

TECHNICAL SPECIFICATIONS

P8SE Series

14 SEER, Single Phase Packaged Air Conditioner

3, 4, 5 Ton Units

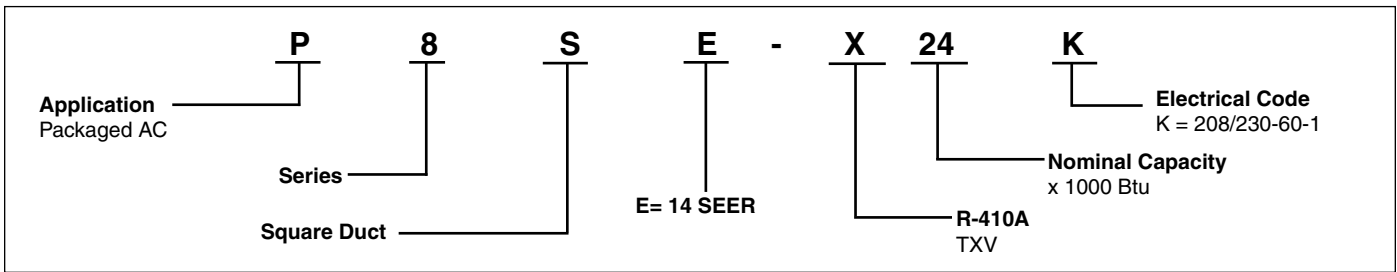
The P8 Series single packaged air conditioners are high efficiency self contained cooling units that can be installed on a roof or on a slab. The convertible unit design makes installations simple in all applications. Units are ETL and ETLc listed.



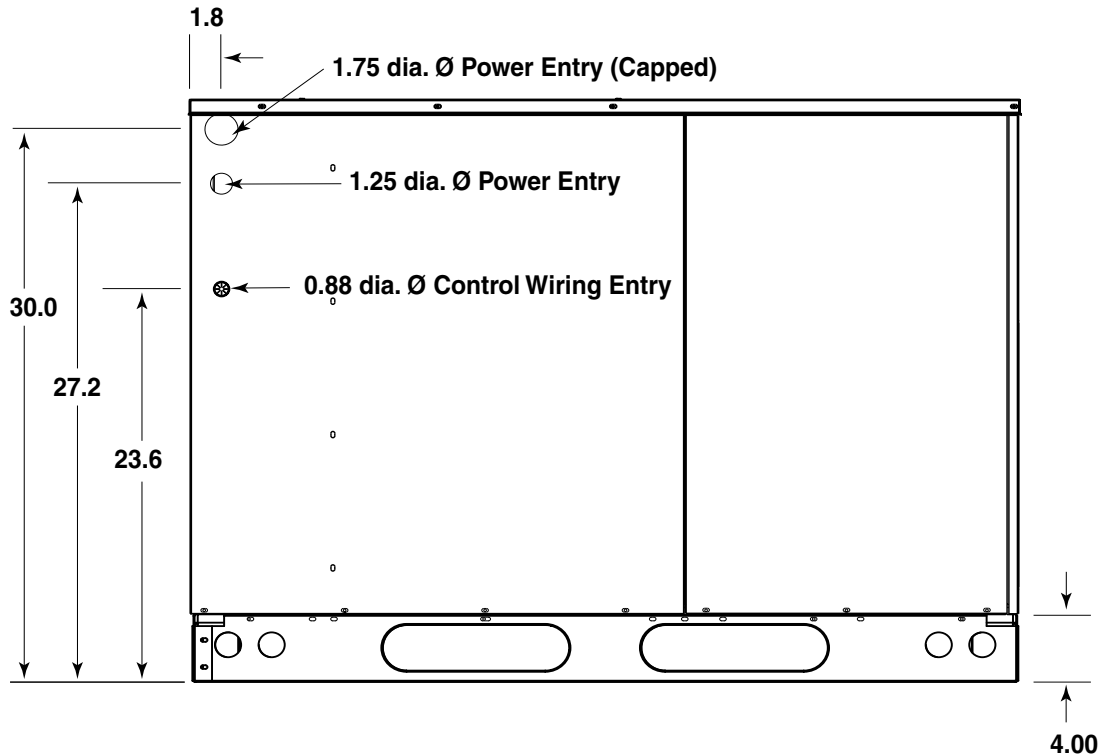
FEATURES and BENEFITS

- **State-of-the-Art Compressor:** Copeland scroll is a standard component.
- **Micro-Channel Coils:** Both indoor and outdoor coils are robustly designed for harsh conditions while reducing unit weight and refrigerant charge.
- **5-Speed ECM Blower Motor:** Provides greater airflow flexibility even in challenging duct applications.
- **Proven, Industry Standard Components:** Easier service and availability.
- **TXV Externally Equalized:** Provides precise refrigerant control under varying load conditions.
- **High and Low Pressure Switches:** Added compressor protection.
- **Liquid Line Filter Drier:** Insures clean and dry refrigeration system.
- **Externally Accessible Service Ports:** Quick access to refrigerant system without disrupting operation.
- **Compact Footprint/Low Profile:** Easy to handle and transport.
- **Convertible Air Delivery:** Horizontal or downflow to accommodate slab or rooftop application.
- **Heavy-Gauge, Full Perimeter Base Rails:** Facilitates forklift handling, crane hoisting and curb mounting.
- **Galvanized Steel Cabinet:** Polyurethane finish provides 950 hours salt spray protection.
- **Wire Guard Coated with Earth Friendly Epoxy and Mesh Hail Guard:** Will never rust and protects the coil from being damaged by balls, lawnmowers, hail etc.
- **Drain Pan:** Quickly drains away evaporator condensate.
- **Quiet Operation and Low Vibration:** Fan blade combined with custom venturi condenser fan.
- **Access to Controls and Major Components:** Easy in and out service.
- **Service Access Panels:** Allows easy access to all major components and the compressor. Designed to make servicing easier for the Contractor.
- **Corner Protectors:** Prevent injury from sharp edges of unit's top pan.
- **Easy to Install:** Electric heat strips provide up to 20 KW of heat output.
- **Accessories:** Roof curbs, title 24 compliant economizers, fresh air dampers and more.

MODEL IDENTIFICATION CODE



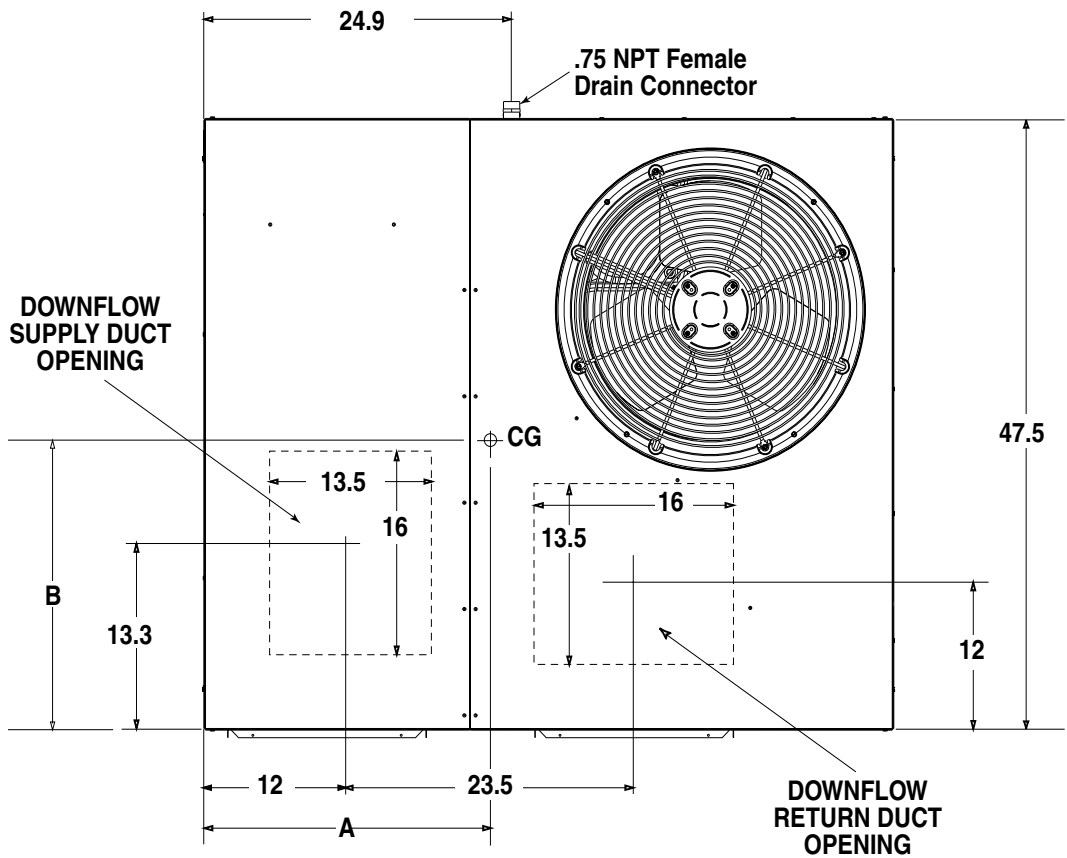
DIMENSIONS (inches and pounds)



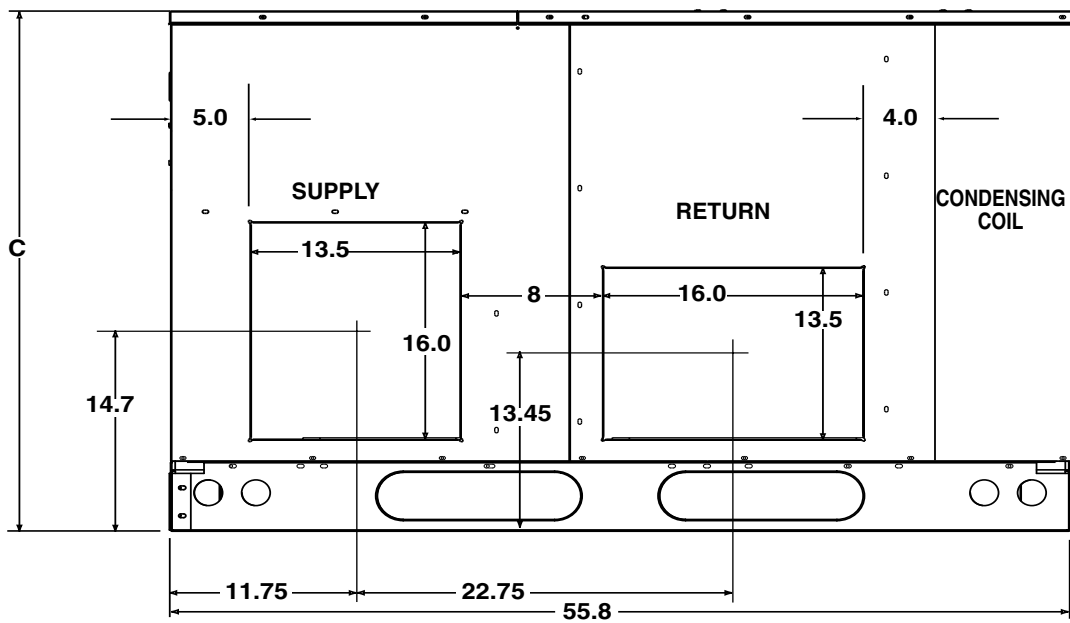
Side View

Model Number P8SE-	Net Weight	Ship Weight	Center of Gravity		Height (in inches) C	
			A	B	with base rails	without base rails
X36K	354	375	29.0	20.5	35.0	30.76
X48K	377	398	29.0	20.5	35.0	30.76
X60K	416	437	27.75	23.5	43.0	39.0

DIMENSIONS (Continued)



Top View



Back (Duct) View

SPECIFICATIONS

Model Number	P8SE		
	X36K	X48K	X60K
Performance			
Capacity -Cooling BTUH	35,000	46,500	57,000
Efficiency - SEER	14	14	14
EER (Btuh/watt)	11.2	11.5	11.0
Electrical Rating - 60 Hz			
Phase	1	1	1
Operating Voltage Range	187 - 253	187 - 253	187 - 253
Compressor Data			
Volts	208 / 230	208 / 230	208 / 230
Rated Load Amps	18.6	24.3	29.3
Lock Rotor Amps	79	117	134
Indoor Blower			
Motor - Amps	3.8	5.4	5.4
Outdoor Fan			
Motor - Amps	1.46	1.46	1.46
Refrigerant Charge - Oz.	58	61	67

BLOWER PERFORMANCE

Model Number		CFM and Temp Rise at External Static Pressure Drop - inches water column															
P8SE-		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
X36K	Tap T1**	1091	29	1031	31	995	32	929	34	871	36	774	41	704	45	629	50
	Tap T2*	1296	24	1244	25	1169	27	1153	27	1089	29	1030	31	961	33	863	37
	Tap T3	1525	21	1499	21	1448	22	1391	23	1338	24	1264	25	1221	26	1159	27
	Tap T4	1641	19	1590	20	1543	20	1489	21	1444	22	1386	23	1345	23	1285	25
	Tap T5	1791	18	1740	18	1659	19	1610	20	1555	20	1521	21	1467	22	1414	22
X48K	Tap T1**	1264	25	1183	27	1126	28	1051	30	954	33	848	37	774	41	716	44
	Tap T2	1462	22	1397	23	1322	24	1240	25	1181	27	1133	28	1006	31	888	36
	Tap T3*	1776	18	1717	18	1654	19	1573	20	1533	21	1484	21	1422	22	1369	23
	Tap T4	2127	15	2037	16	2008	16	1957	16	1865	17	1801	18	1743	18	1690	19
	Tap T5	2419	13	2355	13	2311	14	2267	14	2194	14	2150	15	2085	15	2027	16
X60K	Tap T1**	1209	26	1145	28	1106	29	1020	31	928	34	843	37	776	41	709	45
	Tap T2	1629	19	1550	20	1479	21	1435	22	1369	23	1300	24	1244	25	1139	28
	Tap T3*	1847	17	1800	18	1718	18	1668	19	1611	20	1556	20	1497	21	1449	22
	Tap T4	2128	15	2059	15	1992	16	1961	16	1887	17	1828	17	1779	18	1718	18
	Tap T5	2500	13	2444	13	2417	13	2345	13	2285	14	2228	14	2172	15	2109	15

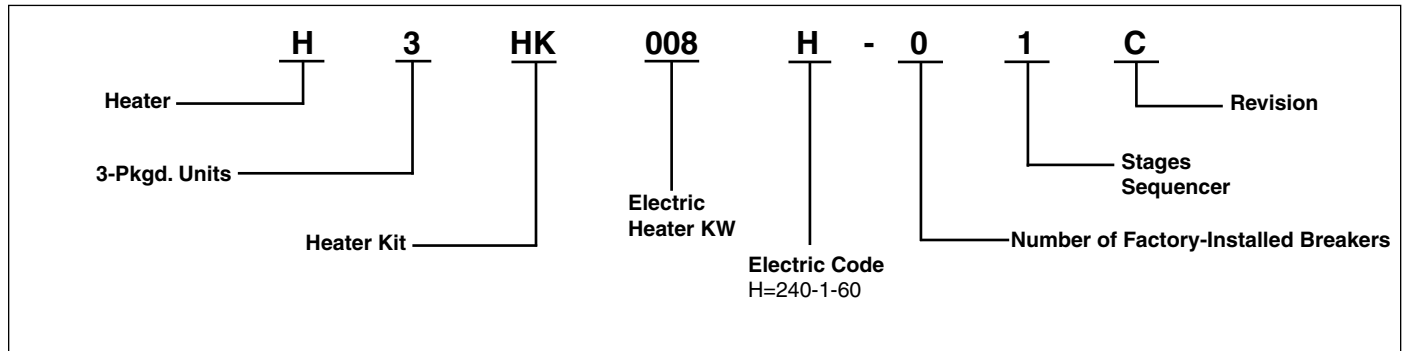
* Denotes factory set cooling speed

** Denotes factory set electric heating speed

Calculations made based on 10KW/H, airflow performance with dry coil

Shaded ares represent speeds not recommended for heating mode w/10kw heater or higher

HEATER KIT MODEL IDENTIFICATION CODE



HEATER KIT APPLICATION MATRIX

TONNAGE & PHASE	UNIT	NOMINAL KW	HEATER KIT MODEL	HEATER KIT PART NUMBER	BREAKERS REQUIRED
3 Ton, Single Phase	P8SE	5	H3HK005H-01C	917166C	None
		8	H3HK008H-01C	917167C	None
		10	H3HK010H-01C	917168C	None
		15	H3HK015H-01C	917169C	2
		15	H3HK015H-21C	917172C	None
4 Ton, Single Phase	P8SE	5	H3HK005H-01C	917166C	None
		8	H3HK008H-01C	917167C	None
		10	H3HK010H-01C	917168C	None
		15	H3HK015H-01C	917169C	2
		15	H3HK015H-21C	917172C	None
		20	H3HK020H-01C	917170C	2
5 Ton, Single Phase	P8SE	20	H3HK020H-21C	917173C	None
		5	H3HK005H-01C	917166C	None
		8	H3HK008H-01C	917167C	None
		10	H3HK010H-01C	917168C	2
		15	H3HK015H-01C	917169C	2
		15	H3HK015H-21C	917172C	None
5 Ton, Single Phase	P8SE	20	H3HK020H-01C	917170C	3
		20	H3HK020H-21C	917173C	1

ELECTRICAL DATA

P8SE SERIES - 208/230V - SINGLE PHASE MODELS									
MODEL NUMBER P8SE	HEATER INSTALLED NOMINAL KW	SINGLE CIRCUIT		MULTIPLE SUPPLY CIRCUIT OPTION					
		MCA	MOP	CIRCUIT A (COMPRESSOR, BLOWER, & FAN)		CIRCUIT B (HEATER ONLY)		CIRCUIT C (HEATER ONLY)	
				MCA	MOP	MCA	MOP	MCA	MOP
P8SE-X36K	0	28.5	45	-	-	-	-	-	-
	5	29.8	45	-	-	-	-	-	-
	8	44.3	45	28.5	45	39.6	40	-	-
	10	54.8	60	28.5	45	50	60	-	-
	15	79.8	80	28.5	45	79.8	80	-	-
P8SE-X48K	0	34.1	50	-	-	-	-	-	-
	5	34.1	50	-	-	-	-	-	-
	8	46.3	50	34.1	50	39.6	40	-	-
	10	56.8	60	34.1	50	50	60	-	-
	15	81.8	90	34.1	50	75	80	-	-
	15(3 CIR)			34.1	50	25	30	50	60
	20	106.8	110	56.8	60	50	60	-	-
20(3 CIR)			34.1	50	50	60	50	60	
P8SE-X60K	0	43.5	70	-	-	-	-	-	-
	5	43.5	70	-	-	-	-	-	-
	8	46.3	70	43.5	70	39.6	40	-	-
	10	56.8	70	43.5	70	50	60	-	-
	15	81.8	90	43.5	70	75	80	-	-
	15(3 CIR)			43.5	70	25	30	50	60
	20	106.8	110	43.5	70	100	110	-	-
20(3 CIR)			43.5	70	50	60	50	60	

ACCESSORIES

Description	Part Number
Roof Curb (8")	547830
Roof Curb (14")	547831
Roof Curb (18")	547850
Roof Curb (24")	547851
Supply/Return Transition, 16"	547834
Supply/Return Transition, 18"	547835
Concentric Diffuser, flush, 18"	547837
Concentric Diffuser, step down 16"	547838
Concentric Diffuser, step down 18"	547839
Manual Fresh Air Damper	547832
Motorized Fresh Air Damper	547840
Economizer, Downflow, Modulating w/filter (does not require filter kit)	558870
Economizer, Downflow, Modulating w/filter (does not require filter kit) CA, title 24, 3 - 4 Ton	562533
Economizer, Downflow, Modulating w/filter (does not require filter kit) CA, title 24, 5 Ton	563209
Economizer, Horizontal, Modulating, CA, title 24	562534
Power Exhaust Horizontal Economizer (special order)	547843
Hood Type Hail Guard 34" X 76" P8SE-X36K, P8SE-X48K	547846
Hood Type Hail Guard 38" X 76" P8SE-X60K	547847
Duct Smoke Detector Photo Elec	558863
Multi Signal Control	558866
Sampling Tube DST5, 2-4'	558864
Sampling Tube DST5, 4-8'	558865
Filter Rack Kit (not required with downflow economizer) P8SE-X36K, P8SE-X48K	10079911R
Filter Rack Kit (not required with downflow economizer) P8SE-X60K	10079915R
Universal Hard Start Kit	912933
Low Ambient Kit	918837
Skirt Trim Kit	919729
Heater Kit - 4-Pole single circuit adaptor	913350
Heater Kit - 6-Pole single circuit adaptor	913556
Heater Kit - Circuit breaker single phase (2-pole)	913554
Outdoor Tstat Kit	913852
Duct Adaptor, 12" Round (2 each)	913811A
Duct Adaptor, 14" Round (2 each)	913812A
CO2 Sensor Kit, Wall Mount	920317
CO2 Sensor Kit, Duct Mount	920318
Differential Enthalpy Kit	922431

COOLING EXPANDED RATINGS

P8SE-X36K

CFM	O.D.T		65°F			75°F			85°F			95°F			105°F			115°F		
	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	38.6	31.3	1.94	36.0	30.1	2.22	33.5	29.0	2.50	30.9	27.8	2.78	28.3	26.6	3.05	25.7	25.5	3.33
	80	67	41.4	26.0	1.93	38.8	24.8	2.21	36.2	23.6	2.48	33.7	22.5	2.76	31.1	21.3	3.04	28.5	20.1	3.32
	80	72	44.2	20.7	1.92	41.6	19.5	2.19	39.0	18.3	2.47	36.4	17.2	2.75	33.9	16.0	3.03	31.3	14.8	3.30
	75	63	39.2	25.3	1.94	36.7	24.2	2.21	34.1	23.0	2.49	31.5	21.8	2.77	28.9	20.7	3.05	26.4	19.5	3.33
1200	80	62	40.1	33.0	1.98	37.5	31.8	2.26	35.0	30.6	2.54	32.4	29.5	2.81	29.8	28.3	3.09	27.2	27.1	3.37
	80	67	42.9	27.6	1.97	40.3	26.5	2.24	37.7	25.3	2.52	35.2	24.1	2.80	32.6	23.0	3.08	30.0	21.8	3.36
	80	72	45.7	22.3	1.95	43.1	21.2	2.23	40.5	20.0	2.51	37.9	18.8	2.79	35.4	17.7	3.06	32.8	16.5	3.34
	75	63	40.8	27.0	1.97	38.2	25.8	2.25	35.6	24.7	2.53	33.0	23.5	2.81	30.4	22.3	3.08	27.9	21.2	3.36
1400	80	62	40.7	33.9	2.05	38.1	32.7	2.33	35.5	31.5	2.61	33.0	30.4	2.89	30.4	29.2	3.17	27.8	27.8	3.44
	80	67	43.5	28.6	2.04	40.9	27.4	2.32	38.3	26.2	2.60	35.8	25.1	2.87	33.2	23.9	3.15	30.6	22.7	3.43
	80	72	46.3	23.2	2.03	43.7	22.1	2.31	41.1	20.9	2.58	38.5	19.7	2.86	36.0	18.6	3.14	33.4	17.4	3.42
	75	63	41.3	27.9	2.05	38.8	26.8	2.33	36.2	25.6	2.60	33.6	24.4	2.88	31.0	23.3	3.16	28.5	22.1	3.44

P8SE-X48K

CFM	O.D.T		65°F			75°F			85°F			95°F			105°F			115°F		
	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.
1300	80	62	50.1	38.4	2.71	47.6	37.4	3	44.8	36.1	3.36	41.6	34.5	3.77	38.1	32.5	4.25	34.2	30.2	4.79
	80	67	53	32.3	2.72	50.5	31.3	3.02	47.6	30	3.39	44.4	28.3	3.82	40.9	26.3	4.31	37.1	24	4.86
	80	72	55.9	26.2	2.73	53.4	25.2	3.04	50.5	23.8	3.42	47.3	22.2	3.86	43.8	20.2	4.36	40	17.9	4.92
	75	63	51.3	31.7	2.61	48.3	30.8	2.9	45	29.5	3.26	41.4	28	3.67	37.5	26.1	4.14	33.2	23.9	4.68
1500	80	62	51.1	40.5	2.7	48.9	39.8	2.99	46.3	38.8	3.35	43.4	37.4	3.76	40.2	35.7	4.24	36.7	33.7	4.78
	80	67	54.9	34.4	2.71	52.6	33.7	3.01	50	32.6	3.38	47.1	31.3	3.8	43.9	29.6	4.29	40.4	27.6	4.84
	80	72	58.6	28.3	2.71	56.3	27.6	3.03	53.8	26.5	3.4	50.9	25.2	3.84	47.6	23.5	4.34	44.1	21.4	4.91
	75	63	52.9	33.1	2.6	50.2	32.5	2.89	47.2	31.5	3.24	43.9	30.3	3.66	40.3	28.7	4.13	36.3	26.8	4.67
1700	80	62	48.7	39.2	2.87	46.8	38.8	3.17	44.5	38.1	3.52	41.9	37	3.94	39	35.6	4.42	35.7	33.9	4.96
	80	67	53.3	33.1	2.88	51.4	32.7	3.19	49.1	31.9	3.55	46.5	30.9	3.98	43.5	29.5	4.47	40.3	27.7	5.02
	80	72	57.9	27	2.89	55.9	26.5	3.2	53.6	25.8	3.58	51	24.7	4.02	48.1	23.3	4.52	44.8	21.6	5.08
	75	63	51.1	31.1	2.78	48.8	30.8	3.07	46.1	30.1	3.42	43	29.2	3.83	39.7	27.9	4.31	36	26.3	4.84

P8SE-X60K

CFM	O.D.T		65°F			75°F			85°F			95°F			105°F			115°F		
	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.
1600	80	62	61.4	47.3	3.45	57.8	45.4	3.81	54.1	43.5	4.26	50.4	41.6	4.81	46.7	39.6	5.46	42.9	37.6	6.2
	80	67	66.9	41	3.53	63.3	39.1	3.88	59.6	37.2	4.33	55.9	35.2	4.88	52.1	33.3	5.52	48.4	31.3	6.26
	80	72	72.4	34.6	3.6	68.7	32.7	3.95	65	30.8	4.39	61.3	28.9	4.94	57.6	26.9	5.58	53.8	24.9	6.32
	75	63	62.1	39.7	3.45	58.5	37.9	3.81	54.9	36.1	4.27	51.3	34.3	4.82	47.7	32.4	5.48	44	30.5	6.22
1750	80	62	62.6	48.8	3.54	58.8	46.8	3.9	55.1	44.8	4.35	51.2	42.8	4.9	47.4	40.7	5.54	43.5	38.6	6.29
	80	67	68	42.5	3.61	64.3	40.5	3.96	60.5	38.4	4.41	56.7	36.4	4.96	52.9	34.3	5.6	49	32.2	6.35
	80	72	73.5	36.1	3.68	69.7	34.1	4.03	66	32.1	4.48	62.1	30	5.02	58.3	28	5.67	54.4	25.9	6.4
	75	63	62.8	40.8	3.54	59.1	38.9	3.9	55.5	37	4.35	51.7	35	4.91	48	33.1	5.56	44.2	31	6.31
1900	80	62	63.4	50	3.6	59.6	47.9	3.96	55.7	45.8	4.41	51.8	43.6	4.96	47.8	41.5	5.61	43.9	39.2	6.35
	80	67	68.9	43.6	3.67	65	41.5	4.03	61.1	39.4	4.48	57.2	37.3	5.03	53.3	35.1	5.67	49.3	32.9	6.41
	80	72	74.3	37.3	3.74	70.5	35.2	4.1	66.6	33.1	4.54	62.7	30.9	5.09	58.7	28.7	5.73	54.8	26.5	6.47
	75	63	63.2	41.6	3.6	59.5	39.6	3.96	55.7	37.6	4.42	51.9	35.5	4.97	48	33.4	5.63	44.1	31.3	6.37



GENERAL TERMS OF LIMITED WARRANTY

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

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

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