	2100
MAX. TD FUSE/BREAKER	A	20	30	20
REFRIGERATION SYSTEM				
REFRIGERANT		R410A	R410A	R410A
COMPRESSOR TYPE		Inverter (Twin Rotary)	Inverter (Twin Rotary)	Inverter (Twin Rotary)
CONNECTIONS		Flare	Flare	Flare
LIQUID LINE O.D.	in	3/8"	3/8"	3/8"
SUCTION LINE O.D.	in	5/8"	5/8"	5/8"
FACTORY PRECHARGE	ft	50'	50'	50'
MAX. LINE LENGTH	ft	165'	165'	165'
MAX. HEIGHT DIFFERENCE	ft	66'	98'	66'
DIMENSIONS & WEIGHT				
INDOOR UNIT				
W X H X D	in	39" x 7 7/8" x 25 3/4"	65 3/8" x 9 1/2" x 27 1/2"	32 5/8" x 9 5/8" x 32 5/8"
NET WEIGHT	lbs	62	106	75
SHIPPING WEIGHT	lbs	82	134	97
OUTDOOR UNIT				
W X H X D	in	35 3/8" x 32 5/8" x 13"	35 3/8" x 32 5/8" x 13"	35 3/8" x 32 5/8" x 13"
NET WEIGHT	lbs	141	141	141
SHIPPING WEIGHT	lbs	154	154	154

NOTE: All models have low ambient capabilities built in.  
Capacity is reduced as 0 degrees Fahrenheit is approached.

NOTE: All R410A models have 1/2" UNF 20 thread per inch charging and vacuuming ports. An adapter must be used for 1/4" gauges. Adapter part number 67270018 is available through Friedrich parts distributors.

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





# QUIET WITH POWERFUL AIR FLOW.

## And outstanding efficiency

Friedrich PTACs are designed for quiet operation with maximum comfort and dependable performance.



## FRIEDRICH ENGINEERED FOR QUIETER PERFORMANCE.

**Large, tangential fan generates powerful, quiet airflow.**

Friedrich has a one-tier model line up, so you'll find more premium features standard on each and every Friedrich PTAC.

### Improved air distribution for better comfort

Tangential blower wheel has nearly 5x the surface area of a typical fan used on other PTACs. The result is more uniform airflow over a wider path for faster, more even air distribution throughout the room and improved sound levels.

Air is blown over the entire length of the tangential wheel into the room in a uniform laminar airflow.

### Ultra quiet, two motor design

With separate indoor and outdoor motors, the indoor motor can run at slower speeds which reduces sound levels indoors.

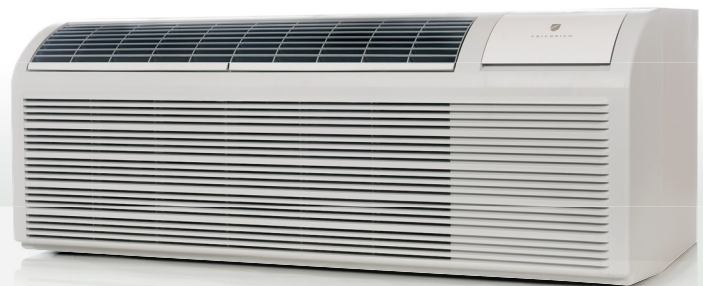
**PTAC  
Electric Heat**  
COOLING  
7700-15000 Btu  
**Up to 12.2 EER**  
ELECTRIC HEAT  
6800-17000 Btu

**PTAC  
Heat Pump**  
COOLING  
7700-14500 Btu  
**Up to 12.2 EER**  
HEATING  
6300-13300 Btu



### NEW

WRT1  
Wireless thermostat  
for simpler, flexible  
placement



# RELIABILITY BEGINS WITH DURABLE MATERIALS AND THE HIGHEST QUALITY COMPONENTS.

- Steel base pan and sleeve that are powder-coat painted to resist rust and corrosion
- Outdoor coil and plates are stainless steel to resist rust and corrosion (other PTACs use lower grade steel)
- Every PTAC unit is run-tested at the factory to reduce problems in the field
- 14 numeric service error codes stored in memory facilitate rapid unit diagnostics
- Easy access, long-life filters simplify maintenance that extends the life of the product
- Room freeze protection- initiates heat if temperature falls to 40°F in an unoccupied room
- Random compressor restart protects electrical systems from overload when power is restored
- Tamper-resistant grille and durable front panel with break-proof control door design
- Indoor coil frost sensor protects the compressor to lengthen the life of the unit
- 2 year full warranty on parts and labor; 5 year limited warranty\*
- Backed by a nationwide service network, and U.S.-based Friedrich expert technical team

# ENERGY EFFICIENT AND ENERGY SMART PTACs

- Super efficient refrigeration design with EERs up to 12.2; COPs up to 3.4
- All units are available in energy efficient heat pump models
- Electronic defrost control ensures more run time in efficient heat pump mode
- Ability to adjust low/high temperature range limits for reduced energy usage
- Thicker steel inner-wall and foam construction decreases thermal transfer and energy loss
- Condensate removal system uses slinger ring technology to cool the coil and increase efficiency
- Desk control ready allowing hotel owners to control units from a central location

## Modular design for easy access to key components



### UNIVERSAL HEATER POWER CORD

Connect as easily as a phone jack. PTAC units ship complete with the standard power cord for that model (7K, 9K and 12K = 3.0 kW and 15K = 5.0 kW). If you want to adjust the heater size on any PTAC unit simply unplug the attached power cord and connect the desired size. It is important to ensure that all wiring and building connections are sized properly for the power cord as well.

Universal heater simplifies ordering and installation. For distributors, this means stocking one PTAC model and the 2 optional cords in place of 3 separate PTACs.

### REMOTE THERMOSTAT QUICK-CONNECT WIRING MODULE

Pulls out and plugs in for easier wiring during initial installation. Easier unit change-out; no need to reconnect and tighten down thermostat wires.

Indoor coil frost sensor protects compressor  
Reversible louvers for air path modifications

Easy-access, interchangeable antimicrobial air filters



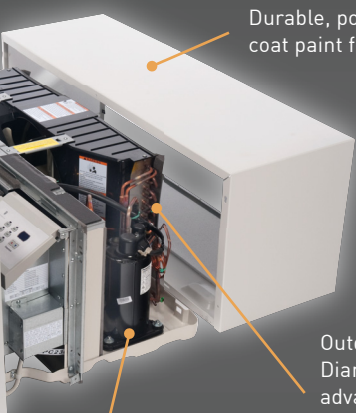
Universal power cord

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

RECEPTACLES AND FUSE TYPES						
Voltage	230V			265V		
Amps	15	20	30	15	20	30
Heater Size	0, 2.0 kW	3.0 kW	5.0 kW	2.0 kW	3.0 kW	5.0 kW
Receptacles						

ents

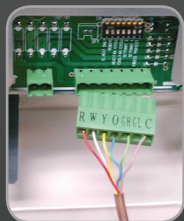
PDXWS WALL SLEEVE  
DIMENSIONS:  
16" H x 42" W x 13 3/4" D  
FRONT COVER DIMENSIONS:  
16" H x 42" W x 7 3/4" D  
CUT OUT DIMENSIONS:  
16 1/4" x 42 1/4"



Durable, powder  
coat paint finish

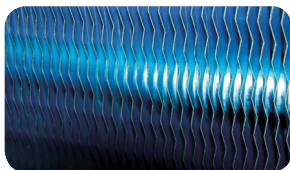
Outdoor coil has  
Diamonblue™  
advanced corrosion  
protection and  
stainless steel  
endplates

Quiet, efficient rotary  
compressor mounted on  
large vibration isolators



Remote thermostat quick-connect wiring module

  
**DIAMONBLUE™**  
Advanced Corrosion Protection



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

## MORE STANDARD FEATURES

### Comfort & Dehumidification

- Removes up to 3.2 pts./hr. of moisture in cool mode to improve comfort and reduce the chance of mold and mildew growth
- Intuitive unit controls are easy to operate and operate either set point or room temperature
- Owner-configurable 'Constant Fan' mode
- '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
- The digital control panel will automatically run the fan to briefly sample the room temperature every nine minutes to ensure desired conditions are maintained

### Maintenance & Installation Features

- Universal heaters with heat capacities determined by the power cords; achieve up to 48 PTAC SKUs with 16 units by changing the power cord size
- Remote thermostat pop-out wiring module allows easier wiring and unit changeout without rewiring thermostat
- May be installed flush with the floor
- Reversible indoor air louvers
- Condensate disposal system
- Improved weather barrier
- Emergency heat override ensures heat mode operation even in the unlikely event of compressor failure
- Modular product design ensures easy access to key components for cleaning and repairs- including washable, lift-out air filters
- Depth of front is 7 3/4 inches which preserves indoor floor space

### Energy Usage & Management

- Energy management system compatible
- Control with a wired or wireless digital wall thermostat

### Health & IAQ

- Fresh air damper to bring in fresh outside air when desired
- Two, easy-access washable, antimicrobial air filters
- Up to 3.2 pts./hr. dehumidification

### Sound Reduction Technology

- Two permanently lubricated fan motors for added durability and reduced sound levels indoors
- Quiet, efficient rotary compressor mounted with vibration isolators to keep the compressor running smoothly and quietly
- High-density insulation blanket blocks outdoor noise

### Durability

- Faultless sure-hold front cover system securely attaches the front each time
- Random compressor restart protects electrical systems from overload when power is restored
- Quiet, efficient rotary compressor mounted with vibration isolators to keep the compressor running smoothly and quietly
- Steel base pan and sleeve
- Stainless steel outdoor end plates
- Room freeze protection

The tangential blower wheel has 5x the surface area of blowers used by other PTACs. It creates a wide path air flow that reaches the furthest corner of the guest room.



**2 YR.**  
FULL WARRANTY  
PARTS AND LABOR

**5 YR.**  
LIMITED WARRANTY

\*Effective 01/01/13. See warranty documentation for full details.

## OPTIONAL ACCESSORIES

### WALL SLEEVE PDXWS

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

16" H x 42" W x 13 3/4" D

### SLEEVE EXTENSION RETROFIT KIT PXSE

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

### DEEP WALL SLEEVES PDXWSEXT18

For walls up to 17 1/2" deep.

### PDXWSEXT24

For walls up to 23 1/2" deep.

### PDXWSEXT (Custom depth wall sleeve)

One-piece extended wall sleeve for walls from 13 1/4" to 25 1/2" deep are available by special order.

### DIGITAL REMOTE THERMOSTAT RT6

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.

### WRT1

Wireless, single stage, wall-mounted digital thermostat with two fan speeds. Features backlit display and multiple configuration modes.

### REMOTE THERMOSTAT ESCUTCHEON KIT PDXRTA

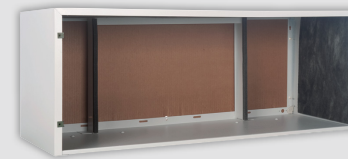
Kit contains escutcheons that can be placed over the factory control buttons when a remote wall mounted thermostat is used. The escutcheon directs the user to the wall thermostat for operation and retains the LED window to display error codes and diagnostic information. 10 pack.

### CONDUIT KIT /JUNCTION BOX PXCJA

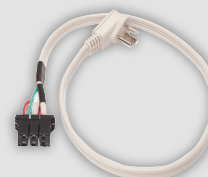
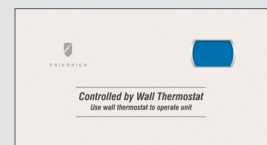
Hard wire conduit kit with junction box for 208/230V and 265V units (subbase not required). Kit includes a means of quick disconnect for easy removal of the chassis.

### POWER CORDS

		Length
PXPC23000	LCDI 230V 15A Cord - 00 kW (for use PDE models only)	6 ft.
PXPC23015	LCDI 230V 15A Cord - 2.0 kW	6 ft.
PXPC23020	LCDI 230V 20A Cord - 3.0 kW	6 ft.
PXPC23030	LCDI 230V 30A Cord - 5.0 kW	6 ft.
PXPC26515	Non-LCDI 265V 15A Cord - 2.0 kW	18 inches
PXPC26520	Non-LCDI 265V 20A Cord - 3.0 kW	18 inches
PXPC26530	Non-LCDI 265V 30A Cord - 5.0 kW	18 inches



Deep wall sleeve extension PDXWSEXT18 shown with weather panel in place



# OPTIONAL ACCESSORIES

## STANDARD GRILLE PXGA

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

## ARCHITECTURAL GRILLES

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

- PXAA Clear extruded aluminum.
- PXBG Beige acrylic enamel.
- PXSC Available in custom colors.

## DECORATIVE SUBBASE (black)

### PXSBA

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

## ELECTRICAL SUBBASE

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

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

## PXFTA

Antimicrobial air filters. 10 pack.

## CONDENSATE DRAIN KIT

### PXDR10

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

## LATERAL DUCT ADAPTER

### PDXDAA

Attaches to the Friedrich PTAC/PTHP unit to direct up to 35% of the total airflow to a second room. The unit-mounted duct plenum features a front-mounted aluminum grille that has two positions to provide the most optimal air direction. The air may be directed to either the left or the right of the unit through the supplied 3.5 H" x 7 W" x 47" L plenum. Plenum may be cut to length by the installer. Kit includes duct plenum, front grille, 47" duct extension, duct discharge grille, duct end cap and all necessary mounting hardware.

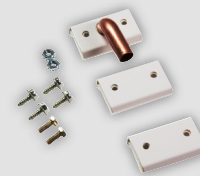
## LATERAL DUCT EXTENSION

### PDXDEA

Additional 3.5 H" x 7" W x 47" L plenum for use with the LATERAL DUCT ADAPTER. A maximum of 3 duct extensions total may be used. Note: Ducted airflow is reduced as duct length is increased.



PXAA



PDXDAA and PDXDEA ship together

# SPECIFICATIONS

## PDE Series

Model		PDE07K	PDE07R	PDE09K	PDE09R	PDE12K	PDE12R	PDE15K	PDE15R	
<b>PERFORMANCE DATA:</b>										
Cooling Btu		7700/7600	7700	9000/8800	9000	12000/11800	12000	15000/14600	15000	
Cooling Watts		640/620	640	800/770	800	1120/1120	1120	1530/1510	1530	
Energy Efficiency Ratio	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	
Moisture Removal	Pts./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	
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	27.0	23.0	32.6	27.8	
Compressor RLA		2.8	2.4	3.7	2.9	5.0	4.3	6.6	5.6	
Outdoor Fan Motor	HP	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>										
Sleeve Dimensions H x W x D	In.	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	
Dimensions with front H x W x D	In.	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	
Cut Out Dimensions H x W	In.	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	
Net Weight	Lbs.	106	106	111	111	116	116	119	119	
Shipping Weight	Lbs.	126	126	131	131	136	136	139	139	
R-410A Charge	Oz.	23.63	24.69	33.51	33.51	35.27	35.98	38.10	40.21	
Dimensions with Packaging	In.	19.75"x23"x43.5" (all models)								

## PDH Series

Model		PDH07K	PDH07R	PDH09K	PDH09R	PDH12K	PDH12R	PDH15K	PDH15R	
<b>PERFORMANCE DATA:</b>										
Cooling	Btu	7700/7600	7700	9000/8800	9000	12000/11800	12000	14500/14200	14500	
Cooling Watts		640/620	640	800/770	800	1120/1120	1120	1480/1460	1480	
Energy Efficiency Ratio	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	Btu	6300/6100	6300	8100/7900	8100	10700/10500	10700	13300/13000	13300	
Heating Watts		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	3.0	
Moisture Removal	Pts./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	
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	27.0	23.0	36.0	26.0	
Compressor RLA		2.8	2.4	3.6	3.2	5.0	4.3	6.5	5.3	
Outdoor Fan Motor	HP.	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>										
Sleeve Dimensions H x W x D	In.	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	16"x42"x13 3/4"	
Dimensions with front H x W x D	In.	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	16"x42"x21 1/2"	
Cut Out Dimensions H x W	In.	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	16 1/4"x42 1/4"	
Net Weight	Lbs.	108	108	113	113	118	118	121	121	
Shipping Weight	Lbs.	128	128	133	133	138	138	141	141	
R-410A Charge	Oz.	23.63	24.69	33.51	35.27	35.27	35.98	39.86	36.33	
Dimensions with Packaging	In.	19.75"x23"x43.5" (all models)								

Operating range 0°-115°F.

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

Five-year warranty limited to installations in the United States, Puerto Rico, Mexico and Canada only.

See warranty documentation for full details.



Electric Heat Data

Model	PDE07K0	PDE/PDH07K				PDE/PDH07R		
Heater Watts	0 Kw	2000	1635	3000	2450	2000	3000	
Voltage	230/208	230	208	230	208	265		
Heating Btu	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

Model	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 Btu	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	14.6	9.8	14.6	24.1
Branch Circuit Fuse	Amps	15	15	15	20	20	30	30	15	20	30

Electric Heat Data

Model	PDE12K0	PDE/PDH12K						PDE/PDH12R			
Heater Watts	0 Kw	2000	1635	3000	<b>2450</b>	5000	4090	2000	3000	5000	
Voltage	230/208	230	208	230	208	230	208	265			
Heating Btu	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	14.6	9.8	14.6	24.1
Branch Circuit Fuse	Amps	15	15	<b>15</b>	20	20	30	30	15	20	30

Electric Heat Data

Model	PDE15K0	PDE/PDH15K						PDE/PDH15R			
Heater Watts	0 Kw	2000	1635	3000	2450	5000	<b>4090</b>	2000	3000	5000	
Voltage	230/208	230	208	230	208	230	208	265			
Heating Btu	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	<b>11.4</b>	10.0	16.8	<b>15.6</b>	27.2	14.6	9.8	14.6	24.1
Branch Circuit Fuse	Amps	15	<b>15</b>	15	20	20	30	30	15	20	30

# TOTALLY CONCEALED INSTALLATION

Friedrich Vert-I-Pak® air conditioners provide a more homelike appearance and quieter operation.



A quiet and energy efficient option for extended stay properties, suites, assisted living, student housing, and commercial spaces.

## Vert-I-Pak® is a superior product

### What you'll find on Friedrich Vert-I-Pak®

1. Chassis installs into a wall plenum and is held firmly in place by a sealing gasket, reducing noise from vibration transfer.
2. ½ inch foil-backed insulation added on the inside of the chassis to reduce sound transmission into the guest room.
3. Extra thick, vibration-absorbing rubber grommets mounted on durable base that is engineered for structural and acoustic integrity.
4. Dynamically balanced blower with large, vibration-absorbing motor mounts for smooth and quiet operation.
5. Patented telescoping plenums (accessory) easily adapt to more installations.
6. 5 year limited warranty includes labor.

### What you'll find on many competitor's products

1. Chassis is screwed into the wall plenum. Metal-on-metal contact transfers vibration, increasing operating noise under typical conditions. Noise is transferred through the walls and into the room.
2. No insulation on the unit to reduce noise transmission into the guest room.
3. Hard plastic feet on the unit base which are less durable and transfer harsh vibration noise.
4. Different plenums needed based on varying wall depths.
5. No labor warranty.

Vert-I-Pak®  
COOLING  
9400-17000 Btu  
**Up to 9.8 EER**  
ELECTRIC HEAT  
AND HEAT PUMPS



Vert-I-Pak®  
COOLING  
23000 Btu  
**9.5 EER**  
ELECTRIC HEAT  
AND HEAT PUMP



COOL & HEAT

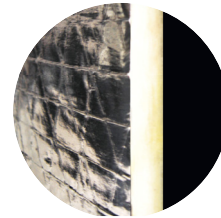
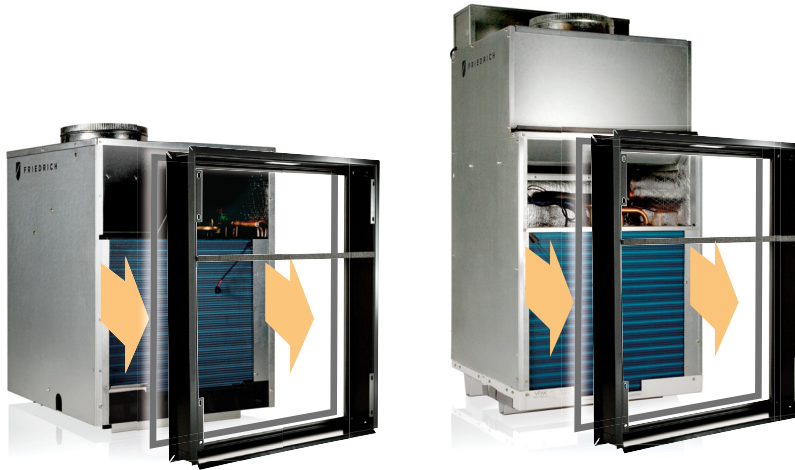


# FRIEDRICH ENGINEERED FOR QUIETER PERFORMANCE

With the aesthetics of a central air system and the simplicity of a PTAC.

## Friedrich's unique 'Free Floating' chassis design

The chassis slides into the wall plenum and a gasket firmly seals the chassis to the patented telescoping plenum. This eliminates vibration noises that are transmitted into the room in competitor's metal-on-metal fixed installations.



Foil-backed insulation blanket inside the cabinet reduces sound transmitted into the guest room

## Reliable and durable

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

## Easy installation

- Can be installed from any interior side (front, right or left)
- Compact and lightweight, weighs as little as 125 lbs.
- Easy installation; does not require an HVAC technician
- Ductable to multiple rooms
- All units are ready to install with only electrical hook up needed to be up and running
- Central desk control ready
- 24-volt remote wireless or wired thermostat ready
- 10" crimped and beaded duct-collar ready to attach flex duct
- Prewired, charged and piped
- Patented telescoping wall plenums adjust to fit varying exterior wall thicknesses
- All units are shipped (on pallet) with return air filter
- Rear or side wall sleeves
- Condensate removal system uses slinger ring technology to cool the coil and increase efficiency
- Primary condensate removal system provided thru 3/4" pipe fittings for more placement options
- Secondary overflow from primary drain\*

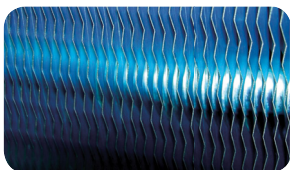
\* 24000 Btu model uses secondary gravity-fed drain

## NEW

Wireless thermostat for easy installation and flexible placement options



  
**DIAMONBLUE™**  
Advanced Corrosion Protection



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

# BETTER AESTHETICS OUTDOORS

Eliminates the clutter of outdoor condensing units and the need for vandalism barriers.



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## A better heating and cooling option inside and out

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



Installs in a small mechanical closet and can be ducted to multiple rooms.

---

## A better choice than whole building solutions

### ADVANTAGES INCLUDE:

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



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## Improved guest comfort

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

# SINGLE PACKAGE VERTICAL AIR CONDITIONERS

## OPTIONAL ACCESSORIES

### ARCHITECTURAL LOUVER VPAL2 and VPSC2

Extruded aluminum grille that attaches to the outdoor section of the wall plenum. Takes in fresh air and returns condensed air. VPSC2 can be ordered in custom colors.

DIMENSIONS: 25 9/16" W x 31 1/16" H



### WALL PLENUM VPAWP1-8, VPAWP1-14

Two-part sleeve that telescopes in and out. Sits inside the exterior wall penetration.

VPAWP1-8 telescopes from 5 1/2"-8"  
VPAWP1-14 telescopes from 8"-14"

DIMENSIONS: 24 1/8" W x 30 3/8" H  
CUTOUT DIMENSIONS: 24 5/8" W x 30 7/8" H



### FIRST COMPANY SLEEVE ADAPTER VPASA1

Single piece, welded adapter allows retrofit into existing First Company SPXR-series single package vertical unit wall sleeve and louver. Easy connection to Friedrich chassis.



### RETURN AIR GRILLE/ ACCESS PANEL VPRG4

Hinged panel allows access to unit and return air filter. A field-supplied filter (25" x 20") should be mounted on the inside the grille. Panel can be mounted with return air openings high or low on the door for optimum sound attenuation.

DIMENSIONS: 29" W x 58" H  
CUTOUT DIMENSIONS: 27" W x 55 3/4" H



### SINGLE STAGE THERMOSTAT RT6

Single stage, wall-mounted digital thermostat with two fan speeds and backlight for control of Friedrich VERT-I-PAK.



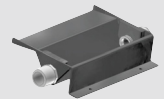
### WRT1

Wireless, single stage, wall-mounted digital thermostat with two fan speeds and backlight for control of Friedrich VERT-I-PAK.

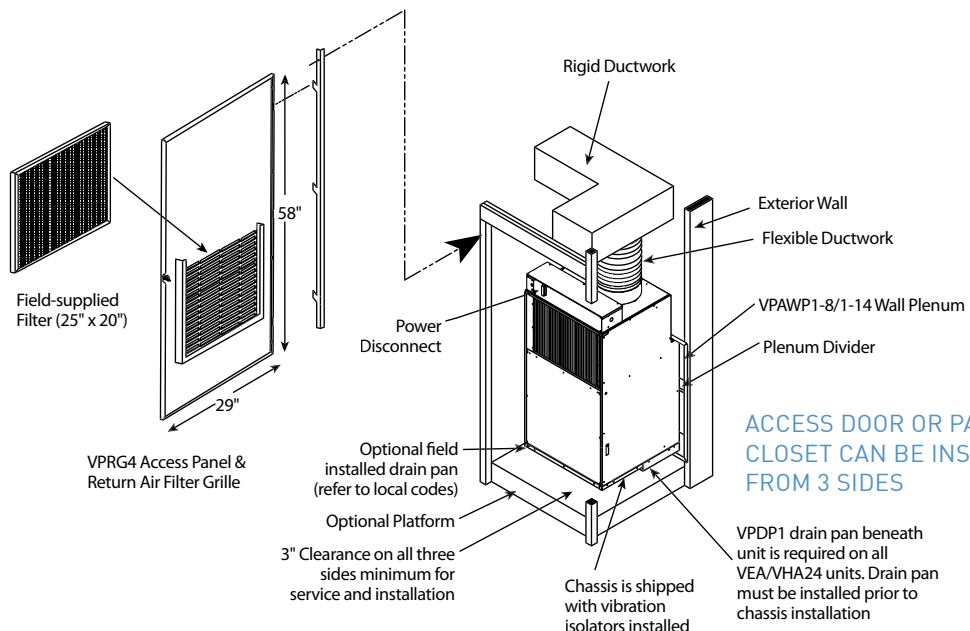


### DRAIN PAN VPDP1

For VEA/VHA24 models. May be installed prior to chassis for easy installation/removal.



## Typical Vert-I-Pak® installation



# SPECIFICATIONS

## SINGLE PACKAGE VERTICAL AIR CONDITIONERS

Model	VEA09K	VEA12K	VEA18K	VEA24K	VHA09K	VHA12K	VHA18K	VHA24K
<b>COOLING DATA</b>								
COOLING Btu	9400/9000	11500/11200	17000/16500	23000/22700	9200/8900	11500/11200	17000/16800	23000/22800
POWER (W)	959/918	1162/1140	1882/1860	2421/2389	939/908	1186/1155	1882/1860	2527/2505
EER	9.8/9.8	9.8/9.8	9.0/9.0	9.5/9.5	9.8/9.8	9.7/9.7	9.1/9.1	9.1/9.1
SENSIBLE HEAT RATIO	0.74	0.72	0.70	0.70	0.74	0.72	0.70	0.70
HEATER SIZE	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0/7.5/10.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0	2.5/3.4/5.0/7.5/10.0
<b>HEAT PUMP DATA</b>								
HEATING Btu	—	—	—	—	8500/8000	10800/10600	16000/15000	20000/19500
COP @ 47F	—	—	—	—	3.0/3.0	3.0/3.0	3.0/3.0	3.0/3.0
HEATING POWER (W)	—	—	—	—	830/811	1055/1035	1560/1540	1953/1953
HEATING CURRENT (A)	—	—	—	—	3.6/3.9	4.6/4.9	7.5/8.2	8.5/9.4
<b>ELECTRICAL DATA</b>								
VOLTAGE (1 PHASE, 60 Hz)	230/208	230/208	230/208	230/208	230/208	230/208	230/208	230/208
VOLT RANGE	253-198	253-198	253-198	253-198	253-198	253-198	253-198	253-198
COOLING CURRENT (A)	4.2/4.4	5.2/5.4	8.1/8.6	10.0/10.4	4.1/4.3	5.3/5.5	8.2/8.6	10.6/10.9
AMPS L.R.	22	30	42	34.8	18.5	26	42	34.8
AMPS F.L.	3.7	4.5	7.8	9.5	3.6	5	7.8	9.5
INDOOR MOTOR (HP)	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
INDOOR MOTOR (A)	1.2	1.2	1.2	1.94	1.2	1.2	1.2	1.94
OUTDOOR MOTOR (HP)	—	—	—	1/4	—	—	—	1/4
OUTDOOR MOTOR (A)	—	—	—	0.85	—	—	—	0.85
<b>AIRFLOW DATA</b>								
INDOOR CFM*	375	350	450	610	375	375	450	610
VENT CFM	60	60	60	60	60	60	60	60
MAX. ESP	.3"	.3"	.3"	.4"	.3"	.3"	.3"	.4"
<b>PHYSICAL</b>								
DIMENSIONS (W x D x H)	23"x23"x32"	23"x23"x32"	23"x23"x32"	23"x23"x47"	23"x23"x32"	23"x23"x32"	23"x23"x32"	23"x23"x47"
NET WEIGHT (LBS)	114	124	144	167	114	125	144	167
SHIPPING WEIGHT (LBS)	125	135	155	220	125	135	155	220
TEST SETTING	Low	Low	High	Low	Low	High	High	Low
R410A CHARGE (oz)	33.5	32	48.1	65	38.9	44	48	65

### NOTES:

#### Cooling Standards:

95°F DB/75°F WB outdoor, 80°F DB/67°F WB indoor

#### Heating Standards:

47°F DB/43°F WB outdoor, 70°F DB/60°F WB indoor

\*Normal Value Wet Coil @ .1" ESP.

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



Friedrich Air Conditioning Co. | 10001 Reunion Place, Suite 500 | San Antonio, TX 78216 | 800.541.6645 | www.friedrich.com