

# TECHNICAL SPECIFICATIONS

## P7RD Series

### Single Packaged Air Conditioner

**P7RD 13 SEER, R-410A**

**2 thru 4 Ton Units**

**Cooling: 24,000 to 47,000 Btuh**

The P7 Series single packaged air conditioners are high efficiency self contained cooling and heating units that can be installed on a slab. Units are ETL and ETLc listed.



### WARRANTY

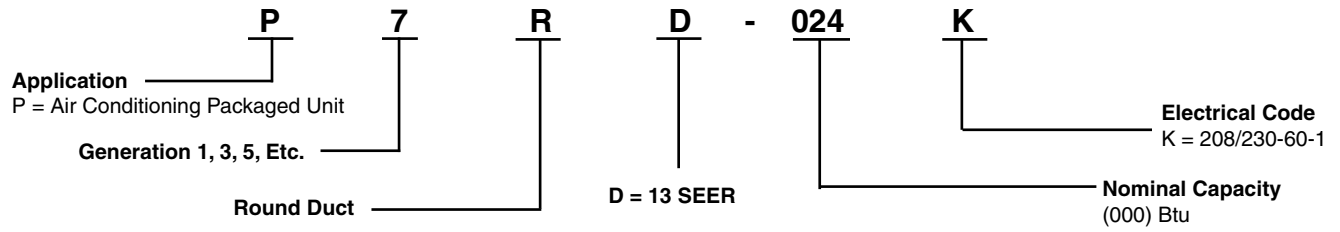
- This product offers a 10-year all-parts warranty.
- This product offers a 10 Year Quality Pledge to replace the unit if the compressor fails in the first 10 years of operation, to the original owner.
- Consumer product registration required for 10 year All Parts Warranty and Quality Pledge within a limited period of time after the installation. See current warranty document or visit our consumer web site for warranty details.

### FEATURES and BENEFITS

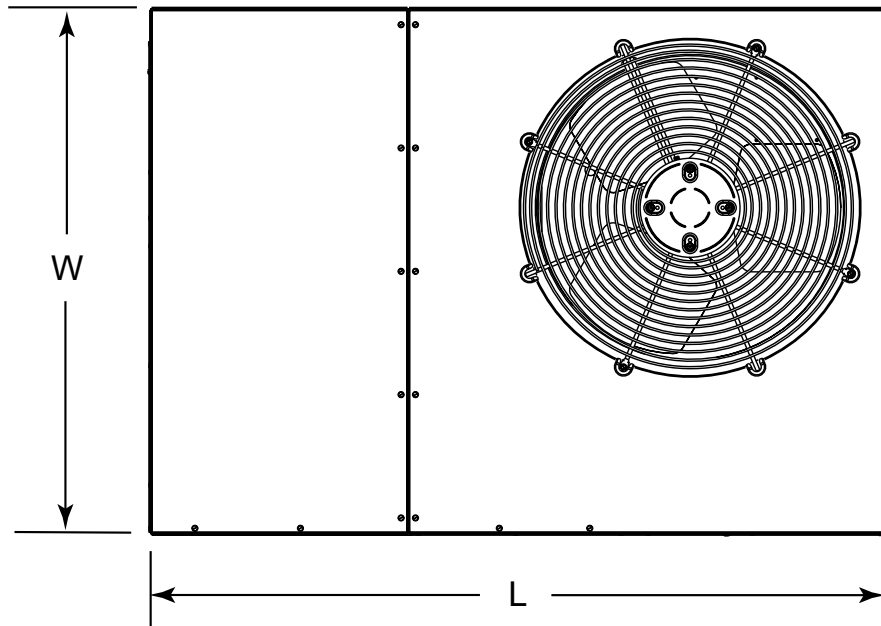
- **Quality Compressor:** State of the art compressor is standard equipment.
- **R-410A Refrigerant:** Earth friendly non-ozone depleting refrigerant.
- **Hi Pressure Switches:** Ensure long compressor life.
- **Micro-Channel Condenser Coils:** All aluminum coils which provide high corrosion resistance.
- **Copper Tube / Aluminum Fin Coil:** Indoor coils are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability.
- **Permanently Lubricated Condenser Motor:** A heavy duty PSC motor for long lasting reliability and quiet operation. Requires no maintenance and is completely protected from rain and snow.
- **Low Voltage Transformer:** Includes 3 Amp fuse to protect low voltage circuit.
- **Liquid Line Filter Driers:** Factory installed at a convenient location for service.
- **Designed Using Galvanized Steel:** With a polyester urethane coat finish. The 950 hour salt spray finish is 1.5 mil thick and resists corrosion 50% better than comparable units.
- **Compact Footprint and Profile:** Make the P7 Series easy to install and transport.
- **0" Clearance:** To combustibles on duct side of the unit allows for installations in tight areas.
- **Wire Guard Coated with Earth Friendly Epoxy and Plastic Mesh Hail Guard::** A guard that will never rust and protects the units coil from being damaged.
- **Raised Base Pan:** Allows water to drain away from the unit.
- **Easy Compressor and Control Access:** Designed to make servicing easier for the contractor, access panels are provided to all controls and the compressor from the side of the unit. Hi/low service ports allow access without disrupting operation.
- **Easy Access:** To the evaporator coil for cleaning and general maintenance.
- **Drain Trap:** Design optimizes drainage capabilities.
- **Removable Top Grille Assembly:** Allows ease of service to the fan motor.
- **Optional Electric Heat:** Field installed 5 – 20 KW.
- **Duct Collars:** Reduce Installation costs.



# MODEL IDENTIFICATION CODE



# DIMENSIONS

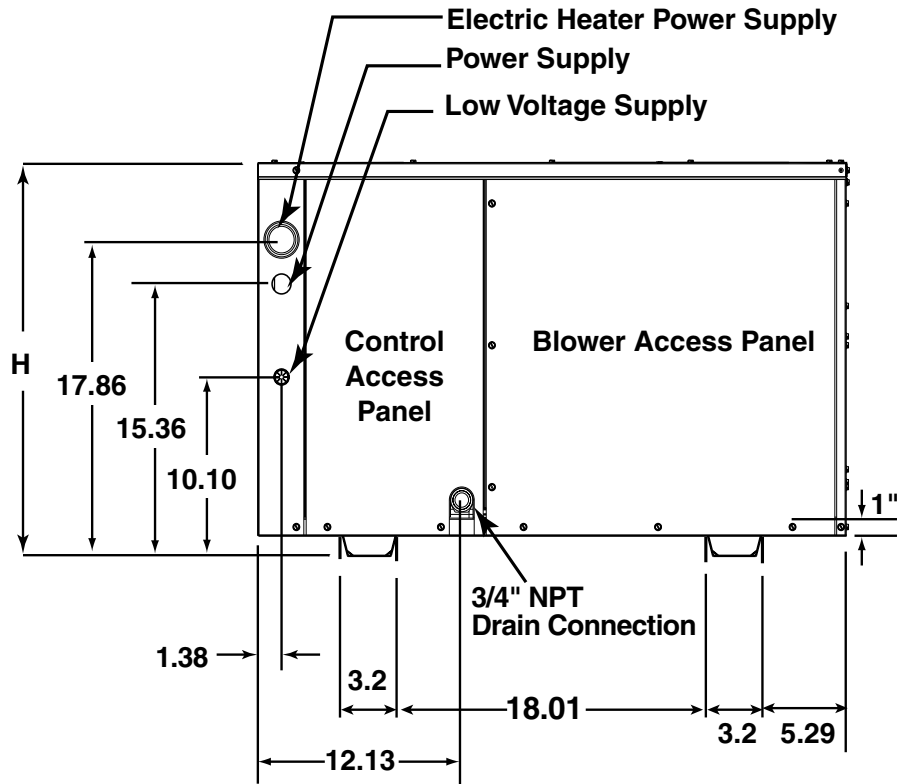


Top View

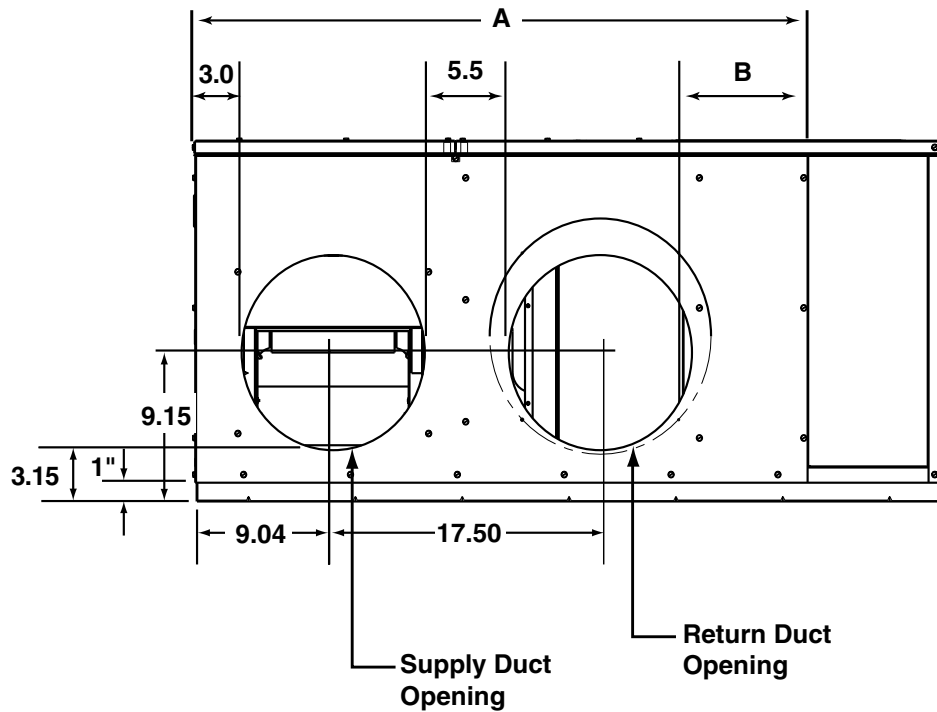
Model No. P7RD-	(L) Length	(W) Width	(H) Height	A	B
024K	49	35	22.2	35.02	2.48
030K	49	35	22.2	35.02	2.48
036K	49	35	30.2	35.02	2.48
042K	49	35	30.2	35.02	2.48
048K	49	35	30.2	35.02	2.48

Model Number P7RD-	Return Diameter (in)	Supply Diameter (in)
024K	12	12
030K	12	12
036K	14	12
042K	14	12
048K	14	12
060K	14	12

# DIMENSIONS Continued



Side View



Back (Duct) View

# PHYSICAL SPECIFICATIONS

## P7RD Models

Model Number P7RD		024K	030K	036K	042K	048K	
<b>Electrical Data</b>	Volts-Cycles-Phase (1)		208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
	Total Amps		12.3	13.5	18.2	24.6	25.6
	Delay Fuse Max. (2)		20	25	35	45	50
	Min. Circuit Ampacity		14.8	16.8	22.0	29.6	30.8
<b>Condenser Data</b>	Outdoor Coil	Face Area (SQ/FT)	9.6	9.6	12.8	12.8	12.8
		Rows-FPI	MC	MC	MC	MC	MC
	Fan Motor	Type	PSC	PSC	PSC	PSC	PSC
		Amps	1.2	1.2	1.1	1.5	1.5
		RPM	825	825	1100	1100	1100
		HP	1/5	1/5	1/8	1/4	1/4
	Fan Blade	Dia - # Blades	20-3	20-3	20-3	20-3	20-3
		SCFM	2800	2800	2800	3000	3000
	Compressor Data	RLA	9.8	11	15	20	21
		LRA	49	59	88	115	115
<b>Evaporator Data</b>	Indoor Coil	Face Area (SQ/FT)	3.6	3.6	5.1	5.1	5.1
		Rows-FPI	3-14	3-14	3-15	3-15	3-15
		Metering Device	Fixed Orifice	Fixed Orifice	Fixed Orifice	Fixed Orifice	Fixed Orifice
	Blower	Type	PSC	PSC	PSC	PSC	PSC
		Amps	1.3	1.3	2.1	3.1	3.1
		RPM	980	980	900	1080	1080
		HP	1/4	1/4	1/3	1/2	1/2
		CFM @ ESP, WC	760 @ .3	1045 @ .3	1280 @ .3	1360 @ .3	1740 @ .3
<b>Refrigerant Charge</b>		Oz.	58	66	81	66	63
<b>Approximate Weight (lbs.)</b>		Shipping	245	246	290	300	303

(1) Operating Voltage Range: 187v min. - 253v max. Amperage and wire size based on refrigeration system only. See electrical data tables for supplemental electric heaters.

(2) HACR Type Circuit Breakers may be used.

(3) Airflow performance is with a dry coil.

# ELECTRICAL DATA

Model	Heater kw	Single Circuit		Multiple Supply Circuit Option			
		MCA	MOP	Circuit A (Compressor and Fan)		Circuit B (Blower and Heater)	
				MCA	MOP	MCA	MOP
P7RD-024K	0	14.8	20	-	-	-	-
	5	26.6	30	-	-	-	-
	8	41.2	45	-	-	-	-
	10	51.6	60	-	-	-	-
P7RD-030K	0	16.3	25	-	-	-	-
	5	26.6	30	-	-	-	-
	8	41.2	45	-	-	-	-
	10	51.6	60	-	-	-	-
	15	76.6	80	50	60	26.6	30
P7RD-036K	0	22.0	35	-	-	-	-
	5	27.6	35	-	-	-	-
	8	42.2	45	-	-	-	-
	10	52.6	60	-	-	-	-
	15	77.6	80	50	60	27.6	30
P7RD-042K	0	29.6	45	-	-	-	-
	5	29.6	45				
	8	43.5	45				
	10	53.9	60				
	15	78.9	80	50	60	28.9	30
	20	103.9	110	50	60	53.9	60
P7RD-048K	0	30.8	50				
	5	30.8	50				
	8	43.5	50				
	10	53.9	60				
	15	78.9	80	50	60	28.9	30
	20	103.9	110	50	60	53.9	60

**NOTE:** If electric heat is installed, and the overcurrent rating exceeds 60A, internal circuit breakers must be installed in addition to branch circuit protection at the distribution panel.

## SYSTEM COOLING CAPACITIES

Model Number P7RD-	Cooling Btuh	SEER	EER
024K	23,800	13	10.8
030K	28,600	13	10.6
036K	36,000	13	11.0
042K	40,500	13	11.0
048K	47,000	13	11.0

## BLOWER PERFORMANCE

Heat Rise Data (based on Nominal 10kw electric heater)

Model Number P7RD-		External Static Pressure Drop - inches water column																	
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9	
Unit	Blower Setting	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE
024K* **	Low	840	38	800	39	760	42	705	45	645	49	565	56	460	69	265	119	230	137
	High	1140	28	1100	29	1045	30	975	32	905	35	815	39	700	45	535	59	305	104
030K @	Low	840	38	800	39	760	42	705	45	645	49	565	56	460	69	265	119	230	137
	High	1140	28	1100	29	1045	30	975	32	905	35	815	39	700	45	535	59	305	104
036K @	Low	1340	24	1315	24	1280	25	1245	25	1210	26	1165	27	1110	28	1065	30	1005	31
	High	1520	21	1490	21	1460	22	1415	22	1380	23	1325	24	1280	25	1210	26	1120	28
042K @	Low	1410	22	1380	23	1360	23	1330	24	1295	24	1260	25	1215	26	1160	27	1075	29
	Med	1805	18	1775	18	1740	18	1700	19	1655	19	1595	20	1535	21	1465	22	1390	23
	High	2140	15	2090	15	2035	16	1985	16	1935	16	1865	17	1785	18	1710	18	1625	19
048K ** *	Low	1410	22	1380	23	1360	23	1330	24	1295	24	1260	25	1215	26	1160	27	1075	29
	Med	1805	18	1775	18	1740	18	1700	19	1655	19	1595	20	1535	21	1465	22	1390	23
	High	2140	15	2090	15	2035	16	1985	16	1935	16	1865	17	1785	18	1710	18	1625	19

**NOTE:**

Temperature rises shaded gray are for reference only. These conditions are not recommended

\* Denotes factory set cooling speed

\*\* Denotes factory set electric heating speed

@Denotes Factory cooling and electric heating speed

COPPER WIRE SIZE – AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit Ampacity
200	150	100	50	
6	8	10	14	15
4	6	8	12	20
4	6	8	10	25
4	4	6	10	30
3	4	6	8	35
3	4	6	8	40
2	3	4	6	45
2	3	4	6	50

Wire Size based on N.E.C. for 60° type copper conductors.

## ACCESSORIES

### Heater Application Matrix

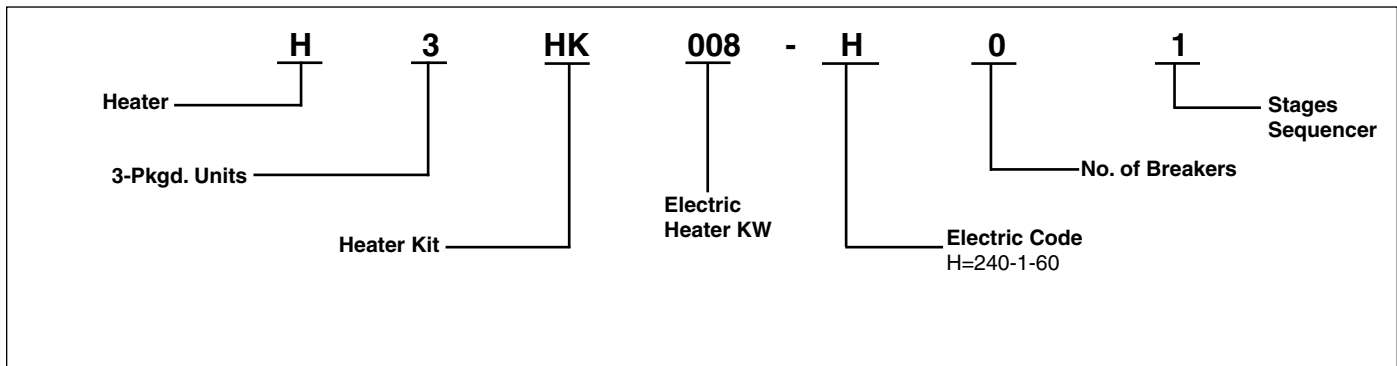
Model Number P7RD-	H3HK-005H-01B 917166B	H3HK-008H-01B 917167B	H3HK-010H-01B 917168B	H3HK-015H-01B 917169B	H3HK-020H-01B 917170B	H3HK-015H-21B 917172B	H3HK-020H-21B 917173B
024K	X	X	X	NA	NA	NA	NA
030K	X	X	X	X(2)	NA	X	NA
036K	X	X	X	X(2)	NA	X	NA
042K	X	X	X	X(2)	X(2)	X	X
048K	X	X	X	X(2)	X(2)	X	X

NA = Not Approved.

() = Number of internal circuit breaker kits required.

X = Branch circuit protection only.

### MODEL IDENTIFICATION CODE



### Accessories

Description	Part Number
4-Pole single circuit adaptor	913350
6-Pole single circuit adaptor	913556
Circuit Breaker Single Phase (2-pole)	913554
Extreme High Wind Kit - Ground Mount	920908



# COOLING EXPANDED RATINGS

## P7RD-024K

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
600	80	62	27.7	18.5	1.40	25.4	18.3	1.69	23.0	18.2	2.0	20.6	18.0	2.3	18.3	17.9	2.6	15.9	15.9	2.9
	80	67	28.2	18.1	1.47	26.2	17.1	1.72	24.3	16.2	2.0	22.3	15.2	2.2	20.4	14.2	2.5	18.4	13.2	2.7
	80	72	28.6	17.8	1.53	27.1	16.0	1.75	25.5	14.2	2.0	24.0	12.3	2.2	22.5	10.5	2.4	20.9	8.7	2.6
	75	63	27.4	15.5	1.26	25.1	15.2	1.55	22.9	14.9	1.8	20.6	14.5	2.1	18.3	14.2	2.4	16.0	13.9	2.7
750	80	62	30.3	20.6	1.39	28.0	20.4	1.68	25.6	20.3	2.0	23.3	20.1	2.3	20.9	20.0	2.6	18.5	18.5	2.8
	80	67	30.8	20.2	1.46	28.8	19.3	1.71	26.9	18.3	2.0	24.9	17.3	2.2	23.0	16.3	2.5	21.0	15.3	2.7
	80	72	31.2	19.9	1.53	29.7	18.1	1.74	28.2	16.3	1.9	26.6	14.5	2.2	25.1	12.7	2.4	23.5	10.8	2.6
	75	63	30.0	17.6	1.25	27.8	17.3	1.54	25.5	17.0	1.8	23.2	16.7	2.1	20.9	16.3	2.4	18.6	16.0	2.7
900	80	62	31.2	22.3	1.53	28.9	22.2	1.82	26.5	22.0	2.1	24.1	21.9	2.4	21.8	21.7	2.7	19.4	19.4	3.0
	80	67	31.7	22.0	1.60	29.7	21.0	1.85	27.8	20.0	2.1	25.8	19.1	2.3	23.9	18.1	2.6	21.9	17.1	2.8
	80	72	32.1	21.7	1.66	30.6	19.8	1.87	29.0	18.0	2.1	27.5	16.2	2.3	26.0	14.4	2.5	24.4	12.6	2.7
	75	63	30.9	19.4	1.39	28.6	19.1	1.68	26.4	18.7	2.0	24.1	18.4	2.2	21.8	18.1	2.5	19.5	17.8	2.8

## P7RD-030K

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
850	80	62	33.8	21.8	1.87	31.0	21.9	2.10	28.3	21.9	2.32	25.5	22.0	2.55	22.7	22.1	2.78	19.9	19.9	3.01
	80	67	34.2	21.7	1.85	32.0	20.8	2.09	29.7	19.9	2.33	27.5	19.0	2.57	25.2	18.1	2.82	22.9	17.2	3.06
	80	72	34.7	21.5	1.84	32.9	19.7	2.09	31.2	17.8	2.34	29.4	16.0	2.60	27.7	14.1	2.85	26.0	12.3	3.10
	75	63	47.1	16.4	2.21	44.5	16.3	2.44	41.8	16.2	2.67	39.1	16.1	2.91	36.4	16.0	3.14	33.7	15.9	3.37
1000	80	62	34.9	23.9	1.87	32.2	24.0	2.10	29.4	24.1	2.33	26.6	24.2	2.56	23.8	23.8	2.78	21.0	21.0	3.01
	80	67	35.4	23.8	1.85	33.1	22.9	2.10	30.8	22.0	2.34	28.6	21.1	2.58	26.3	20.2	2.82	24.1	19.4	3.06
	80	72	35.8	23.7	1.84	34.0	21.8	2.09	32.3	20.0	2.35	30.6	18.1	2.60	28.8	16.3	2.85	27.1	14.4	3.11
	75	63	48.3	18.5	2.21	45.6	18.4	2.45	42.9	18.3	2.68	40.2	18.2	2.91	37.5	18.1	3.14	34.9	18.0	3.37
1050	80	62	35.2	24.8	1.86	32.4	24.9	2.09	29.6	25.0	2.32	26.9	25.1	2.55	24.1	24.1	2.78	21.3	21.3	3.01
	80	67	35.6	24.7	1.85	33.4	23.8	2.09	31.1	23.0	2.33	28.8	22.1	2.57	26.6	21.2	2.81	24.3	20.3	3.05
	80	72	36.0	24.6	1.83	34.3	22.8	2.09	32.6	20.9	2.34	30.8	19.0	2.59	29.1	17.2	2.85	27.3	15.3	3.10
	75	63	48.5	19.5	2.21	45.8	19.4	2.44	43.2	19.2	2.67	40.5	19.1	2.90	37.8	19.0	3.13	35.1	18.9	3.36

## P7RD-036K

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1100	80	62	43.1	29.3	2.36	38.4	31.5	2.63	33.8	33.7	2.89	29.1	29.1	3.16	24.4	24.4	3.42	19.7	19.7	3.69
	80	67	44.4	29.5	2.31	41.3	28.3	2.62	38.1	27.1	2.93	35.0	26.0	3.24	31.8	24.8	3.55	28.6	23.6	3.86
	80	72	45.8	29.6	2.25	44.1	25.1	2.61	42.5	20.5	2.96	40.8	15.9	3.32	39.2	11.4	3.68	37.5	6.8	4.04
	75	63	49.4	10.3	2.50	45.0	11.8	2.77	40.6	13.3	3.05	36.2	14.9	3.32	31.9	16.4	3.60	27.5	18.0	3.87
1250	80	62	44.4	30.9	2.39	39.8	33.1	2.66	35.1	35.1	2.92	30.4	30.4	3.19	25.7	25.7	3.45	21.1	21.1	3.72
	80	67	45.8	31.0	2.34	42.6	29.8	2.65	39.4	28.7	2.96	36.3	27.5	3.27	33.1	26.3	3.58	30.0	25.1	3.89
	80	72	47.1	31.2	2.28	45.4	26.6	2.64	43.8	22.0	2.99	42.2	17.5	3.35	40.5	12.9	3.71	38.9	8.3	4.07
	75	63	50.7	11.8	2.53	46.3	13.3	2.80	41.9	14.9	3.08	37.6	16.4	3.35	33.2	18.0	3.63	28.8	19.5	3.90
1400	80	62	44.9	32.3	2.47	40.2	34.5	2.73	35.6	35.6	3.00	30.9	30.9	3.26	26.2	26.2	3.53	21.5	21.5	3.79
	80	67	46.2	32.4	2.41	43.1	31.3	2.72	39.9	30.1	3.03	36.7	28.9	3.35	33.6	27.7	3.66	30.4	26.5	3.97
	80	72	47.5	32.6	2.36	45.9	28.0	2.71	44.3	23.5	3.07	42.6	18.9	3.43	41.0	14.3	3.79	39.3	9.8	4.14
	75	63	51.2	13.2	2.61	46.8	14.8	2.88	42.4	16.3	3.15	38.0	17.8	3.43	33.7	19.4	3.70	29.3	20.9	3.98

# COOLING EXPANDED RATINGS (CONTINUED)

## P7RD-042K

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1200	80	62	42.6	39.1	2.37	39.9	37.9	2.71	37.3	36.8	3.0	34.6	34.6	3.4	31.9	31.9	3.7	29.2	29.2	4.1
	80	67	48.8	32.1	2.49	45.6	30.8	2.82	42.4	29.5	3.2	39.2	28.2	3.5	36.0	26.9	3.8	32.9	25.6	4.2
	80	72	54.9	25.1	2.61	51.3	23.6	2.94	47.6	22.2	3.3	43.9	20.8	3.6	40.2	19.3	3.9	36.5	17.9	4.3
	75	63	45.0	27.5	2.46	42.2	26.3	2.80	39.4	25.1	3.1	36.6	23.9	3.5	33.8	22.7	3.8	31.0	21.5	4.1
1350	80	62	43.9	40.7	2.47	41.2	39.5	2.81	38.5	38.4	3.1	35.8	35.8	3.5	33.1	33.1	3.8	30.4	30.4	4.2
	80	67	50.1	33.7	2.59	46.9	32.4	2.93	43.7	31.1	3.3	40.5	29.8	3.6	37.3	28.5	3.9	34.1	27.2	4.3
	80	72	56.2	26.7	2.71	52.5	25.3	3.04	48.8	23.8	3.4	45.2	22.4	3.7	41.5	21.0	4.0	37.8	19.5	4.4
	75	63	46.2	29.1	2.56	43.4	27.9	2.90	40.6	26.7	3.2	37.9	25.5	3.6	35.1	24.3	3.9	32.3	23.1	4.2
1500	80	62	43.8	42.1	2.52	41.2	41.0	2.85	38.5	38.5	3.2	35.8	35.8	3.5	33.1	33.1	3.9	30.4	30.4	4.2
	80	67	50.0	35.1	2.64	46.8	33.8	2.97	43.6	32.5	3.3	40.4	31.2	3.6	37.3	30.0	4.0	34.1	28.7	4.3
	80	72	56.2	28.1	2.76	52.5	26.7	3.08	48.8	25.3	3.4	45.1	23.8	3.7	41.4	22.4	4.1	37.7	21.0	4.4
	75	63	46.2	30.5	2.61	43.4	29.3	2.94	40.6	28.1	3.3	37.8	27.0	3.6	35.0	25.8	3.9	32.2	24.6	4.3

## P7RD-048K

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1500	80	62	56.5	38.1	3.07	52.0	33.8	3.51	47.4	29.6	3.94	42.8	25.3	4.38	38.3	21.0	4.81	33.7	16.8	5.25
	80	67	57.5	31.0	3.06	53.6	29.2	3.51	49.7	27.3	3.96	45.7	25.5	4.40	41.8	23.7	4.85	37.9	21.8	5.30
	80	72	58.5	23.9	3.05	55.2	24.5	3.51	51.9	25.1	3.97	48.6	25.7	4.43	45.3	26.3	4.89	42.0	26.9	5.35
	75	63	52.0	35.2	3.04	47.6	31.5	3.48	43.2	27.7	3.92	38.7	23.9	4.35	34.3	20.1	4.79	29.8	16.3	5.23
1650	80	62	57.8	48.0	2.97	53.2	43.7	3.41	48.6	39.5	3.84	44.1	35.2	4.28	39.5	30.9	4.71	35.0	26.7	5.15
	80	67	58.8	40.9	2.96	54.8	39.1	3.41	50.9	37.2	3.86	47.0	35.4	4.31	43.0	33.6	4.75	39.1	31.7	5.20
	80	72	59.8	33.8	2.95	56.5	34.4	3.41	53.1	35.0	3.87	49.8	35.6	4.34	46.5	36.2	4.80	43.2	36.8	5.26
	75	63	53.3	45.1	2.94	48.8	41.4	3.38	44.4	37.6	3.82	40.0	33.8	4.26	35.5	30.0	4.69	31.1	26.2	5.13
1800	80	62	58.2	42.3	3.09	53.7	38.0	3.52	49.1	33.8	3.96	44.6	29.5	4.39	40.0	25.2	4.83	35.4	21.0	5.26
	80	67	59.2	35.2	3.08	55.3	33.4	3.53	51.4	31.5	3.98	47.4	29.7	4.42	43.5	27.9	4.87	39.6	26.0	5.32
	80	72	60.2	28.1	3.07	56.9	28.7	3.53	53.6	29.3	3.99	50.3	29.9	4.45	47.0	30.5	4.91	43.7	31.1	5.37
	75	63	53.7	39.4	3.06	49.3	35.7	3.50	44.9	31.9	3.93	40.4	28.1	4.37	36.0	24.3	4.81	31.6	20.5	5.25





### GENERAL TERMS OF LIMITED WARRANTY

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service in accordance with the terms of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the NORDYNE warranty department for a copy.

**NORDYNE**  
COMPLETE COMFORT. GENUINE VALUE.

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