

## TECHNICAL SPECIFICATIONS

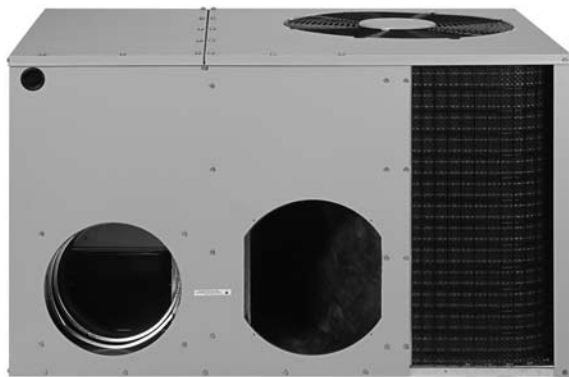
# P5RF Series

## Single Packaged Air Conditioner Single Phase

15 SEER, 12 EER, R-410A  
2 thru 5 Ton Units

Cooling: 24,000 to 57,500 Btuh

The P5 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.



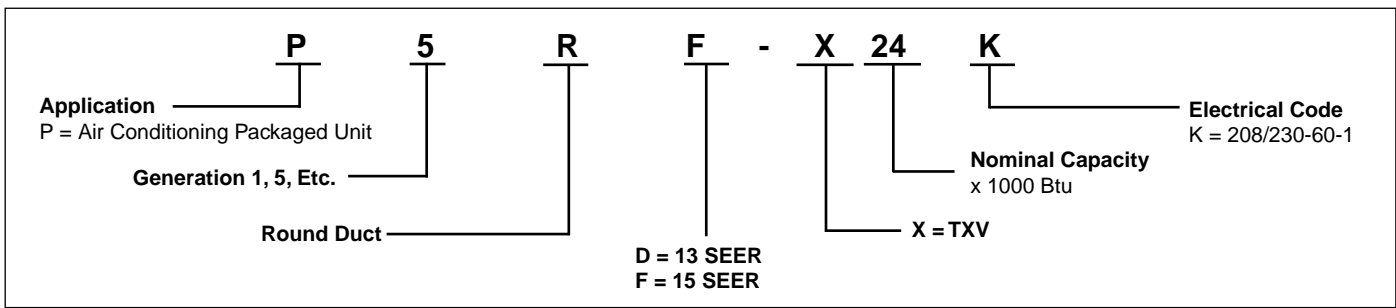
## WARRANTY

- This product offers a 10-year All-Parts Warranty.
- This product offers a 10 year Quality Pledge to replace the entire unit, if the unit's major component (heat exchanger or compressor) fails within the first 10 years of operation, to the original owner.
- Consumer product registration required for both 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.

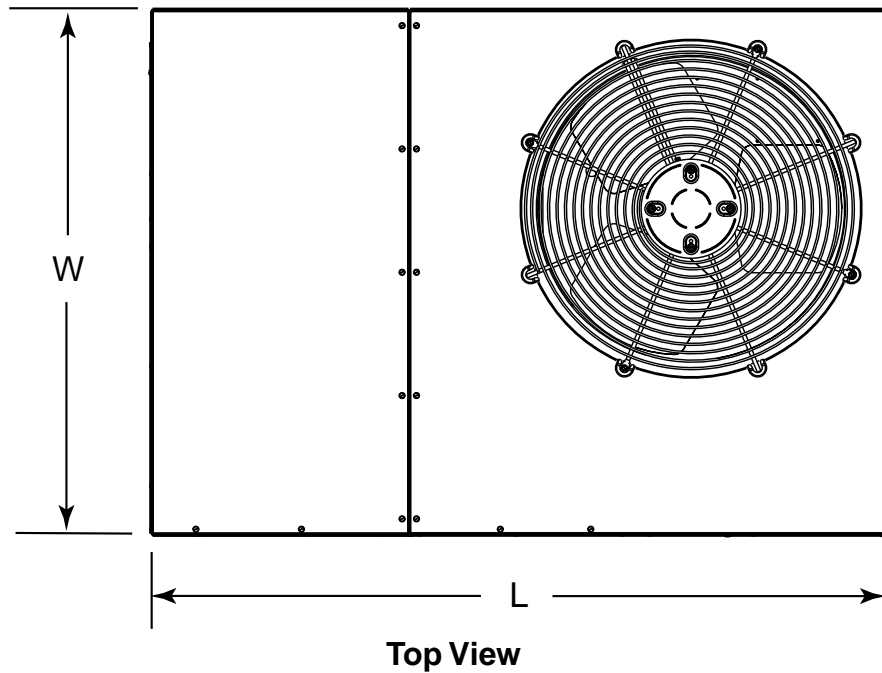
## FEATURES and BENEFITS

- **State-of-the-art Copeland ultra-tech Scroll compressor:** Provides two stage heat/cool.
- **R-410A Refrigerant:** Environmentally friendly.
- **Designed using galvanized steel:** With a polyester urethane coat finish. The 950 hour salt spray finish resists corrosion 50% better than comparable units.
- **Both indoor and outdoor coils:** Are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability.
- **The service valves are easily accessible:** And simplify servicing of the refrigeration system.
- **A wire coil guard and mesh hail guard that will never rust:** Protects the coil from being damaged by balls, lawnmowers, hail, etc.
- **Designed to make servicing easier:** For the contractor, access panels are provided to all major components.
- **0" clearance:** To combustibles on duct side of the unit allows for installations in tight areas.
- **Easy access:** To evaporator for cleaning and general maintenance.
- **Drain trap:** Design optimizes drain-age capabilities.
- **Easy to install:** Electric heat strip provides up to 20 kw of heat output.
- **Compact footprint and profile:** Make the P5 Series easy to install and transport.
- **High and Low Pressure Switches:** Added compressor protection.
- **Compressor sound blanket:** Is standard.
- **Energy efficient:** Brushless DC (ECM) blower motor.

# MODEL IDENTIFICATION CODE



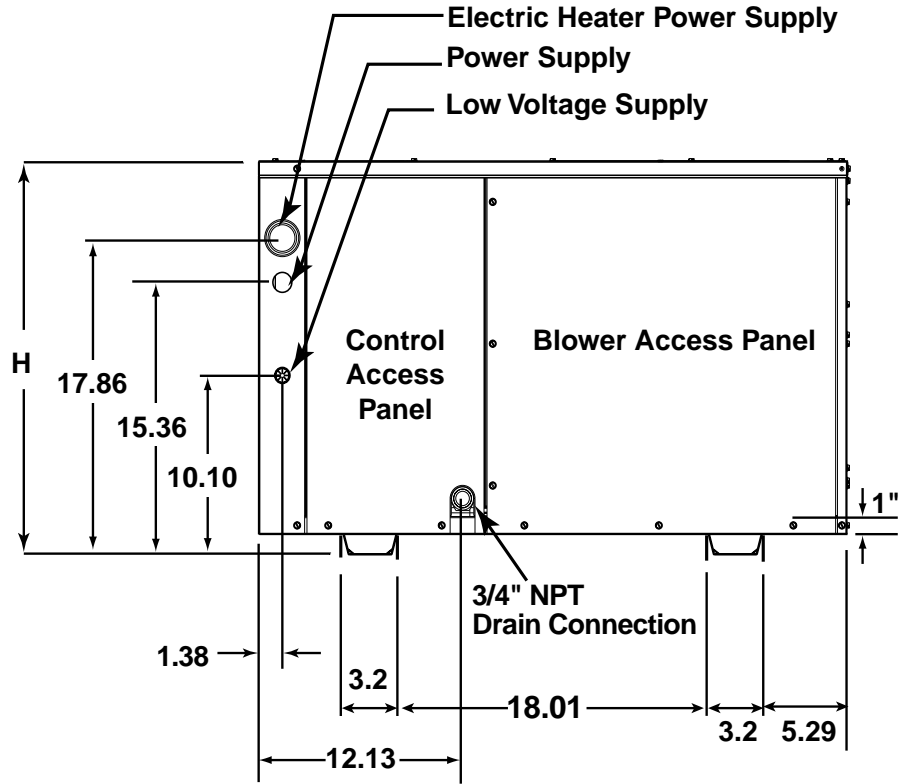
# DIMENSIONS



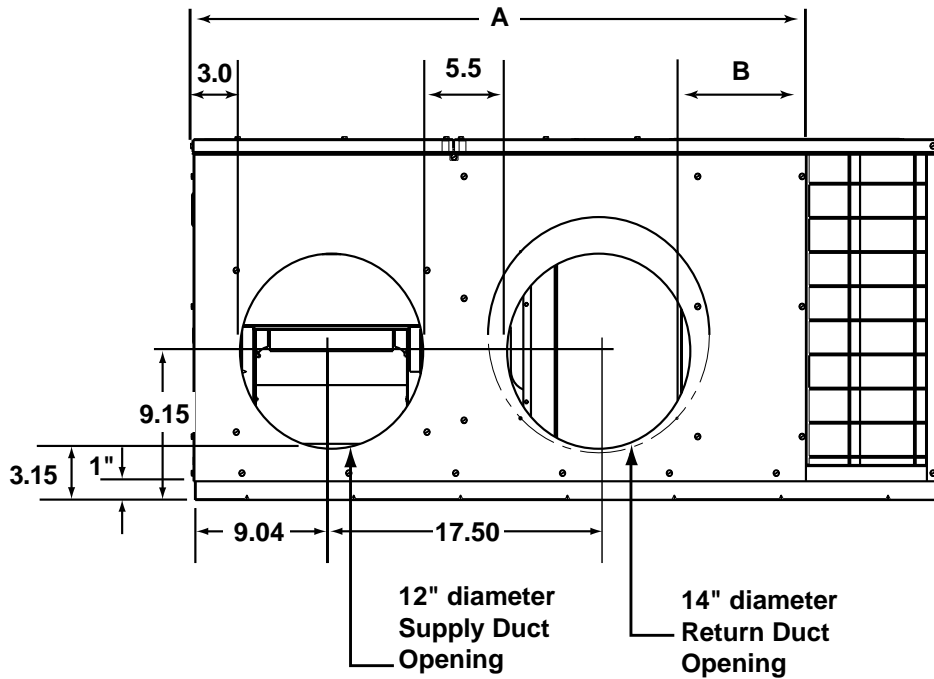
Model No. P5RF-	(L) Length	(W) Width	(H) Height	A	B
X24K	49	35	30.2	35.02	2.48
X36K	49	35	30.2	35.02	2.48
X48K	49	35	38.2	35.02	2.48
X60K	63	35	38.2	35.02	2.48

Model No. P5RF-	Return Diameter (in)	Supply Diameter (in)
X24K	14	12
X36K	14	12
X48K	14	12
X60K	14	12

# DIMENSIONS Continued



Side View



Back (Duct) View

# PHYSICAL SPECIFICATIONS

## P5RF Models

Model No. P5RF	X24K	X36K	X48K	X60K
<b>Electric Rating - 60Hz (a)</b>				
Operating Voltage Range	187 - 253	187 - 253	187 - 253	187 - 253
Min. Circuit Ampacity (a)	18.1	26.1	37.7	40.1
Field Wire Size - AWG (a)	12	10	8	8
Delay Fuse - Max. (b)	25	40	50	60
Total Unit - Amps FLA	15.5	21.9	32.4	34.3
<b>Compressor Data</b>				
Volts	208 - 230	208 - 230	208 - 230	208 - 230
Rated Load Amps	10.2	16.6	21.1	23.0
Lock Rotor Amps	52.0	82.0	96.0	118.0
<b>Fan Motor and Condenser</b>				
Fan Motor - HP - RPM	1/5 - 1100	1/4 - 1100	1/2 - 1100	1/2 - 1100
Fan Motor - Amps	1.2	1.2	5.3	5.3
Fan Diameter / CFM	20" - 2800	20" - 2800	20" - 3400	24" - 4000
<b>Motor and Evaporator</b>				
Blower Motor - HP - ECM	1/2	1/2	3/4	3/4
Blower Motor - Amps	4.1	4.1	6.0	6.0
CFM @ E.S.P. - in. W.C.	800 @ .30	1000 @ .30	1500 @ .30	1700 @ .30
<b>Refrigerant Charge</b>				
<b>R-410A - Oz.</b>	128.0	131.0	171.2	240.0
<b>Shipping weight - lbs.</b>	295	295	395	430

(a) Amperage and wire size based on refrigeration system only. See Electrical Data tables for supplemental electric heaters. Refer to National Electric Code for additional derating factors for field installed conductors.

(b) Use time delay fuse or "HACR" type circuit breaker.

## ELECTRICAL DATA

Model Number	Heater Installed Nom. KW	Single Supply Circuit Option										Multiple Supply Circuit Option													
		Minimum Circuit Amp.					Maximum Over-current Rating*					Circuit A					Circuit B								
		Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Minimum Circuit Amp.	Maximum Over-current Rating	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)	Minimum Circuit Amp.	Maximum Over-current Rating	Rec Wire Gauge (60°C Cu)	Rec Wire Gauge (75°C Cu)	Rec Wire Gauge (90°C Cu)		
P5RF-X24K	0	18.1	12	12	12	12	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	30.1	8	8	8	8	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	44.7	6	8	8	8	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	55.1	4	6	6	6	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P5RF-X36K	0	26.1	10	10	10	10	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	30.1	8	8	8	8	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	44.7	6	8	8	8	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	55.1	4	6	6	6	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	80.1	3	4	4	4	90	50	6	8	8	60	30.1	8	8	8	8	35	8	8	8	8	8	8	35
P5RF-X48K	0	37.7	8	8	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	37.7	8	8	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	47.1	6	8	8	8	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	57.5	4	6	6	6	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	82.5	3	4	4	4	90	50	6	8	8	50	32.5	8	8	8	35	8	8	8	8	8	8	8	35
	20	107.5	1	2	3	3	110	50	6	8	8	50	57.5	4	4	6	60	4	6	6	6	6	6	6	60
P5RF-X60K	0	40.1	8	8	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	40.1	8	8	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	47.1	6	8	8	8	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	57.5	4	6	6	6	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	82.5	3	4	4	4	90	50	6	8	8	50	32.5	8	8	8	35	8	8	8	8	8	8	8	35
	20	107.5	1	2	3	3	110	50	6	8	8	50	57.5	4	4	6	60	4	6	6	6	6	6	6	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 P5RF-	Cooling Btuh	SEER	EER
X24K	24,000	15	12
X36K	35,400	15	12
X48K	47,500	15	12
X60K	57,500	15	12

## BLOWER PERFORMANCE

Model Number		External Static Pressure Drop - inches water column							
P5RF-		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
X24K	Tap T1	989	790	523					
	* Tap T2	1034	849	561	439	385			
	** Tap T3	1080	924	797	718	675	613	569	514
	*** Tap T4	1161	1101	1042	999	959	908	851	817
	Tap T5	1324	1291	1250	1203	1165	1124	1081	1029
X36K	* Tap T1	1064	874	637	581	512	449	394	
	Tap T2	1111	955	909	847	798	754	699	660
	** Tap T3	1170	1110	1060	1025	987	942	884	842
	*** Tap T4	1478	1451	1419	1387	1355	1320	1283	1242
	Tap T5	1578	1547	1516	1482	1452	1420	1381	1349
X48K	* Tap T1	1138	1039	987	945	901	844	792	744
	Tap T2	1315	1278	1239	1203	1160	1123	1078	1029
	*** Tap T3	1465	1434	1402	1359	1320	1284	1244	1201
	** Tap T4	1558	1527	1496	1463	1425	1390	1351	1313
	Tap T5	1739	1710	1681	1651	1618	1582	1545	1512
X60K	Tap T1	1154	1097	1060	1026	979	946	906	868
	* Tap T2	1270	1233	1204	1172	1136	1095	1057	1024
	*** Tap T3	1590	1531	1504	1476	1452	1419	1389	1365
	** Tap T4	1810	1786	1757	1731	1706	1681	1661	1634
	Tap T5	2023	1998	1968	1944	1921	1884	1842	1783

\* Denotes Factory Set Low Cooling Speed

\*\* Denotes Factory Set High Cooling Speed

\*\*\* Denotes Factory Set 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

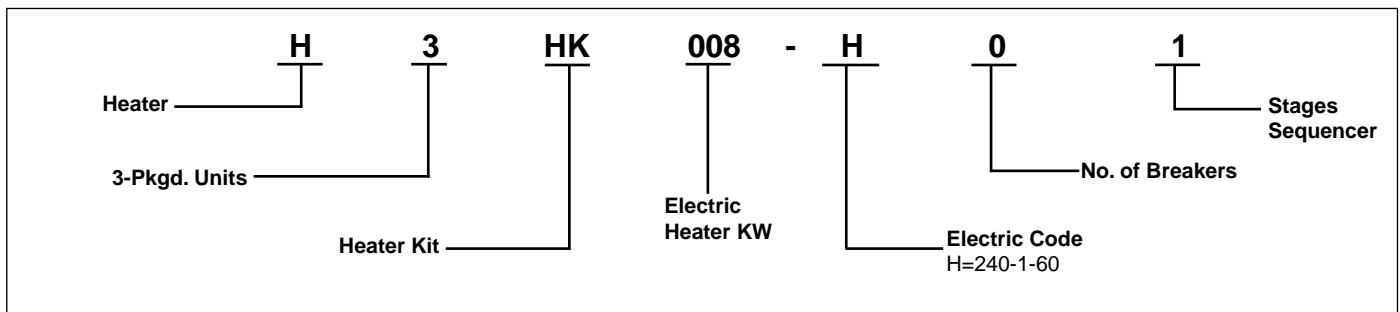
Model Number P5RF-	H3HK-005H-01B 917166B	H3HK-008H-01B 917167B	H3HK-010H-01B 917168B	H3HK-015H-01B 917169B	H3HK-020H-01B 917170B	H3HK-015H-21B 917172B	H3HK-020H-21B 917173B
X24K	X	X	X	NA	NA	NA	NA
X36K	X	X	X	X(2)	NA	X	NA
X48K	X	X	X	X(2)	X(2)	X	X
X60K	X	X	X	X(2)	X(2)	X	X

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	903694

## COOLING EXPANDED RATINGS

### P5RF-X24K

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.
650	80	62	25.8	19.9	1.41	24.8	19.8	1.59	23.7	19.9	1.77	22.5	19.5	1.98	21.2	20.6	2.20	19.9	19.3	2.46
	80	67	28.0	16.4	1.44	26.9	16.3	1.61	25.7	16.4	1.79	24.4	16.1	2.00	23.0	15.8	2.23	21.5	14.7	2.48
	80	72	30.8	12.7	1.46	29.6	12.6	1.63	28.3	12.9	1.82	26.9	12.6	2.03	25.3	12.4	2.25	23.6	12.6	2.51
	75	63	26.1	16.0	1.42	25.1	15.9	1.60	24.0	16.0	1.78	22.8	15.6	1.98	21.4	14.3	2.21	20.0	15.4	2.46
800	80	62	27.0	22.7	1.42	25.9	23.1	1.60	24.8	22.6	1.78	23.6	22.2	1.99	22.4	21.6	2.22	21.1	20.9	2.48
	80	67	29.2	18.3	1.45	28.0	18.8	1.62	26.7	18.4	1.81	25.3	18.2	2.01	23.9	18.1	2.24	22.3	18.0	2.49
	80	72	31.9	13.9	1.47	30.6	14.6	1.65	29.1	14.1	1.83	27.4	14.0	2.03	25.8	14.0	2.26	24.0	14.0	2.52
	75	63	27.2	17.8	1.43	26.1	18.3	1.60	24.9	17.8	1.79	23.6	17.5	1.99	22.2	17.5	2.22	20.7	17.3	2.47
950	80	62	28.0	25.4	1.44	27.0	25.2	1.61	25.9	24.2	1.79	24.8	23.5	2.00	23.5	22.7	2.23	22.1	22.0	2.49
	80	67	30.0	20.5	1.46	28.8	20.7	1.62	27.5	20.2	1.81	26.0	20.1	2.02	24.5	20.0	2.24	22.8	20.0	2.49
	80	72	32.3	15.5	1.48	31.0	15.7	1.65	29.6	15.3	1.83	28.0	15.2	2.04	26.3	15.1	2.27	24.5	15.1	2.52
	75	63	28.0	19.9	1.44	26.9	20.0	1.61	25.6	19.5	1.79	24.3	19.4	2.00	22.8	19.2	2.22	21.2	19.1	2.48

# COOLING EXPANDED RATINGS (CONTINUED)

## P5RF-X36K

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.
900	80	62	35.6	26.7	2.09	34.3	26.5	2.32	32.8	26.6	2.57	31.2	26.0	2.85	29.4	27.3	3.17	27.5	25.5	3.52
	80	67	38.5	22.2	2.11	37.1	22.0	2.35	35.5	22.2	2.60	33.7	21.7	2.88	31.8	21.2	3.20	29.7	19.8	3.55
	80	72	42.5	17.3	2.15	40.8	17.2	2.39	39.0	17.6	2.64	37.0	17.2	2.92	34.6	16.8	3.24	31.8	17.1	3.59
	75	63	37.1	19.9	2.11	35.7	19.7	2.34	34.1	19.8	2.59	32.4	19.3	2.87	30.6	17.6	3.18	28.5	18.9	3.54
1050	80	62	36.8	29.0	2.10	35.4	29.6	2.33	33.9	28.9	2.58	32.2	28.5	2.86	30.4	28.2	3.18	28.4	27.8	3.53
	80	67	39.8	23.9	2.12	38.2	24.6	2.36	36.5	23.9	2.61	34.7	23.6	2.89	32.6	23.4	3.21	30.4	23.3	3.57
	80	72	43.5	18.5	2.16	41.7	19.3	2.40	39.3	18.7	2.64	37.2	18.4	2.92	35.0	18.4	3.24	32.5	18.3	3.60
	75	63	38.3	21.2	2.11	36.8	21.8	2.35	35.1	21.1	2.60	33.3	20.8	2.88	31.3	20.6	3.19	29.2	20.4	3.55
1200	80	62	37.8	31.6	2.11	36.4	31.8	2.34	34.8	31.0	2.59	33.0	30.6	2.87	31.2	30.1	3.19	29.3	29.2	3.55
	80	67	40.7	26.0	2.14	39.1	26.3	2.37	37.3	25.6	2.62	35.4	25.4	2.90	33.3	24.9	3.22	31.0	24.8	3.58
	80	72	43.7	20.0	2.17	42.0	20.3	2.40	40.0	19.6	2.65	37.9	19.5	2.93	35.6	19.3	3.25	33.1	19.3	3.61
	75	63	39.2	22.9	2.12	37.6	23.1	2.35	35.9	22.4	2.61	34.0	22.2	2.89	32.0	21.8	3.20	29.7	21.7	3.56

## P5RF-X48K

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.
1350	80	62	49.6	39.4	2.94	47.7	39.2	3.21	45.6	39.3	3.51	43.3	38.6	3.84	40.8	40.2	4.20	38.2	37.6	4.60
	80	67	53.6	32.2	3.00	51.6	32.0	3.26	49.3	32.3	3.57	46.8	31.6	3.89	44.1	31.1	4.26	41.1	29.1	4.66
	80	72	58.8	24.9	3.06	56.5	24.8	3.33	53.9	25.3	3.64	51.0	24.7	3.96	47.6	24.2	4.32	44.3	24.6	4.72
	75	63	50.0	31.4	2.95	48.1	31.2	3.22	45.9	31.3	3.52	43.6	30.6	3.85	41.0	27.9	4.21	38.2	30.1	4.60
1500	80	62	50.7	42.1	2.95	48.8	42.9	3.23	46.7	41.9	3.52	44.3	41.3	3.85	42.0	40.5	4.22	39.5	39.1	4.63
	80	67	54.7	34.1	3.01	52.6	35.1	3.28	50.3	34.2	3.58	47.7	33.8	3.91	44.8	33.7	4.27	41.7	33.4	4.68
	80	72	59.7	26.1	3.07	57.2	27.3	3.34	54.2	26.5	3.64	51.4	26.1	3.97	48.3	26.1	4.33	44.9	26.0	4.74
	75	63	51.0	33.2	2.96	49.1	34.0	3.23	46.8	33.1	3.53	44.4	32.6	3.86	41.7	32.4	4.22	38.8	32.1	4.62
1650	80	62	51.8	45.1	2.97	49.8	45.4	3.24	47.7	44.2	3.54	45.5	43.2	3.87	43.1	41.7	4.24	40.5	40.4	4.65
	80	67	55.7	36.5	3.02	53.5	37.0	3.29	51.1	36.0	3.59	48.4	35.9	3.92	45.5	35.5	4.28	42.3	35.4	4.69
	80	72	60.0	27.9	3.07	57.6	28.4	3.35	55.0	27.6	3.65	52.1	27.5	3.98	48.9	27.2	4.34	45.5	27.2	4.75
	75	63	51.9	35.4	2.97	49.9	35.8	3.24	47.6	34.8	3.54	45.1	34.6	3.87	42.4	34.1	4.23	39.4	34.0	4.63

## P5RF-X60K

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	59.8	45.7	3.66	57.5	45.4	3.96	55.0	45.6	4.31	52.3	44.7	4.72	49.21	47.09	5.19	45.90	43.92	5.73
	80	67	65.0	37.6	3.73	62.5	37.4	4.03	59.7	37.8	4.39	56.7	37.0	4.79	53.34	36.27	5.26	49.67	33.78	5.81
	80	72	71.0	29.1	3.83	68.4	29.0	4.12	65.3	29.6	4.48	62.0	28.9	4.89	58.28	28.33	5.36	54.22	28.86	5.90
	75	63	60.6	36.8	3.68	58.3	36.5	3.98	55.7	36.8	4.33	52.9	35.9	4.73	49.75	32.75	5.21	46.31	35.32	5.75
1650	80	62	61.1	48.4	3.68	58.8	49.4	3.98	56.2	48.2	4.33	53.3	47.6	4.74	50.23	47.31	5.21	46.94	46.54	5.75
	80	67	66.2	39.6	3.75	63.7	40.8	4.05	60.8	39.7	4.41	57.7	39.2	4.81	54.22	39.13	5.28	50.45	38.92	5.82
	80	72	72.1	30.4	3.84	69.5	31.8	4.14	66.3	30.8	4.50	62.9	30.5	4.91	59.07	30.59	5.37	54.82	30.59	5.91
	75	63	61.8	38.6	3.69	59.4	39.7	3.99	56.8	38.6	4.34	53.8	38.1	4.75	50.59	37.85	5.22	47.05	37.53	5.76
1800	80	62	62.2	51.6	3.69	59.9	52.0	3.99	57.2	50.8	4.35	54.3	50.4	4.75	51.24	49.50	5.23	48.19	47.99	5.78
	80	67	67.3	42.1	3.77	64.7	42.7	4.06	61.7	41.6	4.42	58.5	41.4	4.83	54.98	41.05	5.29	51.12	41.05	5.84
	80	72	73.1	32.3	3.85	70.3	33.1	4.16	67.1	32.1	4.51	63.5	32.1	4.92	59.65	31.85	5.39	55.33	32.08	5.92
	75	63	62.8	41.1	3.71	60.4	41.5	4.00	57.7	40.4	4.36	54.6	40.1	4.76	51.33	39.65	5.24	47.72	39.54	5.77



### GENERAL TERMS OF LIMITED WARRANTY

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service within the first ten years of installation, 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.



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