

P6SD Series

Single Packaged Air Conditioning, 13 SEER

3, 4, 5 Ton Units

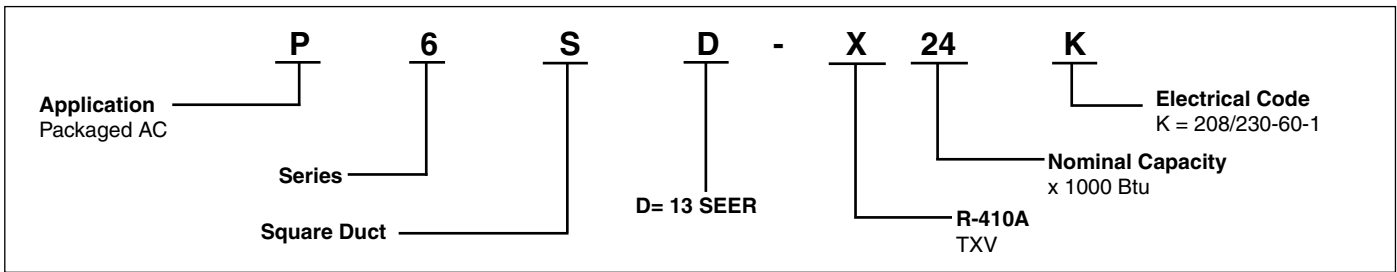
The P6 Series single packaged air conditioners are high efficiency self contained cooling units that can be installed on a roof or on a slab. The convertible unit design makes installations simple in all applications. Units are ETL and ETLc listed.



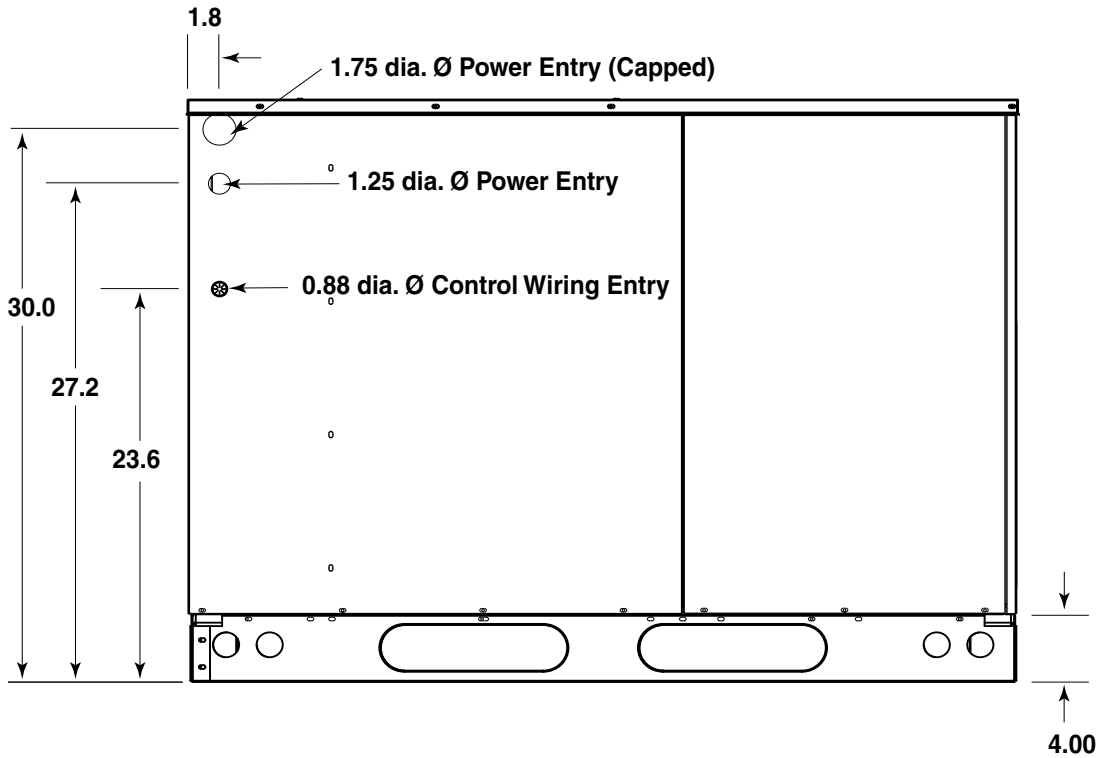
FEATURES and BENEFITS

- **State-of-the-art Copeland Scroll** compressor is standard equipment.
- **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 rooftop or horizontal application.
- **Heavy-Gauge, Full Perimeter Base Rails** Facilitates forklift handling 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.
- **Corrosion-Resistant Drain Pan** Quickly drains away evaporator condensate.
- **Quiet Operation and Low Vibration** 20" 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.
- **Easy to Install** Electric heat strip provides up to 20 KW of heat output.
- **Accessories** Roof curbs, economizers, fresh air dampers and more.

MODEL IDENTIFICATION CODE



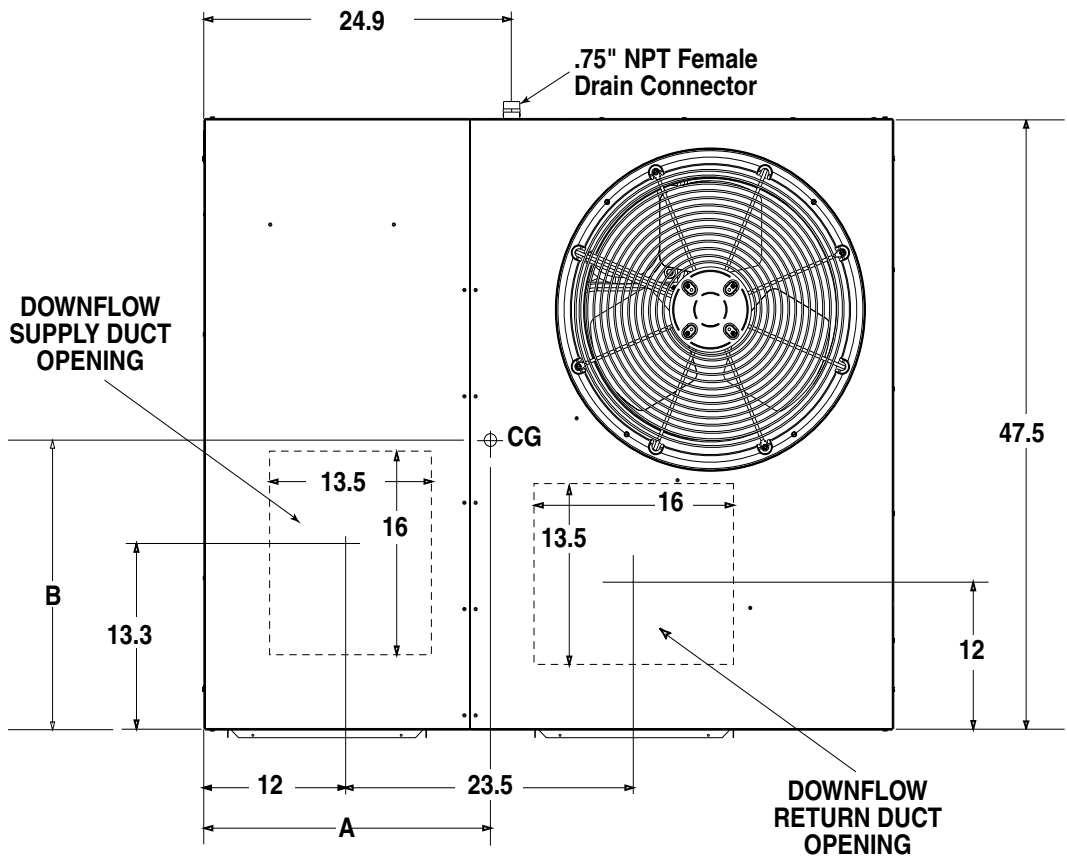
DIMENSIONS



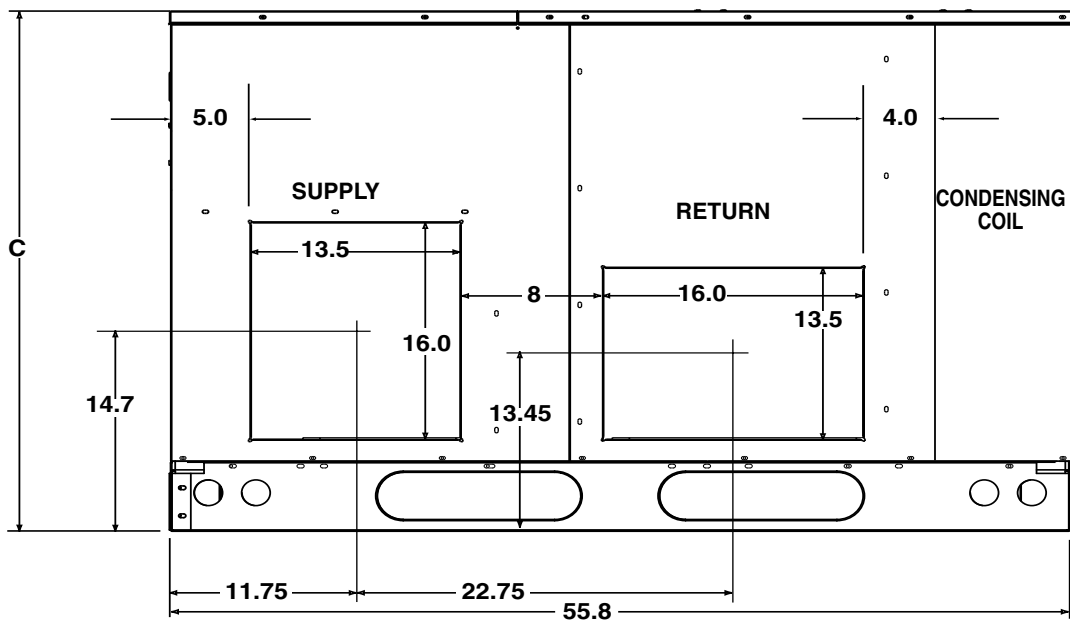
Side View

Model Number P6SD	Unit Weight	Center of Gravity		Height (in inches)
		A	B	C
X36	405	29.5	26.0	35.0
X48	415	29.5	26.5	35.0
X60	480	30.0	27.5	43.0

DIMENSIONS (Continued)



Top View



Back (Duct) View

SPECIFICATIONS

Model Number	P6SD		
	X36K	X48K	X60K
Performance			
Capacity -Cooling BTUH	34,200	46,000	58,000
Efficiency - SEER	13.3	13.0	13.3
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			
Type / No. of Speeds	DD / 3	DD / 3	Fixed Torque / 5
Motor - HP / RPM	1/4 - 1075	1/2 - 1080	3/4
Motor - Amps	1.3	3.1	6.0
Outdoor Fan			
Motor - HP / RPM	1/4 - 1100	1/4 - 1100	1/4 - 1100
Motor - Amps	1.2	1.2	1.2
Fan Diameter / CFM	20/3600	20/3800	20/3800
Refrigerant Charge - Oz.	110	168	192
Shipping Weight	415	425	490

BLOWER PERFORMANCE

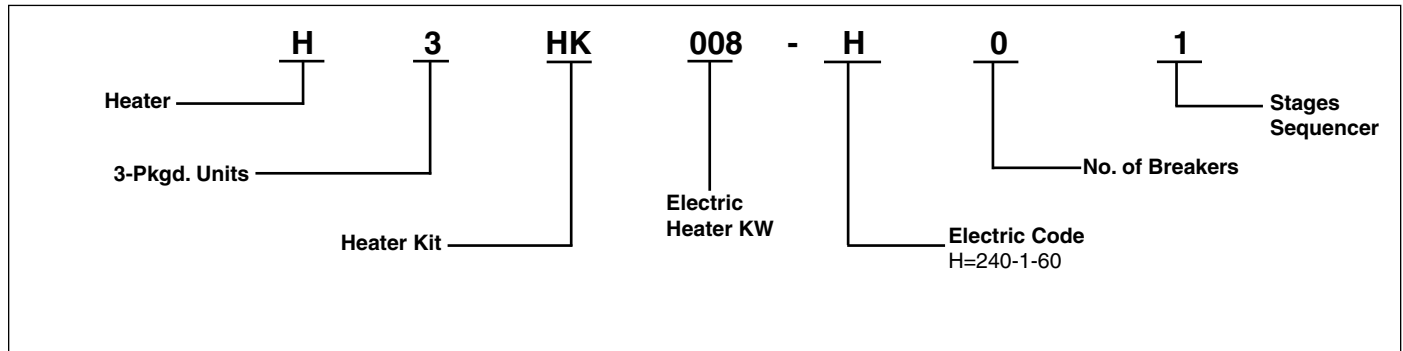
Model Number		External Static Pressure Drop - inches water column							
P6SD-		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
X36	High	1610	1562	1504	1442	1365	1295	1214	1109
	Medium	1367	1320	1271	1205	1138	1065	968	845
	* Low	1153	1102	1043	990	912	831	731	618
X48	High	2361	2278	2218	2141	2066	1976	1870	1758
	Medium	2026	1982	1935	1889	1822	1744	1660	1554
	* Low	1584	1568	1532	1489	1445	1387	1322	1236
X60	** Tap T1	1515	1450	1380	1350	1280	1250	1200	1160
	** Tap T2	1580	1520	1460	1400	1300	1280	1260	1230
	* Tap T3	1740	1690	1650	1600	1360	1500	1460	1390
	* Tap T4	1960	1910	1840	1820	1540	1740	1700	1600
	* Tap T5	2090	2050	2010	1975	1780	1900	1850	1790

* Denotes factory set cooling speed

** Denotes factory set electric heating speed

NOTE: Airflow performance is with a dry coil

MODEL IDENTIFICATION CODE



HEATER APPLICATION MATRIX

TONNAGE & PHASE	UNIT	NOMINAL KW	HEATER KIT MODEL	HEATER KIT PART NUMBER	BREAKERS REQUIRED
3 Ton, Single Phase	P6SD	5	H3HK005H-01B	917166B	None
		8	H3HK008H-01B	917167B	None
		10	H3HK010H-01B	917168B	None
		15	H3HK015H-01B	917169B	2
		15	H3HK015H-21B	917172B	None
4 Ton, Single Phase	P6SD	5	H3HK005H-01B	917166B	None
		8	H3HK008H-01B	917167B	None
		10	H3HK010H-01B	917168B	None
		15	H3HK015H-01B	917169B	2
		15	H3HK015H-21B	917172B	None
		20	H3HK020H-01B	917170B	2
5 Ton, Single Phase	P6SD	20	H3HK020H-21B	917173B	None
		5	H3HK005H-01B	917166B	None
		8	H3HK008H-01B	917167B	None
		10	H3HK010H-01B	917168B	2
		15	H3HK015H-01B	917169B	2
		15	H3HK015H-21B	917172B	None
		20	H3HK020H-01B	917170B	3
		20	H3HK020H-21B	917173B	1

ELECTRICAL DATA

P6SD SERIES - 208/230V - SINGLE PHASE MODELS									
MODEL NUMBER P6SD-	HEATER INSTALLED NOMINAL KW	SINGLE CIRCUIT		MULTIPLE SUPPLY CIRCUIT OPTION					
		MCA	MOP	CIRCUIT A (COMPRESSOR & FAN)		CIRCUIT B (BLOWER & HEATER)			
				MCA	MOP	MCA	MOP		
X36K	0	25.8	40	-	-	-	-		
	5	26.5	40	-	-	-	-		
	8	41.2	45	-	-	-	-		
	10	51.6	60	-	-	-	-		
	15	76.6	80	50.0	60	26.6	30		
X48K	0	32.9	50	-	-	-	-		
	5	32.9	50	-	-	-	-		
	8	41.2	50	-	-	-	-		
	10	51.6	60	-	-	-	-		
	15	76.6	80	51.6	50	26.6	30		
	20	101.6	110	50	50	51.6	60		
MODEL NUMBER P6SD-	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
X60K	0	43.8	70	-	-	-	-	-	-
	5	43.8	70	-	-	-	-	-	-
	8	43.8	70	-	-	-	-	-	-
	10	51.5	70	43.8	70	50	60	-	-
	15	76.5	80	51.5	70	25	30	-	-
	20	101.5	110	43.8	70	50	60	50	60

NOTE: P6SD 3 & 4 ton models have PSC motors. Since the power wires run through the heater plug, keep the blower and heater on different circuits when adding a heater kit.

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

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, 16"	547836
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 w/filter (does not require filter kit) modulating	558870
Economizer, horizontal modulating	547841
Power Exhaust, downflow economizer (special order)	547842
Power Exhaust horizontal economizer (special order)	547843
Hood Type Hail Guard 34" X 76" P6SD-X36, P6SD-X48	547846
Hood Type Hail Guard 38" X 76" P6SD -X60	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, All Downflow Applications (not required with economizer)	547885
Filter Kit (not required with economizer) P6SD-X36, P6SD-X48	547887
Filter Kit (not required with economizer) P6SD-X60	547888
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
Freezestat Kit	917108
Outdoor Tstat Kit	913852
Duct Adapter, 12" Round (2 each)	913811A
Duct Adaptor, 14" Round (2 each)	913812A
Control, CO2 sensor, wall mount	547848

COOLING EXPANDED RATINGS

P6SD-X36

CFM	O.D.T		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.
900	80	62	32.7	26.3	2.67	31.2	26.4	2.95	29.6	27.2	3.27	27.9	26.8	3.64
	80	67	35.6	21.3	2.70	33.9	20.7	2.98	32.1	20.2	3.30	30.1	19.5	3.67
	80	72	38.9	16.3	2.75	37.1	15.8	3.03	35.2	15.2	3.34	33.1	14.7	3.71
	75	63	33.1	21.0	2.68	31.5	21.1	2.95	29.8	21.0	3.28	28.0	20.6	3.64
1000	80	62	33.5	28.0	2.68	31.9	29.0	2.96	30.3	29.0	3.28	28.7	28.7	3.65
	80	67	36.2	22.5	2.71	34.4	22.0	2.99	32.6	21.4	3.31	30.7	20.9	3.67
	80	72	39.6	17.1	2.76	37.8	16.6	3.04	35.8	16.0	3.35	33.7	15.5	3.72
	75	63	33.7	23.1	2.68	32.0	22.9	2.96	30.4	22.8	3.28	28.6	22.2	3.65
1100	80	62	34.7	31.2	2.69	33.1	31.3	2.97	31.6	31.6	3.30	29.9	29.9	3.66
	80	67	37.3	24.5	2.73	35.5	23.9	3.00	33.6	23.2	3.32	31.6	22.6	3.69
	80	72	40.7	18.2	2.77	38.8	17.7	3.05	36.7	17.2	3.37	34.5	16.6	3.73
	75	63	34.8	26.0	2.70	33.1	25.6	2.97	31.3	24.9	3.29	29.4	24.2	3.66

P6SD-X48

CFM	O.D.T		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.
1250	80	62	44.1	35.7	3.45	42.2	36.0	3.84	40.0	37.1	4.27	37.8	36.6	4.77
	80	67	47.9	28.8	3.50	45.5	28.0	3.87	43.1	27.2	4.31	40.6	26.7	4.80
	80	72	52.1	21.9	3.54	49.5	21.2	3.92	46.9	20.5	4.35	44.2	19.8	4.85
	75	63	52.1	16.3	3.54	49.5	16.7	3.92	47.0	16.7	4.35	44.2	16.4	4.85
1400	80	62	45.2	38.2	3.46	43.1	39.5	3.85	41.0	39.5	4.29	39.0	39.0	4.78
	80	67	48.7	30.6	3.51	46.3	29.8	3.88	43.9	29.4	4.32	41.4	28.6	4.81
	80	72	52.9	23.1	3.54	50.4	22.4	3.93	47.7	21.6	4.36	44.9	20.9	4.86
	75	63	53.1	18.2	3.55	50.5	18.2	3.93	47.7	17.9	4.36	45.0	17.4	4.86
1550	80	62	46.2	41.8	3.47	44.2	41.9	3.86	42.2	42.2	4.30	40.1	40.1	4.80
	80	67	49.6	32.7	3.51	47.1	32.0	3.89	44.6	31.2	4.33	42.0	30.4	4.82
	80	72	53.8	24.2	3.55	51.1	23.5	3.95	48.4	22.8	4.37	45.5	22.0	4.86
	75	63	53.8	20.3	3.55	51.1	19.8	3.95	48.4	19.2	4.37	45.5	18.4	4.87

P6SD-X60

CFM	O.D.T		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.
1600	80	62	56.7	45.9	4.53	54.1	46.1	5.02	51.3	47.5	5.57	48.4	46.7	6.19
	80	67	61.2	37.4	4.62	58.1	36.4	5.09	55.0	35.3	5.65	51.7	34.2	6.26
	80	72	66.6	28.6	4.72	63.1	27.7	5.20	59.5	26.8	5.75	55.7	25.7	6.36
	75	63	57.0	36.9	4.54	54.2	37.0	5.02	51.2	36.7	5.57	48.2	36.0	6.18
1750	80	62	57.8	48.3	4.59	55.1	49.9	5.07	52.2	49.9	5.62	49.3	49.2	6.24
	80	67	62.0	39.2	4.67	58.9	38.1	5.14	55.7	37.0	5.70	52.3	35.8	6.31
	80	72	67.1	29.8	4.77	63.5	28.8	5.24	59.9	27.8	5.79	56.2	26.8	6.41
	75	63	57.8	40.1	4.59	54.9	39.8	5.07	51.9	39.1	5.62	48.8	38.1	6.23
1900	80	62	58.7	52.1	4.64	56.0	52.2	5.13	53.1	53.0	5.68	50.4	50.4	6.30
	80	67	62.7	40.9	4.72	59.6	39.8	5.20	56.3	38.7	5.75	52.8	37.5	6.36
	80	72	67.5	30.9	4.81	64.0	29.9	5.29	60.5	28.8	5.84	56.7	27.7	6.46
	75	63	58.5	43.5	4.64	55.6	42.7	5.12	52.5	41.6	5.66	49.3	40.3	6.28



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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