

Packaged Terminal Air Conditioners & Heat Pumps





PTAC-PRC001-EN

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Introduction



The new Trane packaged terminal air conditioners (PTACs) and heat pumps are ideally suited for offices, apartments, hotels, motels and institutional homes. Key benefits which make the units a wise choice are:

- Energy efficiencyReliabilityQuiet operation

- Comfort
- Easy-to-use controls
- Attractive and compact design
- Ease of installation and servicing



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Features and Benefits

Energy Efficiency

Trane PTAC units and heat pumps are among the most efficient in the industry, with EERs of up to 11.6 and COPs of up to 3.3. The efficient design of the PSC motor and airflow pattern help to reduce the energy consumption of the fan. Packaged terminal heat pumps tend to be more efficient than electric heat only. In fact, operating savings may result in a payback of less than one year. During heating operation, refrigerant in the heat pump runs in the reverse direction of the cooling operation. The outside air is cooled, thereby giving up heat to the refrigerant in the heat pump. This heat is then pumped back inside, resulting in up to three Btu's of heat for every Btu of energy consumed. During cooling operation, heat is removed from the building as the air is cooled. This heat proceeds through the compression cycle and is ultimately rejected to the outside air. Energy-saving options available with PTAC units include:

Front Desk Contact Point

Each unit has low voltage interface capability with a field-supplied ON/OFF switch. Turn off heating or cooling to unoccupied rooms.

Fan Mode Switch

Select continuous fan operation or cycle the fan ON and OFF with the compressor or heat operation. The switch is concealed to help prevent tampering by unauthorized personnel.

Temperature Limiter

This unit-mounted mechanical control allows guests to adjust in-room temperature settings within a preprogrammed range.

Reliability

These features help assure reliable operation:

Freeze Protection

When the unit senses temperatures of 40°F or below, the unit activates the fan motor and either the electric resistance heater or the hydronic heater to help prevent pipes or fixtures from freezing. This also overrides front desk control of the unit mounted or wall sensor.

Automatic Emergency Heat

Each unit automatically switches over to electric resistance heat if for any reason the heat pump compressor system fails or if the heating load is greater than the unit capacity.

Random Restart

Avoid troublesome power surges that can damage electrical circuits. Each unit has a random restart circuit to prevent all units from restarting at one time after power disruption.

Compressor Restart Delay

Extend compressor life. The unit automatically delays any restart attempt by three minutes to allow the refrigerant pressures time to equalize.

Quiet Operation

State-of-the-art design and construction provide a quiet environment for guests to relax. Contributing to the quiet operation of the unit are: •An acoustically insulated bulkhead.

•Acoustical rubber-in-shear isolators under the compressor.

An isolated fan motor.

Operating sound levels are further dampened when the unit is in the LOW FAN mode of operation.

Comfort

Dehumidification and air filtration are both factors affecting comfort. When the air is dehumidified, occupants feel more comfortable at higher temperatures. Trane PTACs help maintain lower humidity levels in rooms, without the need for expensive add-on's. Another benefit is that dehumidification can help extend the life of furniture, wall coverings and fixtures. When ventilation air is filtered, rooms stay cleaner, longer. The hidden ventilation air intake filters outside air to reduce dust and pollen.

User-Friendly Controls

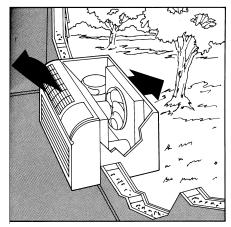
Controls are easy to read, understand and activate.



Features and Benefits

Remote Thermostat Control

Each unit is built to be operated from a remote-mounted thermostat, if desired. Even if it is started without a remote, a built-in low voltage power source can accommodate a large variety of thermostat choices — manual, auto changeover or programmable — at a later date.



Remote Temperature Sensing Occupants enjoy ultimate comfort with consistent climate control. Attach an optional, inexpensive remote thermistor temperature sensing device and temperatures are held more closely to the chosen room setting.

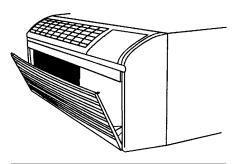
Attractive and Compact Design The unit front has a sleek seven-inch depth, one of the shallowest silhouettes in the industry today. To inhibit tampering, the front can be secured to the chassis with hidden screws. Our unit's new stylish design and neutral color make it compatible with virtually any room decor or architectural design. It blends into the room's color scheme.

Special Paint Protection

The electrodeposition paint system on the exterior panels assure the unit and wall sleeve will withstand years of moisture and atmospheric pollutants without giving up its looks to rust and corrosion.

Ease of Installation and Servicing

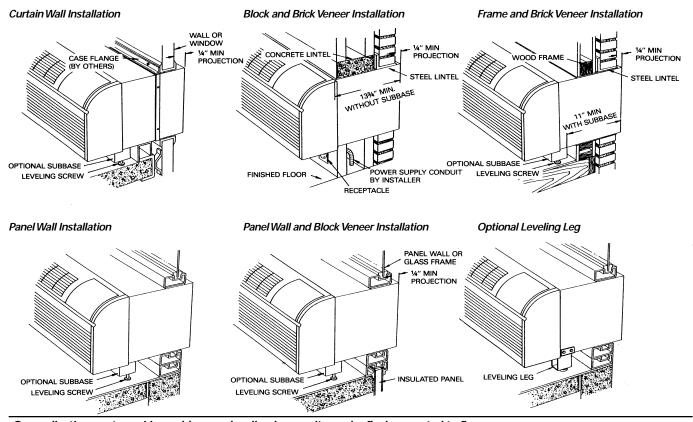
After the sleeve is in place, plug in or directly hard-wire the unit and it is ready to run. This unit has been designed to replace most competitors' units. In fact this unit can fit into most existing sleeves, making replacement of old or inefficient units easy and economical. And of course, the units may be installed flush with the outside wall. The main components are easily serviced; the unit is easy to diagnose or troubleshoot to spot potential problems.



When the filter needs to be cleaned or replaced, the filter access door tilts forward for easy access. For more extensive service, the unit slides out of the sleeve easily for full access to all working components.



Application Considerations

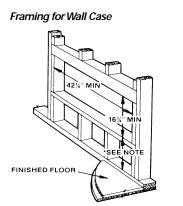


On applications not requiring subbase or leveling legs, unit may be flush mounted to floor.

LINTEL

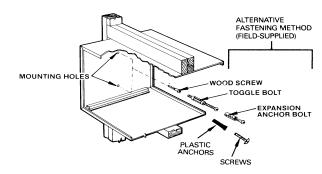
Sleeve Installation Data

WOOD FRAME



Framing With Lintel

Attaching Wall Sleeve to Opening



3¼" minimum with subbase.
 On applications not requiring subbase or leveling legs, unit may be flush mounted to floor.

Model Number Description



MODEL NOMENCLATURE

<u>PT E C 090 1 G * A</u>

Digits 1,2 — Packaged Terminal Air Conditioner

Digit 3 — Product Type

E = Air Conditioner H = Heat Pump

Digit 4 — Development Sequence C = Third Development

Digits 5,6,7 — Unit Cooling Capacity

070 = 7,000 Btu 090 = 9,000 Btu 120 = 12,000 Btu 150 = 15,000 Btu

Digit 8 — Main Power Supply 1 = 208-230/60/1

2 = 265/60/1

Digit 9 — Electric Heating Capacity**

- 0 = No Electric Heat Air Conditioners Only E = 2.5 kWG = 3.5 kW (208-230V) G = 3.7 kW (265V)
- $J = 5.0 \, kW^*$

Digit 10 — Design Sequence

Digit 11— Miscellaneous

- A = Standard
- B = Power Vent
- C = Corrosion Resistant
- D = Condensate Pump
- H = Hydronic Chassis

F = Hydronic with Power Vent and Door

- G = Hydronic with Power Door
- J = Power Door
- K = Condensate Pump with Power Vent
- L = Condensate Pump with Power Door

Notes:

Corrosion resistant, condensate pump, power vent units and all special units require extended ship cycles.
 Only the following units are available from stock and can normally ship within 3 days after release.
 Contact your local Trane representative for current stock availability and information on minimum quantity requirements and shipping schedule for special production units.

Stock Style Models

PTEC0701GCA	
PTEC0901GCA	
PTEC1201GCA	

PTEC1501GCA PTEC1501JCA

PTHC0701GCA PTHC0901GCA PTHC1201GCA PTHC1501GCA PTHC1501JCA

PTEC0902GCA PTHC0902GCA PTEC1202GCA PTHC1202GCA PTEC1502GCA PTHC1502GCA

*Sizes 09, 12 and 15 only. **All heat pump units must have electric coils.



Table PD-1 — Cooling Performance — Air Conditioner with Electric Heat Models

Model No. ^{1&5} Voltage ³ Capacity (Btu) ⁶ Amps Watts EER	208 7000 3.0 600 11.6	PTEC 07 230 7100 2.8 610	265 7100 2.3	208 8900 3.8	PTEC 09 230 9100	265 9100	208	PTEC 12 230	265	208	PTEC 15 230	265
Capacity (Btu) ⁶ Amps Watts	7000 3.0 600	7100 2.8	7100 2.3	8900							230	265
Amps Watts	3.0 600	2.8	2.3		9100	0100	44000					
Watts	600	-	-	2.0		7100	11900	12000	12000	14000	14200	14200
		610		J 3.0	3.7	3.0	5.0	5.0	4.3	6.9	6.9	5.9
	11 4		610	785	805	805	1110	1110	1130	1520	1545	1525
EER	11.0	11.6	11.6	11.3	11.3	11.3	10.7	10.7	10.7	9.2	9.2	9.3
Unit without Electric Heater												
Min. Circuit/Ampacity 2 & 4	4.0	4.0	3.6	5.1	5.1	4.4	6.4	6.4	6.4	8.4	8.4	7.4
cfm (cool, wet coil)												
High	240	245	245	240	245	245	325	315	325	315	325	325
Low	205	220	220	205	220	220	250	220	250	220	250	250
cfm (dry coil)												
High	260	265	265	260	265	265	345	335	345	335	345	345
Low	215	230	230	215	230	230	265	235	265	235	265	265
Ventilated Air, cfm (fan only)	65*	65*	65*	65*	65*	65*	70*	70*	70*	70*	70*	70*
Dehumidification (pints/hr.)	1.6	1.6	1.6	2.6	2.6	2.6	3.5	3.5	3.5	4.4	4.4	4.4
Net wt. (approximate lbs.)	90	90	90	95	95	95	105	105	105	110	110	110
Shipping wt. (approximate lbs.)	105	105	105	110	110	110	120	120	120	125	125	125

95 cfm with optional power vent kit. Actual vent cfm performance will vary due to application and installation conditions

Table PD-2 — Cooling Performance —Heat Pump with Electric Heat Models

ModelType						Heat F	Pumps					
Model No. ^{1&5}		PTHC 07			PTHC 09			PTHC 12			PTHC 15	
Voltage ³	208	230	265	208	230	265	208	230	265	208	230	265
Capacity(Btu)6	7000	7100	7100	8800	9000	9000	11800	12000	12000	13800	14000	14000
Amps	3.0	2.8	2.3	3.8	3.5	3.0	5.0	4.6	4.3	6.9	6.3	5.9
Watts	610	615	615	785	805	805	1110	1120	1120	1485	1505	1505
EER	11.5	11.5	11.5	11.2	11.2	11.2	10.7	10.7	10.7	9.3	9.3	9.3
Unit without Electric Heater												
Min Circuit/Ampacity 2 & 4	4.0	4.0	3.6	5.1	5.1	4.4	7.3	7.3	5.7	8.4	8.4	7.4
cfm (cool, wet coil)												
High Low	240 205	245 220	245 220	240 205	245 220	245 220	315 220	325 250	325 250	315 220	325 250	325 250
cfm (dry coil)												
High Low	260 215	265 230	265 230	260 215	265 230	265 230	335 235	345 265	345 265	335 235	345 265	345 265
Ventilated Air, cfm (fan only)	65*	65*	65*	65*	65*	65*	70*	70*	70*	70*	70*	70*
Dehumidification (pints/hr.)	1.6	1.6	1.6	2.6	2.6	2.6	3.5	3.5	3.5	4.4	4.4	4.4
Net wt. (approximate lbs.)	95	95	95	100	100	100	110	110	110	115	115	115
Shipping wt. (approximate lbs.)	110	110	110	115	115	115	125	125	125	130	130	130

*95 cfm with optional power vent kit. Actual vent cfm performance will vary due to application and installation conditions.

Notes:

1. All 265 volt models must use Trane's subbase or Trane's hard-wire junction box kit.

Minimum branch circuit ampacity ratings conform to the National Electric Code. However, local codes should apply.
 Minimum voltage on 208/230 volt models is 197 volts; maximum is 253 volts. Minimum voltage on 265 volt models is 238.5 volts; maximum is 291.5 volts.

Overcurrent protection for all units without electric heaters is 15 amps. Overcurrent protection on 265 volt models must be cartridge-style time delay fuses (included and factory installed on Trane chassis). Note: All heat pump units must have electric coils.
 Minimum operating ambient = 45°F.

6. Certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on ARI standard 310/380.

EER — Energy Efficiency Ratio per American Refrigeration Institute (ARI) Test Procedures. COP — Coefficient of Performance per ARI Test Procedures.



Table PD-3 — Heat Pump Reverse Cycle Heating Capacity (Btu)

Model No.1			PTHC 07			PTHC 09			PTHC 12			PTHC 15	
Voltage ³		208	230	265	208	230	265	208	230	265	208	230	265
Amps		3.0	2.6	2.2	3.6	3.2	2.6	5.1	4.5	3.9	6.3	5.7	5.4
Watts		550	570	570	730	740	740	1000	1020	1020	1380	1390	1390
Btu ²		6200	6400	6400	8000	8100	8100	10600	10800	10800	13500	13300	13300
COP ²		3.3	3.3	3.3	3.2	3.2	3.2	3.1	3.1	3.1	2.8	2.8	2.8
cfm (dry)		230	235	235	230	235	235	290	310	310	335	345	345
Heating ² Btu °F													
Outdoor Ambient	62	8200	8400	8400	10200	10300	10300	13000	13200	13200	16300	16400	16400
	57	7600	7800	7800	9600	9700	9700	12200	12400	12400	15300	15400	15400
	52	6900	7100	7100	8900	9000	9000	11400	11600	11600	14200	14300	14300
	47	6200	6400	6400	8000	8100	8100	10600	10800	10800	13200	13300	13300
Rating Point	(COP)	3.3	3.3	3.3	3.2	3.2	3.2	3.1	3.1	3.1	2.8	2.8	2.8
2	42	5500	5700	5700	7200	7300	7300	9800	10000	10000	12200	12300	12300
	37	4900	5100	5100	6400	6500	6500	9000	9200	9200	11200	11300	11300
	32	4300	4500	4500	5600	5700	5700	8200	8400	8400	10100	10200	10200
Watts	62	730	745	745	935	940	940	1230	1245	1245	1705	1715	1715
Outdoor Ambient	57	675	690	690	880	890	890	1150	1170	1170	1600	1610	1610
	52	610	630	630	815	825	825	1075	1095	1095	1485	1495	1495
	47	550	570	570	730	740	740	1000	1020	1020	1380	1390	1390
	42	490	505	505	660	670	670	925	945	945	1275	1285	1285
	37	435	450	450	585	595	595	850	870	870	1170	1180	1180
	32	380	400	400	510	520	520	775	795	795	1055	1065	1065

Notes:
 All 265 volt models must use Trane's subbase or Trane's hard-wire junction box kit.
 Heating capacity and efficiency is based on unit operation without condensate pump. Unit automatically switches to electric heat at 25°F outdoor coil temperature. Depending upon relative humidity conditions, this will occur at approximately 35 degrees outdoor ambient temperature.



Table PD-4 — PTEC Air Conditioner — 208V

	WBT Ent	DBT Ent						utdoor Tem	perature (°F)					
Vominal	Indoor	Indoor		85			95			105			115	
Unit Size	Coil (°F)	Coil (°F)	Total Btu	Sen Btu	% SH	Total Btu	Sen Btu	% SH	Total Btu	Sen Btu	% SH	Total Btu	Sen Btu	% SH
	. /	75	6680	5695	85	6380	5545	87	6030	5665	94	5710	5530	97
	61	80	6930	6930	100	6665	6665	100	6270	6270	100	5980	5980	100
		85	7205	7205	100	7030	7030	100	6745	6745	100	6320	6320	100
-		75	7440	4005	54	7155	4140	58	6680	4150	62	6290	4000	64
07	67	80	7345	5385	73	*7000	5250	75	6660	5295	80	6270	5175	83
		85	7390	6570	89	7105	6445	91	6690	6270	94	6330	6330	100
-		75	8335	2835	34	7885	2800	36	7485	2665	36	7070	2520	36
	73	80	8245	3980	48	7875	3850	49	7415	3845	52	7010	3710	53
		85	8150	5285	65	7750	4995	64	7345	4845	66	6940	4705	68
		75	8385	6285	75	7940	6065	76	7460	5830	78	6960	5600	80
	61	80	8335	7390	89	7905	7165	91	7435	6930	93	7050	7050	100
		85	8480	8480	100	8130	8130	100	7765	7765	100	7345	7345	100
-		75	9510	5010	53	9075	4810	53	8465	4610	54	7900	4510	57
09	9 67	80	9410	6240	66	*8900	5820	65	8355	5610	67	7795	5335	68
		85	9255	7295	79	8825	7165	81	8210	6890	84	7680	6470	84
-		75	10710	3705	35	10135	3490	34	9555	3280	34	8935	3060	34
	73	80	10585	4790	45	10020	4580	46	9420	4365	46	8795	4145	47
		85	10450	5875	56	9880	5665	57	9270	5445	59	8640	5230	61
		75	11265	8715	77	10610	8410	79	9875	8070	82	9000	7675	85
	61	80	11220	10210	91	10575	9890	94	9815	9525	97	9110	9110	100
		85	11505	11505	100	10965	10965	100	10300	10300	100	9605	9605	100
-		75	12770	6910	54	12205	6670	55	11320	6305	56	10440	5950	57
12	67	80	12630	8330	66	* 11900	8025	67	11115	7705	69	10200	7370	72
		85	12425	9815	79	11805	9560	81	10905	9215	85	9980	8875	89
-		75	14435	5060	35	13645	4765	35	12840	4470	35	11925	4145	35
	73	80	14260	6520	46	13460	6230	46	12640	5930	47	11630	5575	48
		85	14070	7985	57	13290	7700	58	12370	7400	60	11350	7020	62
		75	13245	10205	77	12490	9830	79	11570	9405	81	10610	8940	84
	61	80	13140	11930	91	12345	11515	93	11395	11045	97	10760	10760	100
		85	13465	13465	100	12775	12775	100	11965	11965	100	11325	11325	100
-		75	15035	8120	54	14365	7835	55	13280	7345	55	12200	6875	56
15	67	80	14845	9745	66	*14000	9375	67	13020	8975	69	11990	8575	72
		85	14575	11455	79	13785	11125	81	12670	10680	84	11790	10370	88
-		75	16875	5915	35	16120	5625	35	15130	5260	35	14010	4790	34
	73	80	16780	7655	46	15870	7315	46	14835	6905	47	13635	6445	47
		85	16535	9330	56	15595	8970	58	14530	8610	59	13385	8225	61



	WBT Ent	DBT Ent					0	utdoorTem	perature (°F)					
Nominal	Indoor	Indoor		85			95			105			115	
Unit	Coil	Coil	Total	Sen	%	Total	Sen	%	Total	Sen	%	Total	Sen	%
Size	(°F)	(°F)	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH
			6780	5795	85	6480	5645	87	6130	5765	94	5810	5630	97
	61	80	7030	7030	100	6765	6765	100	6370	6370	100	6080	6080	100
-		85	7305	7305	100	7130	7130	100	6845	6845	100	6420	6420	100
		75	7540	4105	54	7255	4240	58	6780	4250	63	6390	4100	64
07	67	80	7445	5485	74	*7100	5350	75	6760	5395	80	6370	5275	83
_		85	7490	6670	89	7205	6545	91	6790	6370	94	6430	6430	100
		75	8435	2935	35	7985	2900	36	7585	2765	36	7170	2620	37
	73	80	8345	4080	49	7975	3950	50	7515	3945	52	7110	3810	54
		85	8250	5385	65	7850	5095	65	7445	4945	66	7040	4805	68
		75	8585	6485	76	8140	6265	77	7660	6030	79	7160	5800	81
	61	80	8535	7590	89	8105	7365	91	7635	7130	93	7250	7250	100
		85	8680	8680	100	8330	8330	100	7965	7965	100	7545	7545	100
-		75	9710	5210	54	9275	5010	54	8665	4810	56	8100	4710	58
09	67	80	9610	6440	67	*9100	6020	66	8555	5810	68	7995	5535	69
		85	9455	7495	79	9025	7365	82	8410	7090	84	7880	6670	85
-		75	10910	3905	36	10335	3690	36	9755	3480	36	9135	3260	36
	73	80	10785	4990	46	10220	4780	47	9620	4565	47	8995	4345	48
		85	10650	6075	57	10080	5865	58	9470	5645	60	8840	5430	61
		75	11365	8815	78	10710	8510	79	9975	8170	82	9100	7775	85
	61	80	11320	10310	91	10675	9990	94	9915	9625	97	9210	9210	100
	01	85	11605	11605	100	11065	11065	100	10400	10400	100	9705	9705	100
-		75	12870	7010	54	12305	6770	55	11420	6405	56	10540	6050	57
12	67	80	12730	8430	66	*12000	8125	68	11420	7805	70	10340	7470	73
12	07	85	12525	9915	79	11905	9660	81	11215	9315	85	10080	8975	89
-		75	14535	5160	36	13745	4865	35	12940	4570	35	12025	4245	35
	73	80	14355	6620	46	13745	6330	47	12940	6030	47	12025	5675	48
	75	85	14300	8085	57	13390	7800	58	12/40	7500	60	11/30	7120	62
		75	13445	10405	77	12690	10030	79	11770	9605	80	10810	9140	85
	61	80	13445	12130	91	12690	11715	93	11595	11245	97	10810	10960	100
	01						-							
-		85	13665	13665	100	12975	12975	100	12165	12165	100	11525	11525	100
45	<i>(</i> -		15235	8320	55	14565	8035	55	13480	7545	56	12400	7075	57
15	67	80	15045	9945	66	*14200	9575	67	13220	9175	69	12190	8775	72
-		85	14775	11655	79	13985	11325	81	12870	10880	85	11990	10570	88
		75	17075	6115	36	16320	5825	36	15330	5460	36	14210	4990	35
	73	80	16980	7855	46	16070	7515	47	15035	7105	47	13835	6645	48
		85	16735	9530	57	15795 temperature.	9170	58	14730	8810	60	13585	8425	62

Table PD-5 — PTEC Air Conditioner — 230/265V



Table PD-6 — PTHC Heat Pump — 208V

	WBT Ent							utdoor Tem	perature (°F)					
Iominal	Indoor	Indoor		85			95			105			115	
Unit	Coil	Coil	Total	Sen	%	Total	Sen	%	Total	Sen	%	Total	Sen	%
Size	(°F)	(°F)	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH
		75	6680	5695	85	6380	5545	87	6030	5665	94	5710	5530	97
	61	80	6930	6930	100	6665	6665	100	6270	6270	100	5980	5980	100
-		85	7205	7205	100	7030	7030	100	6745	6745	100	6320	6320	100
		75	7440	4005	54	7155	4140	58	6680	4150	62	6290	4000	64
07	67	80	7345	5385	73	*7000	5250	75	6660	5295	80	6270	5175	83
		85	7390	6570	89	7105	6445	91	6690	6270	94	6330	6330	100
		75	8335	2835	34	7885	2800	36	7485	2665	36	7070	2520	36
	73	80	8245	3980	48	7875	3850	49	7415	3845	52	7010	3710	53
		85	8150	5285	65	7750	4995	64	7345	4845	66	6940	4705	68
		75	8290	6120	74	7840	5900	75	7350	5660	77	6855	5420	79
	61	80	8225	7175	87	7785	6945	89	7315	6705	92	6810	6790	100
		85	8285	8285	100	7920	7920	100	7525	7525	100	7105	7105	100
		75	9420	4905	52	8960	4775	53	8360	4500	54	7785	4400	57
09		80	9305	5890	63	*8800	5660	64	8250	5485	66	7675	5170	67
		85	9145	7085	77	8710	6945	80	8095	6670	82	7520	6400	85
-		75	10610	3675	35	10050	3465	34	9450	3245	34	8835	3020	34
	73	80	10480	4705	45	9920	4495	45	9315	4275	46	8690	4050	47
		85	10345	5730	55	9775	5520	56	9165	5300	58	8535	5075	59
		75	11165	8615	77	10510	8310	79	9775	7970	82	8900	7575	85
	61	80	11120	10110	91	10475	9790	93	9715	9425	97	9010	9010	100
		85	11405	11405	100	10865	10865	100	10200	10200	100	9505	9505	100
-		75	12670	6810	54	12105	6570	54	11220	6205	55	10340	5850	57
12	67	80	12530	8230	66	*11800	7925	67	11015	7605	69	10100	7270	72
		85	12325	9715	79	11705	9460	81	10805	9115	84	9880	8775	89
-		75	14335	4960	35	13545	4665	34	12740	4370	34	11825	4045	34
	73	80	14160	6420	45	13360	6130	46	12540	5830	46	11530	5475	47
		85	13970	7885	56	13190	7600	58	12270	7300	59	11250	6920	62
		75	13055	10055	77	12310	9690	79	11405	9270	81	10460	8815	84
	61	80	12955	11755	91	12170	11350	93	11230	10885	97	10605	10605	100
		85	13275	13275	100	12590	12590	100	11795	11795	100	11165	11165	100
-		75	14820	8000	54	14160	7720	55	13090	7240	55	12025	6775	56
15	67	80	14635	9605	66	*13800	9240	67	12830	8845	69	11820	8450	71
		85	14370	11290	79	13585	10970	81	12485	10530	84	11620	10220	88
-		75	16635	5825	35	15890	5540	35	14915	5185	35	13810	4720	34
	73	80	16540	7545	46	15645	7210	46	14625	6805	47	13440	6355	47
		85	16300	9195	56	15370	8845	58	14320	8490	59	13195	8105	61



	WBT Ent	DBT Ent					0	utdoorTe	mperature (°F)						
Nominal	Indoor	Indoor		85			95			105			115		
Unit	Coil	Coil	Total	Sen	%	Total	Sen	%	Total	Sen	%	Total	Sen	%	
Size	(°F)	(°F)	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH	Btu	Btu	SH	
		75	6780	5795	85	6480	5645	87	6130	5765	94	5810	5630	97	
	61	80	7030	7030	100	6765	6765	100	6370	6370	100	6080	6080	100	
		85	7305	7305	100	7130	7130	100	6845	6845	100	6420	6420	100	
		75	7540	4105	54	7255	4240	58	6780	4250	63	6390	4100	64	
07	67	80	7445	5485	74	*7100	5350	75	6760	5395	80	6370	5275	83	
		85	7490	6670	89	7205	6545	91	6790	6370	94	6430	6430	100	
		75	8435	2935	35	7985	2900	36	7585	2765	36	7170	2620	37	
	73	80	8345	4080	49	7975	3950	50	7515	3945	52	7110	3810	54	
		85	8250	5385	65	7850	5095	65	7445	4945	66	7040	4805	68	
		75	8490	6320	74	8040	6100	76	7550	5860	78	7055	5620	80	
	61	80	8425	7375	88	7985	7145	89	7515	6905	92	7010	6990	100	
		85	8485	8485	100	8120	8120	100	7725	7725	100	7305	7305	100	
		75	9620	5105	53	9160	4975	54	8560	4700	55	7985	4600	58	
09	67	80	9505	6090	64	*9000	5860	65	8450	5685	67	7875	5370	68	
		85	9345	7285	78	8910	7145	80	8295	6870	83	7720	6600	85	
		75	10810	3875	36	10250	3665	36	9650	3445	36	9035	3220	36	
	73	80	10680	4905	46	10120	4695	46	9515	4475	47	8890	4250	48	
		85	10545	5930	56	9975	5720	57	9365	5500	59	8735	5275	60	
		75	11365	8815	78	10710	8510	79	9975	8170	82	9100	7775	85	
	61	80	11320	10310	91	10675	9990	94	9915	9625	97	9210	9210	100	
		85	11605	11605	100	11065	11065	100	10400	10400	100	9705	9705	100	
		75	12870	7010	54	12305	6770	55	11420	6405	56	10540	6050	57	
12	67	80	12730	8430	66	*12000	8125	68	11215	7805	70	10300	7470	73	
		85	12525	9915	79	11905	9660	81	11005	9315	85	10080	8975	89	
-		75	14535	5160	36	13745	4865	35	12940	4570	35	12025	4245	35	
	73	80	14360	6620	46	13560	6330	47	12740	6030	47	11730	5675	48	
		85	14170	8085	57	13390	7800	58	12470	7500	60	11450	7120	62	
		75	13255	10255	77	12510	9890	79	11605	9470	82	10660	9015	85	
	61	80	13155	11955	91	12370	11550	93	11430	11085	97	10805	10805	100	
	0.	85	13475	13475	100	12790	12790	100	11995	11995	100	11365	11365	100	
-		75	15020	8200	55	14360	7920	55	13290	7440	56	12225	6975	57	
15	67	80	14835	9805	66	*14000	9440	67	13030	9045	69	12020	8650	72	
10	07	85	14570	11490	79	13785	11170	81	12685	10730	85	11820	10420	88	
		75	14370	6025	36	16090	5740	36	15115	5385	36	14010	4920	35	
	73	80	16740	7745	46	15845	7410	47	14825	7005	47	13640	6555	48	
	75	85	16500	9395	57	15570	9045	58	14825	8690	60	13040	8305	62	
*Those car	acitios aro k					temperature, 9			14520	0070	00	13373	0303	02	

Table PD-7 — PTHC Heat Pump — 230/265V



Table PD-8 — Heating Capacity — Water

						Heatii	ng Capacity (Btu) Hot W	/ater					
	Press	ure		7000 & 900	00 Btu Unit	S		12000 E	Btu Units			15000 E	Btu Units	
	Dro (psi	<u>ģ)</u>		EWT		EWT	200°F			EWT	200°F			EWT
		2-Way	Fan S	speed	Fan S	speed	Fan S	peed	Fan S	Speed	Fan Sp	peed	Fan S	speed
gpm	Coil	Valve	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo	Hi	Lo
1.00	0.93	0.19	14910	13388	12639	11186	16945	14387	14257	12152	17858	15534	15049	13312
1.13	1.03	0.24	15216	13706	12898	11452	17360	14689	14607	12407	18276	15955	15401	13672
1.25	1.14	0.30	15500	13997	13139	11696	17745	14968	14930	12642	18666	16338	15729	14001
1.38	1.26	0.36	15762	14262	13361	11917	18099	15222	15228	12858	19025	16684	16032	14297
1.50	1.40	0.43	16003	14501	13565	12117	18423	15454	15501	13053	19356	16991	16311	14561
1.63	1.55	0.50	*16222	14714	13751	12295	18717	15661	15748	13228	19658	17261	16565	14792
1.75	1.71	0.58	16420	14900	13919	12450	18980	15845	15969	13384	19930	17494	16794	14991
1.88	1.89	0.66	16596	15061	14068	12584	19212	16006	16165	13519	20173	17689	16999	15158
2.00	2.10	0.76	16751	15195	14199	12696	*19268	16142	16212	13635	20387	17846	17179	15293
2.13	2.32	0.85	16884	15302	14312	12786	19586	16255	16479	13730	*20445	17965	17229	15395
2.25	2.57	0.96	16995	15384	14407	12854	19727	16345	16598	13806	20727	18047	17466	15465
2.38	2.84	1.07	17085	15439	14483	12900	19838	16410	16691	13861	20853	18091	17572	15503
2.50	3.14	1.18	17154	15467	14541	12924	19919	16452	16759	13897	20950	18097	17654	15508
2.63	3.48	1.30	17201	15470	14581	12926	19968	16471	16801	13912	21018	18065	17711	15481
2.75	3.85	1.43	17226	15505	14603	12956	19988	16580	16817	14004	21056	18140	17744	15545

*Based on ARI Rating Conditions of 70°F Entering Air Temp., 200°F Entering Water Temp and 180°F Leaving Water Temp. Max Water Temperature 200°F Max. Water Pressure - 200 psig.

Table PD-9 — Heating Capacity — Steam

	7,000 & 9,00	0 Btu Units	12,000 B	tu Units	15,000 E	3tu Units	
Steam	Fan S	peed	Fan S	peed	Fan S	Speed	
PSIG	High	Low	High	Low	High	Low	
2	20,236	17,816	21,694	18,306	23,709	—	
3	20.686	18.253	22,100	19.003	25.676	21.099	
4	20,821	18,544	22,822	19,313	26,325	23,678	



Electric Power

Table EP-1 — Electric Heat Capacity and Electrical Data (For PTEC and PTHC Models)***

	Electric		N	ominal Heatin	ıg	_	[Vinimum Circu	it Overcurrent	
	Heater	No. Of				Total	Total			Power
Voltage ²	Size (kW)	Stages	Btu 208	Btu 230	Btu 265	Watts ⁴	Amps	Ampacity ¹	Protection ³	Cord
208/230	2.0/2.5	1	6,800	8,500	—	2,140/2,650	10.2/11.5	14.2	15	6-15 P
208/230	2.9/3.5	1	9,900	12,000	—	3,040/3,650	14.5/15.8	19.6	20	6-20 P
208/230	4.1/5.0	**	14,000	17,100	—	4,240/5,150	20.3/22.3	27.7	30	6-30 P
265	2.5	1	—	—	8,500	2,650	10	12.4	15	7-20 P
265	3.7	1	—	_	12,600	3,850	14.6	18.1	20	7-20 P
265	5.0	**	—	_	17,100	5,150	19.5	24.2	25	7-30 P

Notes:

Notes:
 Minimum branch circuit ampacity ratings conform to the National Electric Code. However, local codes should apply.
 Minimum voltage on 208/230 volt models is 197 volts; maximum is 253 volts. Minimum voltage on 265 volt models is 238.5 volts; maximum is 291.5 volts.
 Overcurrent protection for all units without electric heaters is 15 amps. Overcurrent protection on 265 volt models must be cartridge-style time delay fuses (included and factory installed on Trane chassis).
 To the the for 200 word endowed and to write for all units without electric heaters is 12 amps.

A Total watts for 7,000 and 9,000 Btu models; add 40 watts for size 12 and 70 watts for size 15.
 **PTHC07, 09 and 12 are two-stage; PTHC15 is one-stage.
 *** Note: All heat pumps must have electric coils.

Table EP-2 — Power Receptacle Configurations

Voltage Unit Supplied Plug	208/230			265	
Amps	15	20	30	20	30
NEMA Rating	6-15P	6-20P	6-30P	7-20P	7-30P
Receptacle					
Amps	20	20	30	20	30
NEMA Rating	6-20R	6-20R	6-30R	7-20R	7-30R

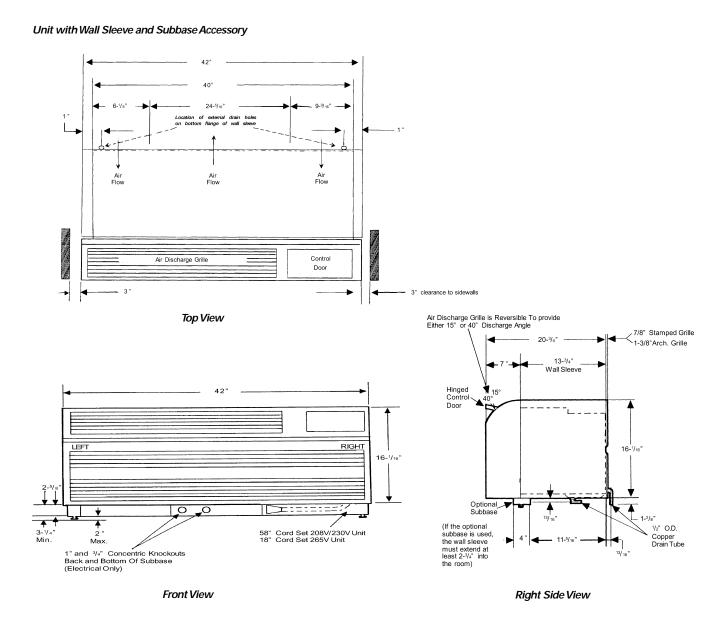
NLEWA Reading
 Notes:

 All wiring, including receptacles, must be made in accordance with local electrical codes and regulations.
 NEMA 6-15 and 6-20 plugs fit in NEMA 6-20 receptacles.
 Receptacles shown for 208/203 applications are factory supplied with subbase, per local codes for wall mounted receptacles use or the corresponding NEMA receptacles.

 Receptacles shown for 265 volt applications are factory supplied with subbase. Codes do not allow 265 volt units to mate with wall mounted receptacles. They may however be hard-wired per Local Codes.



Dimension and Weights



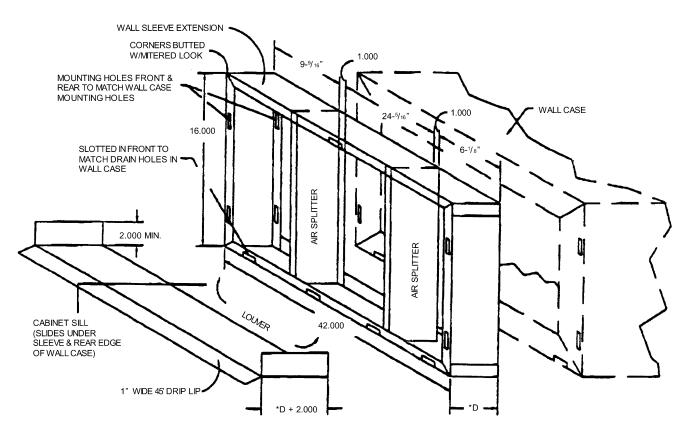
Notes:

- Allow a minimum of 3'/4" clearance between cabinet and floor to permit installation of options subbase.
 Allow minimum of 3" clearance between cabinet and side walls to permit front panel removal.
 Drain tube can be mounted either right side, left side or bottom of sleeve. Bottom drain to be located by customer. Drain kit shipped separate.
 Unit provides 20 percent outside air.
- Detachable cord ships attached to unit. Cord can be removed for direct attachment of building wiring or wiring from junction box kit. 5.
- For U.S. approval 265 volt units and units with duct packages must have permanent wiring connection. Permanent wiring requirement can be met either by supplying afull length subbase for concealed cord connection or by direct wiring with junction box kit. 6.
- 7. Control door provided on standard unit for access to controls.



Dimension and Weights

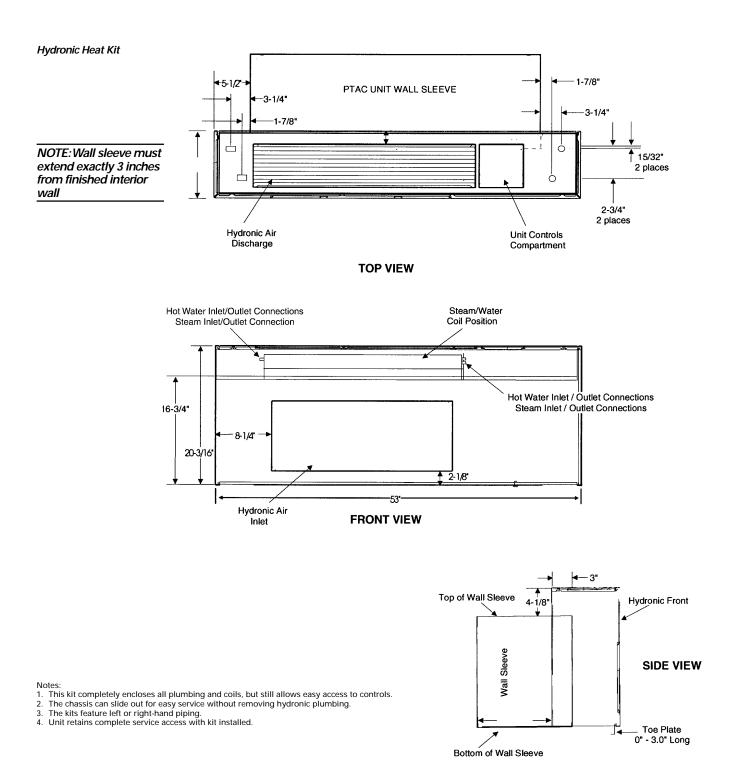
Field Supplied Extension



*D = REQUIRED DEPTH. PLEASE SPECIFY.



Dimension and Weights

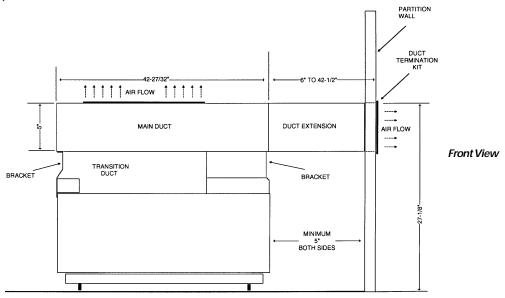


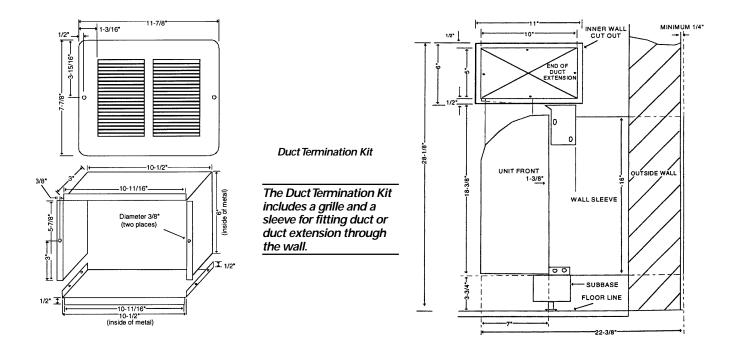


Dimension and Weights

Duct Package

When two adjacent rooms need to be conditioned, a main duct kit and a duct extension kit are possible options. These kits transfer air from one room to another, yet allow different air flows for the rooms (airflow distribution can be adjusted from 65/45 to 80/20.)







Mechanical Specifications

Unit Chassis

Each unit will be slide-out design shipped with room cabinet front installed. Unit chassis will have the ability to be installed with zero reversing clearance from finished floor. An electrical power cord will be included with chassis and installed by the manufacturer to assure proper NEMA 6 or 7 configuration and UL approved length. Unit will be tested for conformance to ASTME water infiltration specification ASTME 331-86 which assures no water infiltration when tested at eight inches of rain per hour at 63 mph wind for 15 minutes.

Room Cabinet/Front Panel

The room cabinet/front panel will have sloped discharge so that obstructions are not placed on unit. The discharge conditioned air can be directed into the room at an angle of 15 to 40 degrees from the vertical position. The discharge grille will be a polycarbonate material to resist bending, cracking, rusting and corrosion. The front panel will be able to be field secured to chassis to inhibit tampering. Cabinet depth will be seveninch to minimize unit's impact on room space.

Filter

The filter will be accessible without removing room front. Filter material will be nylon mesh, permanent cleanable.

Condenser/Evaporator Fans

One direct drive with a permanent split capacitor two-speed motor. The condenser fan will be propeller type and the indoor evaporator fan will be a centrifugal blower type.

Cooling Condensate Removal

High humidity conditions may call for condensate removal system. The outdoor fan diffuses water directly on to the outdoor condenser coil for rapid evaporation and increased cooling efficiency.

Compressor

The compressor will be hermetically sealed, internally isolated, rotary-type and permanently mounted on rubber isolators. No removal or adjustment of compressor hold down bolts will be required during installation.

Coils

Coils will have rifled copper tubing expanded into rippled-edge louvered aluminum fins.

Heat Pumps

Heat pumps will include a changeover thermostat that senses an outside coil switch-over temperature of 25°F, lock-open refrigerant valve during heat pump operation, temperature-activated defrost drain and automatic emergency heat operation to override the heat pump's changeover thermostat and bring on electric resistance heaters in the event of a sealed system failure. Unit will not operate compressor and electric heaters simultaneously.

Outside Air Damper/Vent Control

The vent control will allow 65 to 70 cfm of fresh air to be drawn into the room. This fresh air can provide ventilation when the blower is operating. To obtain access to the vent control, remove the cabinet front. The vent control lever is on the left side of the chassis. The control lever must be rotated to either open or close the damper. Actual vent cfm performance will vary due to application and installation conditions.

Filtered Outdoor Air Intake

The outdoor air intake will be filtered with a talc-filled polypropylene filter that will reduce dust from coming into the room.

Paint System Corrosion Protection

All units are built with hot-dipped galvanized steel. Metal parts are then run through a six-stage zinc phosphate cleaner/pretreatment, painted with a cathodic electroplating of an epoxy resin paint and baked for 20 minutes at 350°F. All exterior parts that are exposed to sunlight get an additional coating of polyester and are baked for 20 minutes at 350°F for additional protection from the fading effects of ultraviolet rays. This paint process makes the unit highly resistant to normal rust, corrosion and fading. It is the best paint process in the industry today.

Corrosion-Resistant Chassis (Standard Option)

The condenser coil is painted using cathodic electrocoat. The bottom ¼ of the compressor is coated with a water borne resin. The outdoor side of interior parts are top coated, in addition, the base pan is cathodic electrocoated.



Mechanical Specifications

Unit Controls

The unit controls will be full solid-state and accessible from the top. The standard unit mounted controls will include two rotary (switch) knobs controlling unit operational and temperature mode. The unit operational switch includes:

- · Off position.
- Fan only unit operates on low fan speed.
- Low cool unit operates on low fan speed to circulate air for cooling.
- High cool unit operates on high fan speed to circulate air for cooling.
- Low heat unit operates on low fan speed to circulate air for heating.
- High heat unit operates on high fan speed to circulate air for heating.

Temperature Switch

The temperature switch is controlled by turning the knob clockwise for a cooler room temperature; turning it counterclockwise will provide a warmer room temperature. Adjusting the thermostat to the mid setting (vertical) will set the room temperature at approximately 75°F.

Remote Control Operation

To operate units with remote thermostats, the Standard/Remote unit mounted switch must be set to the remote position. When in the remote position, the unit will only respond to the wall-mounted thermostat inputs. Unit will operate on low or high fan.

Remote Thermostat/Sensor Terminals

These terminals provide control inputs for a remote thermostat or sensor.

Front Desk Control Terminals

These terminals provide control inputs for a front desk switch.

Load Shedding Terminals

The LS/IN terminals will provide a connection for a switch that can be added to close the circuit and lockout the compressor and electric heat when the power company or energy management system is trying to reduce its load for a specific time.

On Board Diagnostics

An LED light will flash a code displaying 8 conditions: Control OK, 24 Vac Fuse Blown, ICT (Indoor CoilTemperature) Probe Failure, Mode Switch Failure, Potentiometer Failure, Bad Thermostat Input Failure, Bad Communications in Slave Mode, and IAT (Indoor Air Temperature) Failure. A spare 500 MA fuse has been provided on the board.

Temperature Limiter

The temperature limiting feature can reduce energy costs by controlling the maximum temperature in heating and the minimum temperature in cooling.

Room Freeze Protection

Freeze protection is built into all units and will activate the electric resistance heater (when it senses a temperature of 40°F room temperature) to maintain an above freezing temperature at the sensor.

Fan Cycle Switch

The fan cycle switch sets the operational mode of the fan. In the ON position, the fan will run continuously whenever the unit is in the heat or cool position. In the AUTO position, the fan will cycle on and off with the compressor or electric heater when the unit is in the cool or heat mode.

Automatic Emergency Heat Staged Thermostat

On every unit mounted control heat pump, electric heat engages automatically if the sealed system or compressor fails.

Compressor Time Delay

The compressor will not try to restart once running or until approximately three minutes have elapsed after shutdown.



Options

Options

Wall Sleeves

Wall sleeves shall be industry standard size of 13%" D x 42" W x $16^{1/16}$ " H.

Extended Wall Sleeves

Extended wall sleeves shall be industry standard size of $18"D \times 42"W \times 16^{1/16"}H$ or $24" D \times 42"W \times 16^{1/16"}H$.

Drain Kit

Drain kit attaches to the bottom of the wall sleeve for directional controlled internal or external disposal of condensate and defrost water.

Outdoor Grilles

Outdoor grilles are available as architectural extruded, anodized aluminum and four standard colors. Special colors are also available or standard stamped aluminum.

Condenser Baffle Kit

The condenser baffle kit is required when replacing an existing packaged terminal unit and/or the original outdoor grille is not made byTrane. These baffles are required to deflect discharge air away from the inlet, preventing recirculation of hot condenser air.

Leveling Legs Kit

Attaches easily to the wall sleeve for support and accurate unit leveling on units without subbases. Adjustable from $2^{58''}$ to 5 ¼".

Subbases

Subbases are prewired to facilitate field electrical connections and include a NEMA 6 or 7 configuration electrical receptacle. The subbases include two leveling screws for sleeve support and accurate unit leveling during installation. Subbases include locations for field installation of physical disconnect switches, cartridge-style fuse holders and circuit breakers. Side skirts will be included with subbases.

Power Disconnect Switch Kit

A power disconnect switch must be installed in hard-wire junction or subbase for use as a physical disconnect where required by local codes.

Circuit Breaker Kit

A circuit breaker kit is installed in the subbase to provide overcurrent protection for proper 208/230 volt amperage. Can also be used as a physical disconnect where local codes permit 208/230 volts.

Fuse Holder Kit

Fuses are included in 265 volt units. For 208/230 volts, these kits allow fusing in 15, 20 and 30 amps. Fuses are not included. Fuse holders must be installed in the unit or subbase.

Hard-Wire Junction Box Kit

Provides for easy electrical connection when permanent wiring is required. Hard-wire kit must be used on 265 volt units if subbases are not used.

Duct Transition and Extended Kit

A main duct transition piece will attach to the discharge of the unit and a duct extension will be attached to the transition piece to carry up to 40 percent of the conditioned air to the adjoining room.

Powered Outside Vent and Damper Kit

An optional power vent kit can be installed to increase cfm to 95. The power damper will automatically open when the unit is operating and close when not powered. Actual vent cfm performance will vary due to application and installation conditions.

Hydronic Heat Kit

The hydronic heat kit is a field-installed package that can attach to air conditioners to provide central system hot water or steam heat capability on top of units. The kit includes left or right-hand piping. The units retain complete service access with kit installed.

Control Valves

24 volt water valves are available in either two-way or three-way for 208/230 volt units and 265 volt units. 24 volt steam valves are also available for 208/230 and 265 volt units.

Remote/WallThermostats

Manual changeover thermostat

One-stage heat, One-stage cool and Off Switch.

Automatic changeover thermostat with Two-stage Heat and One-stage Cool and Off Switch.

Two-stage Heat (heat pump only) First stage brings on electric coil when room temperature is more than 3.8°F cooler than thermostat setting; then electric heat will turn off and heat pump cycles on. Also one-stage Cool with Manual Changeover.

Two-stage Heat and One-stage Cool with Manual Changeover and Programmable.

Remote Temperature Sensor

This temperature sensor overrides standard unit mounted sensor to allow temperature sensing on internal wall for more accurate temperature control.

Condensate Removal Pump —Heat Pump Only

The internal condensate pump serves as an effective means for disposing of condensate generated during heat pump operation by transferring it to the indoor coil. The warm coil surface and the warm room air help in evaporation of the condensate while adding humidity to the room. As with any equipment of this type, the addition of this kit will decrease the sensible heating capacity of the unit. This kit is not intended for use in seacoast or corrosive environments.

Note: Under extreme high humidity conditions, the internal condensate pump may not be able to dispose of all the condensate produced, and condensate would then drip from the outside of the wall sleeve. If this condensation is unacceptable, then a drain system (including factory approved drain kit for the wall sleeve) should be installed.

Control Cover Key Lock Kit

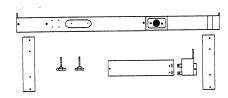
Allows the owner to lock the control panel access to prevent unauthorized operation.



Options

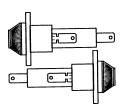
Subbase Kit

The fully skirted subbase conceals wiring while providing strong support. A plug-in receptacle and field wiring access expedites installation. Electrical accessories such as fuse holders, circuit breakers and disconnect switches meet N.E.C. requirements.



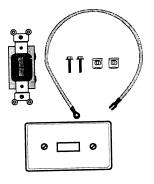
Fuse Holder Kit

Cartridge-style fuses can be installed in the fuse holder for use in the subbase or chassis. It is available in 15, 20 and 30 amp and included on the 265 volt unit.



Power Disconnect Switch

The power disconnect switch can be used for 265 or 208/230 volt physical disconnect where required by local codes. The switch is rated at 30 amp capacity. The switch is for use with Trane's standard subbases or hard wire kit.

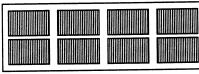


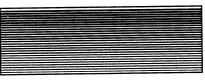
Condensate Drain Kit

This kit attaches to the wall sleeve base pan for controlled internal or external disposal of condensate and defrost water.

Outdoor Grilles

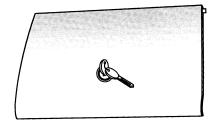
Outdoor grilles are available in stamped aluminum and an attractive extruded aluminum architectural grille.





Security Key Locks

The installation of Trane's security key locks helps prevent tampering of the controls used to set temperature, heating and cooling functions. Locks are available for all PTAC models.



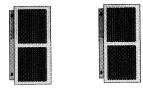
Remote Temperature Sensor

This sensor allows for inexpensive temperature sensing on an internal wall for more accurate temperature control.



Deflector Baffle Kit

The kit includes two air deflection baffles. These deflectors direct the air in toward the center and away from the inlet to prevent recirculation of the hot condenser air. This kit is *not* to be used when the outdoor grille is provided by Trane.



Hard-Wire Kit

This kit is used to permanently wire to chassis when standard subbase and power cord are not utilized.



Circuit Breaker Kit

The circuit breaker kit, available in 15, 20, 25 or 30 amp, can be used withTrane's subbases. It gives overcurrent protection and its location allows turning unit on or off without tools.

Power Vent and Damper Kit

Installation of the power vent can increase the cfm to 70. The damper will automatically close when unit is not powered.

Power Door Kit

Door will power open to allow fresh air when the unit fan is on and spring closed when the unit fan is off.



Warranty

Warranty Information

Standard Warranty

•Full First-Year Warranty

Trane will repair or replace, free of charge including labor, any part which proves to be defective due to workmanship or materials.

•Full Five-Year Sealed System Warranty

Trane will repair or replace, free of charge including labor, the evaporator, condenser, compressor or connecting tubing which proves to be defective due to workmanship or materials.

•Limited Second through Fifth Year Warranty

During the 2nd through 5th year, Trane will provide, free of charge, functional parts which prove to be defective due to workmanship or materials. Components covered are switches, solenoids, fan motors, thermostats, circuit boards, factory installed heaters, blower wheel, fan propeller and capacitor.

This limited warranty does not include diagnostic time, labor or any transportation and reinstallation charges that may be required.





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