

TECHNICAL SPECIFICATIONS

Q8SF Series

Two Stage Heat/Two Stage Cool Single Phase

Q8SF-16 SEER, 8.2 HSPF

2 - 4 Ton Units

Cooling: 23,000 to 47,000 Btuh

Heating: 22,200 to 45,500 Btuh

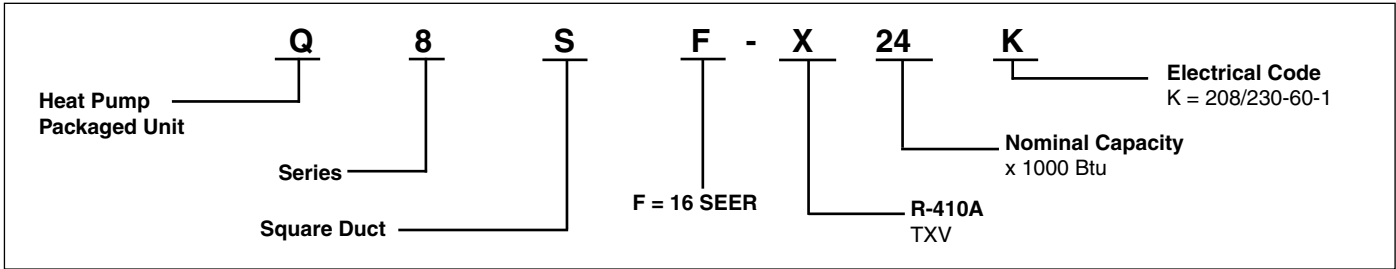
The Q8 Series single packaged heat pumps are high efficiency self contained cooling and heating units that can be installed on a roof or on a slab. The convertible unit design makes installations simple in all applications. Units are ETL and ETLc listed.



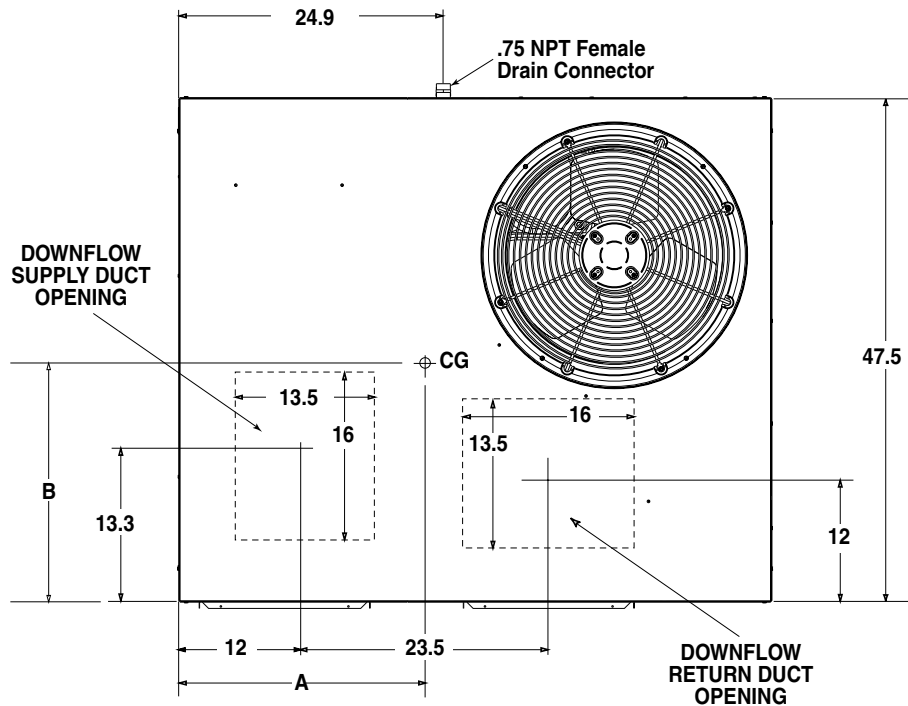
FEATURES and BENEFITS

- **Copeland Compressor:** State-of-the-art, two stage scroll compressor is standard equipment.
- **Compressor Sound Blanket:** Engineered to significantly reduce unwanted compressor noise.
- **Hi and Low Pressure Switches:** Ensure long compressor life.
- **Liquid Line Filter Drier:** Protects the compressor and is factory installed at a convenient location for service.
- **Suction Accumulator:** Protection from liquid flood back and future compressor failures.
- **Five Minute Restart Time Delay:** When the unit shuts down, a 5 minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
- **Micro-Channel Coils:** Both indoor and outdoor all aluminum coils are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability
- **Patented Hot Gas Bypass Defrost:** Ensures that the outdoor coil defrosts every time and only when necessary.
- **Energy Efficient:** Brushless DC (ECM) Blower Motor with 16 speeds.
- **Permanently Lubricated Condenser Motor:** A heavy duty ECM motor for long lasting reliability, quiet operation, and maximum efficiency. Requires no maintenance and is completely protected from rain and snow.
- **Thermostatic Expansion Valves:** Factory installed externally equalized thermostatic expansion valves provides precise refrigerant control under varying load conditions.
- **Quiet Operation and Low Vibration:** Swept-wing fan blade, designed to significantly reduce unwanted noise, combined with custom Venturi condenser fan.
- **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.
- **Designed Using Galvanized Steel:** With a polyester urethane coat finish. The finish passes 950 hours of salt spray per ASTM Std. B117.
- **Externally Accessible Service Ports:** Quick access to refrigeration system.
- **Low Voltage Transformer:** Includes 3 Amp fuse to protect low voltage circuit.
- **Corrosion-Resistant Drain Pan:** Quickly drains away evaporator condensate.
- **Heavy-Gauge, Full Perimeter Base Rails:** Facilitates forklift handling and curb mounting.
- **Convertible Air Delivery:** Horizontal or downflow to accommodate rooftop or horizontal applications.
- **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.
- **Removable Top Grille Assembly:** Allows ease of service to the fan motor.
- **Duct Flanges:** Reduce installation costs.
- **Optional Electric Heat:** Field installed 5 - 15 KW.

MODEL IDENTIFICATION CODE



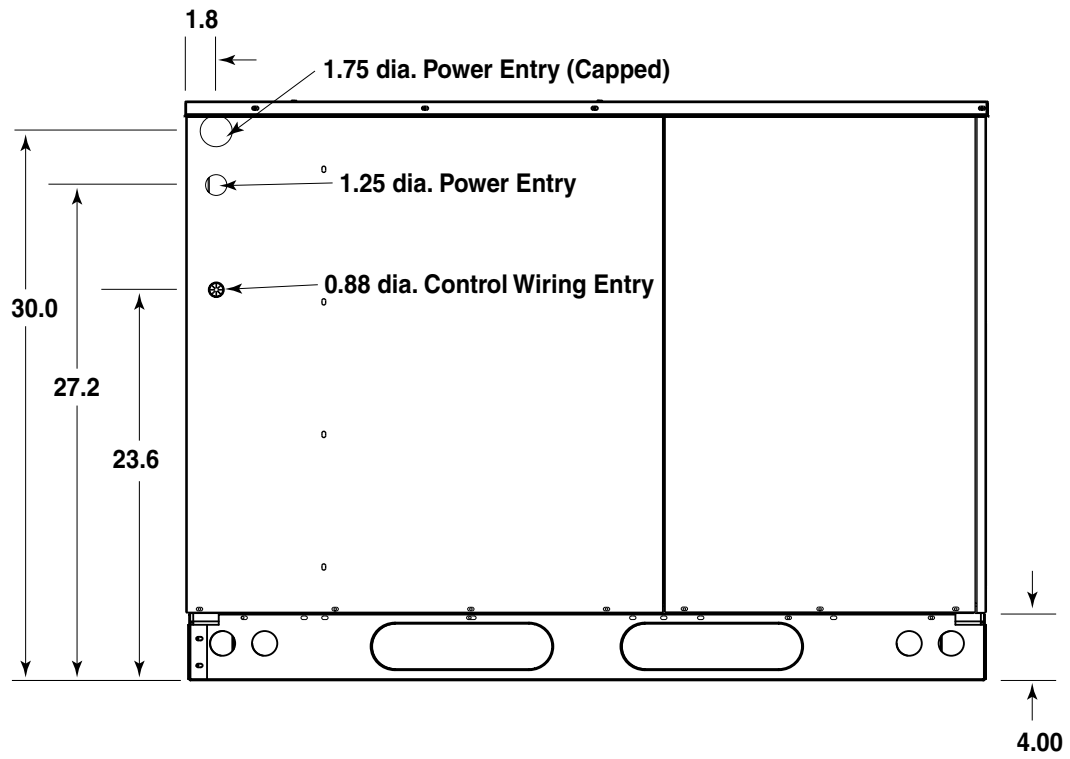
DIMENSIONS (in inches)



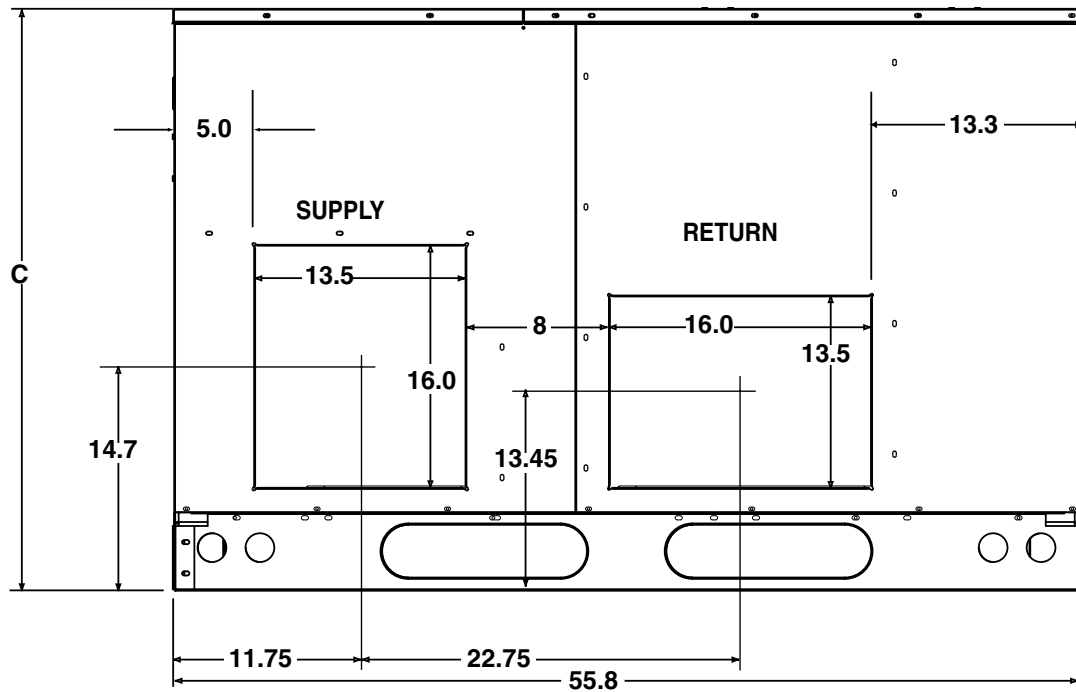
Top View

MODEL NUMBER Q8SF-	NET WEIGHT	SHIPPING WEIGHT	CENTER OF GRAVITY		HEIGHT -C- (IN INCHES)	
			-A-	-B-	WITH BASE RAILS	WITHOUT BASE RAILS
X24	397	419	28.0	25.5	39.0	35.3
X36	420	442	29.5	26.0	43.0	39.3
X48	534	556	29.5	26.0	43.0	39.3

DIMENSIONS (Continued)



Side View



Back (Duct) View

SPECIFICATIONS

Model Number	Q8SF		
	X24	X36	X48
Performance			
Capacity-Heating BTUH	22,200	34,000	45,500
Efficiency-HSPF	8.2	8.2	8.2
Capacity-Cooling BTUH	23,000	34,200	47,000
Efficiency-Seer	16	16	16
EER (Btuh/watt)	12	12	12
Electric Rating-60 Hz			
Phase	1	1	1
Operating Voltage Range	187-253	187-253	187-253
Min. Circuit Ampacity	20.8	26.7	36.8
Maximum Overcurrent Protection	30	40	50
Total Unit - Amps	19.1	23.9	31.2
Compressor Data			
Volts	208-230	208-230	208-230
Rated Load Amps	11.7	15.3	21.2
Lock Rotor Amps	58.3	83	104
Indoor Blower			
Motor - Amps	3.6	5.0	6.5
Outdoor Fan			
Motor - Amps	2.6	2.6	3.8
R-410A Charge - Oz	89	89.6	106.6
Net Weight lbs.	397	420	534
Shipping Weight lbs.	419	442	556
Sound Rating	77	76	76

ELECTRICAL DATA

Model	Heater kw	Single Circuit		Multiple Supply Circuit Option					
				Circuit A (Compressor, Blower & Fan)		Circuit B (Heater Only)		Circuit C (Heater Only)	
		MCA	MOP	MCA	MOP	MCA	MOP	MCA	MOP
Q8SF-X24K	0	20.8	30	-	-	-	-	-	-
	5	45.8	50	20.8	30	25	30	-	-
	8	60.4	70	20.8	30	39.6	40	-	-
	10	70.8	80	20.8	30	50	60	-	-
	15	95.8	100	20.8	30	75	80	-	-
	15(3cir)	95.8	100	20.8	30	50	60	25.0	30
Q8SF-X36K	0	26.7	40	-	-	-	-	-	-
	5	51.7	60	26.7	40	25	30	-	-
	8	66.3	70	26.7	40	39.6	40	-	-
	10	76.7	80	26.7	40	50	60	-	-
	15	101.7	110	26.7	40	75	80	-	-
	15(3cir)	101.7	110	26.7	40	50	60	25.0	30
Q8SF-X48K	0	36.8	50	-	-	-	-	-	-
	5	61.8	70	36.8	50	25.0	30	-	-
	8	76.4	80	36.8	50	39.6	40	-	-
	10	86.8	90	36.8	50	50.0	60	-	-
	15	111.8	125	36.8	50	75.0	80	-	-
	15(3cir)	111.8	125	36.8	50	50.0	60	25.0	30

*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.

BLOWER PERFORMANCE

MODEL	SWITCH SETTINGS 0 = OFF, 1 = ON				COOLING OR HEATING AIRFLOW (CFM)															
					0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
	1/5	2/6	3/7	4/8	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE	CFM	TEMP RISE
X24K	0	0	0	0	840	38	745	42	655	48	590	54	520	61	430	73	345	92	320	99
	1	0	0	0	920	34	850	37	780	41	695	45	615	51	540	59	465	68	420	75
	*0	1	0	0	1025	31	960	33	890	35	800	39	710	44	645	49	575	55	535	59
	1	1	0	0	1110	28	1050	30	990	32	900	35	805	39	745	42	685	46	610	52
	0	0	1	0	1165	27	1120	28	1070	30	975	32	875	36	815	39	750	42	715	44
	1	0	1	0	1235	26	1190	27	1140	28	1070	30	995	32	905	35	820	39	800	39
	**0	1	1	0	1335	24	1285	25	1235	26	1170	27	1110	28	1010	31	910	35	850	37
	1	1	1	0	1400	23	1355	23	1310	24	1250	25	1185	27	1090	29	990	32	925	34
	0	0	0	1	1455	22	1410	22	1360	23	1295	24	1235	26	1140	28	1045	30	985	32
	1	0	0	1	1515	21	1465	22	1420	22	1355	23	1290	24	1215	26	1145	28	1055	30
	0	1	0	1	1590	20	1540	21	1490	21	1440	22	1390	23	1325	24	1260	25	1160	27
	1	1	0	1	1640	19	1593	20	1545	20	1500	21	1450	22	1385	23	1320	24	1220	26
	0	0	1	1	1690	19	1645	19	1600	20	1550	20	1500	21	1440	22	1375	23	1280	25
	1	0	1	1	1740	18	1695	19	1645	19	1600	20	1555	20	1495	21	1435	22	1360	23
	0	1	1	1	1805	18	1760	18	1710	18	1665	19	1615	20	1555	20	1500	21	1440	22
1	1	1	1	1850	17	1800	18	1755	18	1705	19	1660	19	1610	20	1555	20	1495	21	
X36K	0	0	0	0	700	45	625	51	545	58	475	67	400	79	370	85	343	92	-	-
	1	0	0	0	824	38	760	42	695	45	620	51	550	57	500	63	450	70	395	80
	0	1	0	0	1005	31	935	34	860	37	790	40	720	44	660	48	605	52	510	62
	1	1	0	0	1130	28	1055	30	975	32	905	35	835	38	775	41	710	44	605	52
	**0	0	1	0	1285	25	1230	26	1175	27	1090	29	1000	32	955	33	910	35	755	42
	*1	0	1	0	1420	22	1400	23	1375	23	1335	24	1295	24	1270	25	1250	25	900	35
	0	1	1	0	1540	21	1480	21	1420	22	1370	23	1320	24	1250	25	1180	27	1025	31
	1	1	1	0	1635	19	1585	20	1530	21	1470	21	1410	22	1350	23	1290	24	1130	28
	0	0	0	1	1750	18	1695	19	1640	19	1580	20	1520	21	1460	22	1405	22	1270	25
	1	0	0	1	1855	17	1805	18	1755	18	1700	19	1645	19	1595	20	1540	21	1400	23
	0	1	0	1	1955	16	1910	17	1860	17	1800	18	1745	18	1695	19	1640	19	1515	21
	1	1	0	1	2020	16	1973	16	1925	16	1870	17	1815	17	1770	18	1720	18	1615	20
	0	0	1	1	2100	15	2055	15	2010	16	1960	16	1905	17	1860	17	1810	17	1705	19
	1	0	1	1	2175	15	2125	15	2075	15	2025	16	1975	16	1920	16	1865	17	1760	18
	0	1	1	1	2270	14	2205	14	2140	15	2085	15	2030	16	1985	16	1945	16	1835	17
1	1	1	1	2320	14	2265	14	2210	14	2160	15	2110	15	2060	15	2015	16	1915	16	
X48K	0	0	0	0	900	35	775	41	645	49	520	61	400	79	-	-	-	-	-	-
	1	0	0	0	1010	31	895	35	785	40	670	47	555	57	-	-	-	-	-	-
	0	1	0	0	1135	28	1055	30	975	32	860	37	745	42	675	47	605	52	515	61
	1	1	0	0	1280	25	1184	27	1090	29	1000	32	910	35	830	38	750	42	610	52
	**0	0	1	0	1395	23	1325	24	1250	25	1160	27	1065	30	1000	32	935	34	780	41
	1	0	1	0	1525	21	1445	22	1365	23	1290	24	1215	26	1130	28	1045	30	915	35
	0	1	1	0	1630	19	1555	20	1480	21	1420	22	1360	23	1290	24	1215	26	1085	29
	*1	1	1	0	1725	18	1665	19	1605	20	1535	21	1470	21	1400	23	1330	24	1180	27
	0	0	0	1	1825	17	1765	18	1710	18	1650	19	1595	20	1535	21	1470	21	1345	23
	1	0	0	1	1880	17	1830	17	1780	18	1725	18	1670	19	1615	20	1555	20	1440	22
	0	1	0	1	1975	16	1920	16	1865	17	1820	17	1770	18	1725	18	1680	19	1560	20
	1	1	0	1	2065	15	2005	16	1940	16	1895	17	1845	17	1790	18	1740	18	1635	19
	0	0	1	1	2120	15	2070	15	2025	16	1970	16	1915	16	1875	17	1830	17	1730	18
	1	0	1	1	2210	14	2155	15	2095	15	2040	15	1985	16	1945	16	1905	17	1805	18
	0	1	1	1	2230	14	2190	14	2150	15	2100	15	2045	15	2000	16	1950	16	1860	17
1	1	1	1	2355	13	2290	14	2220	14	2185	14	2145	15	2100	15	2050	15	1955	16	

Compressor high and low heating and cooling airflows are the Same. Compressor low heating and cooling airflows are approx. 70% of high values.

* Denotes factory set cooling speed

** Denotes factory set electric heating speed

Emergency heat has only high speed settings.

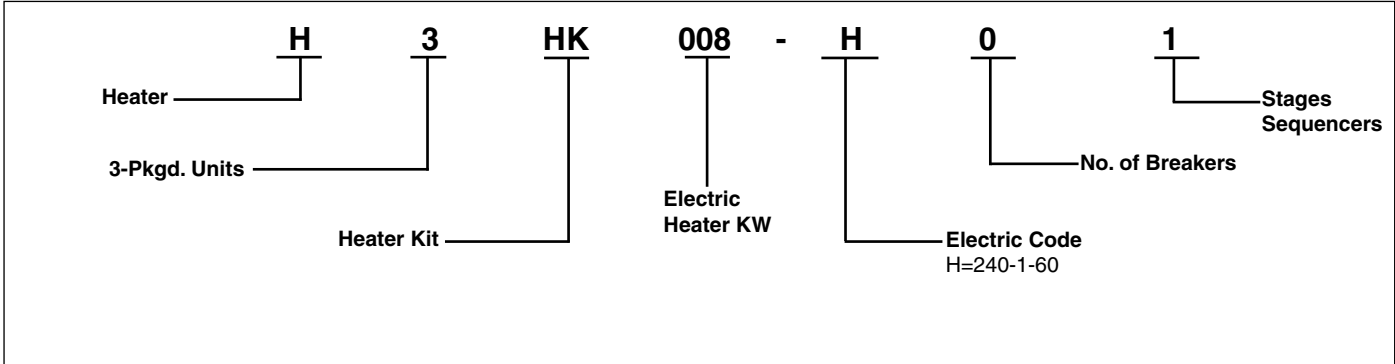
Heat rise calculated based on 10KW of electric heat

HEATER APPLICATION MATRIX

Model Number	H3HK-005H-01C	H3HK-008H-01C	H3HK-010H-01C	H3HK-015H-01C	H3HK-020H-01C	H3HK-015H-21C
	917166C	917167C	917168C	917169C	917170C	917172C
Q8SF-X24	X	X(2)	X(2)	X(2)	NA	X
Q8SF-X36	X	X(2)	X(2)	X(2)	NA	X
Q8SF-X48	X(2)	X(2)	X(2)	X(3)	X(3)	X(1)

NA = Not Applicable.
() = Number of internal circuit breaker kits required.
X = Branch circuit protection only

MODEL IDENTIFICATION CODE



Q8SF 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, modulating w/filter (does not require filter kit), CA title 24	563209
Economizer, horizontal, modulating, CA title 24	562534
Power Exhaust for use with downflow economizer 208-230/1/60	547842
Power Exhaust for use with horizontal economizer 208-230/1/60	547843
Power Exhaust for use with downflow economizer (208/230 3 Phase)	555578
Power Exhaust, for use with horizontal economizer (208/230 3 Phase)	555580
Power Exhaust, for use with downflow economizer (460V 3 Phase)	555579
Power Exhaust, for use with horizontal economizer (460V 3 Phase)	555581
Duct Smoke Detector Photo Elec	558863
Multi Signal Control	558866
Sampling Tube 2 - 4 ft.	558864
Sampling Tube 4 - 8 ft.	558865
Universal Hard Start Kit	912933
Low Ambient Kit	918837
Outdoor Thermostat Kit	913852
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
Duct Adapter 12" Round (2 each)	913811A
Duct Adapter 14" Round (2 each)	913812A
Control, CO2 Sensor, Wall Mount	920317
Control, CO2 Sensor, Duct Mount	920318
Differential Enthalpy Kit	922431

EXPANDED RATINGS

COOLING

Q8SF-X24K High Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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.
790	80	62	25.6	21.5	1.32	24.1	20.6	1.44	22.5	19.7	1.62	20.7	18.7	1.85	18.7	17.8	2.13	16.5	16.5	2.46
	80	67	27.8	18.4	1.33	26.3	17.5	1.45	24.7	16.6	1.63	22.8	15.6	1.86	20.8	14.7	2.14	18.6	13.8	2.47
	80	72	30.3	15.3	1.34	28.9	14.4	1.46	27.2	13.5	1.64	25.4	12.5	1.87	23.4	11.6	2.15	21.2	10.7	2.49
	75	63	25.6	17.8	1.33	24.1	16.8	1.45	22.5	15.9	1.63	20.6	15.0	1.86	18.6	14.1	2.14	16.4	13.2	2.48
890	80	62	25.9	22.4	1.32	24.4	21.4	1.45	22.8	20.5	1.62	20.9	19.6	1.85	18.9	18.7	2.13	16.7	16.7	2.47
	80	67	28.0	19.3	1.33	26.6	18.3	1.46	24.9	17.4	1.63	23.1	16.5	1.86	21.1	15.6	2.14	18.9	14.7	2.48
	80	72	30.6	16.2	1.34	29.1	15.2	1.47	27.5	14.3	1.64	25.7	13.4	1.87	23.7	12.5	2.15	21.5	11.6	2.49
	75	63	25.8	18.6	1.34	24.4	17.7	1.46	22.7	16.8	1.63	20.9	15.9	1.86	18.9	15.0	2.15	16.7	14.0	2.48
990	80	62	27.0	23.2	1.35	25.5	22.3	1.47	23.9	21.4	1.65	22.1	20.5	1.88	20.1	19.6	2.16	17.9	17.9	2.49
	80	67	29.2	20.1	1.36	27.7	19.2	1.48	26.1	18.3	1.66	24.2	17.4	1.89	22.2	16.5	2.17	20.0	15.5	2.5
	80	72	31.7	17.0	1.37	30.3	16.1	1.49	28.6	15.2	1.67	26.8	14.3	1.9	24.8	13.4	2.18	22.6	12.4	2.52
	75	63	27.0	19.5	1.36	25.5	18.6	1.48	23.9	17.7	1.66	22.0	16.7	1.89	20.0	15.8	2.17	17.8	14.9	2.51

Q8SF-X24K Low Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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	18.0	17.2	0.99	17.4	16.9	1.10	16.7	16.5	1.22	15.8	15.8	1.39	14.9	14.9	1.60	14.0	14.0	1.81
	80	67	19.6	14.6	0.97	18.9	14.3	1.08	18.0	13.9	1.20	17.0	13.5	1.38	15.8	13.0	1.60	14.7	12.5	1.81
	80	72	22.1	11.9	0.78	20.8	11.4	1.07	19.9	11.1	1.19	18.7	10.7	1.36	17.5	10.2	1.59	16.2	9.8	1.80
	75	63	18.2	16.8	0.98	17.6	16.5	1.09	16.9	16.1	1.22	15.9	15.5	0.98	14.9	14.9	1.00	14.0	14.0	1.00
750	80	62	18.9	18.9	1.03	18.3	18.3	1.14	17.6	17.6	1.26	16.8	16.8	1.44	15.8	15.8	1.65	14.8	14.8	1.86
	80	67	20.2	16.3	1.01	19.4	15.9	1.13	18.5	15.5	1.25	17.5	15.1	1.43	16.2	14.5	1.65	15.0	14.0	1.86
	80	72	22.7	13.0	0.83	21.3	12.5	1.12	20.2	12.1	1.24	19.1	11.7	1.41	17.7	11.2	1.64	16.4	10.7	1.86
	75	63	19.0	18.7	1.03	18.4	18.3	1.14	17.6	17.6	1.26	16.8	16.8	1.44	15.8	15.8	1.65	14.8	14.8	1.86
900	80	62	19.7	19.7	1.08	19.1	19.1	1.19	18.3	18.3	1.31	17.4	17.4	1.48	16.4	16.4	1.70	15.3	15.3	1.91
	80	67	20.8	17.9	0.97	19.8	17.4	1.18	18.8	17.0	1.31	17.7	16.5	1.48	16.5	15.8	1.70	15.3	15.1	1.91
	80	72	23.0	14.0	0.88	21.5	13.4	1.17	20.5	13.0	1.29	19.3	12.6	1.47	17.9	12.1	1.69	16.5	11.6	1.91
	75	63	19.7	19.7	1.08	19.1	19.1	1.19	18.3	18.3	1.31	17.4	17.4	1.48	16.4	16.4	1.70	15.3	15.3	1.91

Q8SF-X36K High Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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.
1045	80	62	36.2	30.2	2.06	34.1	29.0	2.20	31.8	27.8	2.41	29.3	26.5	2.68	26.6	25.1	3.02	23.7	23.6	3.43
	80	67	40.8	25.8	2.09	38.6	24.6	2.20	36.2	23.3	2.38	33.5	22.0	2.63	30.7	20.5	2.94	27.7	19.0	3.32
	80	72	44.6	21.6	2.10	42.3	20.3	2.18	39.8	19.0	2.34	37.0	17.6	2.56	34.1	16.1	2.84	30.9	14.5	3.20
	75	63	36.9	23.6	3.04	35.9	23.8	2.55	34.8	23.9	2.14	33.4	23.9	1.79	31.8	23.8	1.51	30.0	23.7	1.29
1245	80	62	38.6	33.5	2.06	36.1	32.4	2.23	33.3	31.1	2.45	30.3	29.8	2.75	27.2	27.2	3.11	23.8	23.8	3.55
	80	67	42.9	28.3	2.18	40.3	27.1	2.31	37.4	25.8	2.52	34.3	24.4	2.79	31.0	23.0	3.12	27.5	21.4	3.53
	80	72	46.5	23.3	2.28	43.7	22.0	2.38	40.7	20.6	2.56	37.5	19.2	2.80	34.1	17.7	3.11	30.5	16.1	3.49
	75	63	37.9	24.3	3.60	36.4	24.5	3.14	34.8	24.6	2.75	33.0	24.6	2.42	30.9	24.5	2.17	28.7	24.4	1.97
1445	80	62	41.8	36.2	1.94	38.8	35.0	2.13	35.5	33.7	2.38	32.1	32.1	2.70	28.5	28.5	3.08	24.6	24.6	3.54
	80	67	45.8	30.2	2.14	42.6	28.9	2.30	39.3	27.6	2.53	35.8	26.2	2.82	32.0	24.7	3.18	28.1	23.2	3.61
	80	72	49.0	24.3	2.33	45.8	23.0	2.46	42.3	21.6	2.66	38.6	20.2	2.92	34.8	18.7	3.25	30.7	17.0	3.65
	75	63	39.6	24.4	4.05	37.7	24.5	3.61	35.6	24.6	3.24	33.3	24.6	2.94	30.8	24.5	2.70	28.1	24.3	2.53

EXPANDED RATINGS Continued

COOLING

Q8SF-X36K Low Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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.
700	80	62	18.6	18.5	1.02	18.0	18.0	1.13	17.3	17.3	1.25	16.5	16.5	1.42	15.5	15.5	1.64	14.5	14.5	1.85
	80	67	20.0	15.7	1.01	19.3	15.4	1.12	18.4	15.0	1.24	17.3	14.6	1.41	16.1	14.0	1.63	14.9	13.5	1.84
	80	72	22.5	12.7	0.82	21.2	12.2	1.10	20.2	11.8	1.22	19.0	11.4	1.40	17.6	10.9	1.62	16.3	10.4	1.84
	75	63	18.7	18.1	1.02	18.1	17.8	1.12	17.4	17.3	1.25	16.5	16.5	1.42	15.5	15.5	1.64	14.5	14.5	1.85
850	80	62	19.5	19.5	1.06	18.9	18.9	1.17	18.1	18.1	1.29	17.3	17.3	1.47	16.2	16.2	1.68	15.1	15.1	1.90
	80	67	20.6	17.4	0.98	19.7	16.9	1.16	18.7	16.5	1.29	17.7	16.0	1.46	16.4	15.4	1.68	15.2	14.8	1.90
	80	72	22.9	13.7	0.87	21.4	13.1	1.15	20.4	12.7	1.27	19.2	12.3	1.45	17.9	11.8	1.67	16.5	11.3	1.89
	75	63	19.5	19.5	1.06	18.9	18.9	1.17	18.1	18.1	1.29	17.3	17.3	1.47	16.2	16.2	1.68	15.1	15.1	1.90
1000	80	62	20.3	20.3	1.05	19.5	19.5	1.22	18.7	18.7	1.34	17.7	17.7	1.52	16.7	16.7	1.73	15.5	15.5	1.95
	80	67	21.2	18.9	0.95	19.9	18.3	1.22	19.0	17.8	1.34	17.9	17.3	1.51	16.7	16.5	1.73	15.5	15.5	1.95
	80	72	23.1	14.6	0.92	21.7	14.0	1.20	20.6	13.6	1.33	19.4	13.2	1.50	18.0	12.6	1.72	16.6	12.1	1.94
	75	63	20.4	20.4	1.05	19.5	19.5	1.22	18.7	18.7	1.34	17.7	17.7	1.52	16.7	16.7	1.73	15.5	15.5	1.95

Q8SF-X48K High Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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.
1440	80	62	51.3	44.6	2.35	48.8	42.0	2.94	46.0	39.8	3.46	43.0	38.0	3.92	39.6	36.6	4.32	36.0	35.5	4.65
	80	67	56.2	39.8	1.83	53.2	36.1	2.72	50.0	32.7	3.54	46.5	29.7	4.31	42.7	27.1	5.01	38.6	24.8	5.65
	80	72	61.9	33.2	1.83	58.5	28.2	3.02	54.8	23.7	4.16	50.9	19.5	5.22	46.6	15.6	6.23	42.1	12.2	7.17
	75	63	56.2	27.2	5.14	52.3	27.7	4.84	48.2	28.5	4.48	43.7	29.7	4.05	39.0	31.3	3.57	33.9	33.3	3.02
1640	80	62	53.0	44.8	3.00	50.4	43.3	3.34	47.5	42.1	3.61	44.4	41.3	3.82	40.9	40.9	3.96	37.2	37.2	4.04
	80	67	58.0	41.6	2.03	55.0	38.9	2.67	51.6	36.5	3.24	48.1	34.6	3.76	44.2	32.9	4.21	40.0	31.7	4.59
	80	72	63.8	36.5	1.59	60.3	32.5	2.53	56.6	29.0	3.41	52.5	25.8	4.22	48.2	23.0	4.98	43.6	20.6	5.67
	75	63	58.4	24.7	6.53	54.4	26.2	5.97	50.2	28.1	5.36	45.6	30.3	4.68	40.8	32.9	3.95	35.7	35.7	3.15
1840	80	62	53.3	40.7	4.35	50.7	40.2	4.43	47.7	40.0	4.45	44.5	40.2	4.40	41.0	40.8	4.30	37.2	37.2	4.13
	80	67	58.5	39.0	2.93	55.4	37.3	3.31	52.0	35.9	3.64	48.3	35.0	3.90	44.3	34.4	4.09	40.1	34.1	4.23
	80	72	64.4	35.3	2.04	60.9	32.4	2.73	57.0	29.9	3.35	52.9	27.7	3.92	48.5	25.9	4.42	43.8	24.5	4.86
	75	63	59.3	17.8	8.61	55.3	20.3	7.80	50.9	23.2	6.94	46.3	26.5	6.01	41.4	30.1	5.02	36.2	34.1	3.96

Q8SF-X48K Low Speed

O.D.T.			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	EDB	EWB	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.
950	80	62	46.03	37.08	2.74	44.53	36.29	3.02	42.69	35.30	3.33	40.62	34.21	3.68	38.48	33.09	4.08	36.26	31.94	4.55
	80	67	50.50	32.26	2.78	48.71	31.41	3.06	46.62	30.44	3.37	44.32	29.39	3.72	41.92	28.31	4.13	39.44	27.22	4.61
	80	72	55.03	27.13	2.82	52.99	26.25	3.10	50.67	25.27	3.41	48.16	24.24	3.77	45.59	23.20	4.19	42.91	22.14	4.68
	75	63	46.90	36.15	2.75	45.29	35.33	3.02	43.36	34.35	3.33	41.25	33.28	3.68	39.07	32.16	4.09	36.85	31.03	4.56
1100	80	62	47.90	40.01	2.76	46.20	39.12	3.03	44.22	38.09	3.34	42.05	36.96	3.69	39.76	35.78	4.10	37.45	34.58	4.57
	80	67	52.18	34.42	2.80	50.23	33.53	3.07	48.01	32.54	3.38	45.55	31.46	3.74	42.98	30.35	4.15	40.36	29.24	4.63
	80	72	56.72	28.47	2.83	54.56	27.58	3.11	52.09	26.59	3.43	49.45	25.54	3.79	46.65	24.45	4.21	43.82	23.37	4.69
	75	63	48.63	38.93	2.76	46.90	38.04	3.04	44.87	37.01	3.35	42.68	35.90	3.70	40.37	34.73	4.11	38.00	33.55	4.58
1250	80	62	49.33	42.73	2.77	47.56	41.81	3.05	45.47	40.73	3.36	43.21	39.56	3.71	40.82	38.32	4.12	38.43	37.03	4.59
	80	67	53.45	36.47	2.81	51.39	35.57	3.08	49.01	34.54	3.39	46.45	33.45	3.75	43.82	32.28	4.16	41.16	31.10	4.64
	80	72	58.02	29.74	2.84	55.71	28.82	3.12	53.13	27.82	3.44	50.39	26.77	3.80	47.49	25.67	4.22	44.57	24.60	4.71
	75	63	50.07	41.52	2.78	48.22	40.59	3.05	46.08	39.52	3.36	43.78	38.37	3.72	41.39	37.17	4.13	38.91	35.92	4.60

EXPANDED RATINGS

HEATING

Q8SF-X24K High Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
790	60	10.2	2.35	1.18	12.7	2.72	1.24	13.8	2.87	1.27	17.5	3.37	1.36	21.2	3.86	1.46	23.8	4.20	1.52	24.9	4.34	1.55	28.6	4.80	1.64
	70	8.3	1.80	1.34	10.8	2.17	1.40	11.9	2.32	1.43	15.6	2.83	1.52	19.3	3.32	1.62	21.9	3.66	1.68	23.0	3.80	1.71	26.7	4.27	1.80
	80	6.3	1.25	1.50	8.9	1.62	1.57	10.0	1.77	1.59	13.6	2.29	1.69	17.3	2.78	1.78	19.9	3.12	1.84	21.1	3.27	1.87	24.8	3.74	1.96
890	60	10.2	2.41	1.19	12.8	2.77	1.26	13.9	2.92	1.29	17.5	3.43	1.38	21.2	3.91	1.47	23.8	4.25	1.54	24.9	4.39	1.56	28.7	4.85	1.66
	70	8.3	1.85	1.35	10.8	2.22	1.42	11.9	2.37	1.45	15.6	2.88	1.54	19.3	3.38	1.63	21.9	3.71	1.70	23.0	3.85	1.73	26.8	4.32	1.82
	80	6.4	1.30	1.52	8.9	1.67	1.58	10.0	1.83	1.61	13.7	2.34	1.70	17.4	2.84	1.79	20.0	3.18	1.86	21.1	3.32	1.89	24.8	3.79	1.98
990	60	10.3	2.46	1.21	12.8	2.83	1.27	13.9	2.98	1.30	17.6	3.49	1.39	21.3	3.97	1.49	23.9	4.31	1.55	25.0	4.45	1.58	28.7	4.91	1.67
	70	8.3	1.91	1.37	10.9	2.28	1.43	12.0	2.43	1.46	15.6	2.94	1.56	19.3	3.44	1.65	21.9	3.77	1.71	23.1	3.91	1.74	26.8	4.38	1.83
	80	6.4	1.36	1.53	9.0	1.73	1.60	10.1	1.89	1.62	13.7	2.40	1.72	17.4	2.90	1.81	20.0	3.24	1.87	21.1	3.38	1.90	24.9	3.85	1.99

Q8SF-X24K Low Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
600	60	1.6	1.12	7.39	7.9	2.10	1.11	8.8	2.34	1.10	11.6	3.12	1.09	14.4	3.91	1.08	16.4	4.48	1.07	17.3	4.73	1.07	20.1	5.56	1.06
	70	1.6	1.00	6.80	7.3	2.12	1.01	8.1	2.33	1.01	10.6	3.03	1.03	13.2	3.70	1.04	15.0	4.16	1.06	15.7	4.35	1.06	18.3	4.99	1.08
	80	1.6	0.90	6.06	6.5	2.08	0.92	7.2	2.28	0.93	9.5	2.93	0.95	11.8	3.56	0.97	13.4	3.98	0.99	14.1	4.15	1.00	16.4	4.72	1.02
750	60	1.5	1.18	7.51	8.1	2.02	1.18	9.0	2.24	1.17	11.9	3.00	1.16	14.8	3.78	1.15	16.8	4.33	1.14	17.7	4.57	1.14	20.6	5.38	1.12
	70	1.5	1.08	6.98	7.5	2.02	1.09	8.3	2.22	1.09	10.9	2.89	1.11	13.6	3.55	1.12	15.4	4.00	1.13	16.2	4.20	1.13	18.8	4.82	1.14
	80	1.5	0.98	6.28	6.8	1.99	1.00	7.5	2.18	1.01	9.9	2.80	1.03	12.3	3.39	1.06	14.0	3.78	1.08	14.7	3.95	1.09	17.1	4.47	1.12
900	60	1.5	1.25	7.81	8.4	1.98	1.24	9.3	2.20	1.24	12.2	2.94	1.22	15.1	3.70	1.20	17.2	4.25	1.19	18.1	4.48	1.18	21.0	5.29	1.16
	70	1.5	1.14	7.15	7.7	1.96	1.15	8.5	2.16	1.15	11.2	2.82	1.17	13.9	3.47	1.18	15.9	3.91	1.19	16.7	4.10	1.19	19.4	4.72	1.20
	80	1.5	1.05	6.48	7.0	1.91	1.07	7.7	2.10	1.08	10.1	2.68	1.11	12.6	3.24	1.14	14.3	3.61	1.16	15.0	3.77	1.17	17.4	4.27	1.20

Q8SF-X36K High Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
1045	60	15.0	2.28	1.85	19.2	2.56	1.97	20.9	2.67	2.02	26.9	3.05	2.19	32.7	3.42	2.36	36.8	3.67	2.49	38.6	3.77	2.54	44.3	4.12	2.71
	70	12.9	1.75	2.11	17.1	2.09	2.23	18.9	2.23	2.28	24.8	2.69	2.45	30.7	3.15	2.62	34.7	3.46	2.75	36.5	3.59	2.80	42.2	4.02	2.97
	80	10.8	1.22	2.37	15.0	1.61	2.49	16.8	1.78	2.54	22.7	2.33	2.71	28.6	2.87	2.88	32.7	3.24	3.01	34.4	3.40	3.06	40.2	3.91	3.23
1245	60	15.1	2.38	1.87	19.3	2.65	1.99	21.1	2.77	2.04	27.0	3.15	2.21	32.9	3.52	2.39	37.0	3.77	2.51	38.7	3.87	2.56	44.5	4.21	2.73
	70	13.1	1.85	2.13	17.2	2.18	2.25	19.0	2.32	2.30	25.0	2.79	2.47	30.8	3.24	2.65	34.9	3.55	2.77	36.6	3.68	2.82	42.4	4.11	2.99
	80	11.0	1.31	2.39	15.2	1.71	2.51	17.0	1.88	2.56	22.9	2.43	2.73	28.8	2.97	2.91	32.8	3.34	3.03	34.6	3.50	3.08	40.3	4.01	3.25
1445	60	15.3	2.54	1.89	19.5	2.81	2.01	21.3	2.93	2.06	27.2	3.31	2.24	33.0	3.68	2.41	37.1	3.93	2.53	38.9	4.03	2.58	44.6	4.37	2.75
	70	13.2	2.01	2.15	17.4	2.34	2.27	19.2	2.49	2.32	25.1	2.95	2.50	31.0	3.40	2.67	35.1	3.71	2.79	36.8	3.84	2.84	42.6	4.27	3.01
	80	11.1	1.48	2.41	15.3	1.87	2.53	17.1	2.04	2.58	23.0	2.59	2.76	28.9	3.13	2.93	33.0	3.50	3.05	34.7	3.66	3.10	40.5	4.17	3.27

EXPANDED RATINGS Continued

HEATING

Q8SF-X36K Low Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
700	60	6.2	1.22	1.49	9.6	1.82	1.54	11.0	2.07	1.56	15.8	2.85	1.63	20.6	3.57	1.69	24.0	4.04	1.74	27.9	4.54	1.80	30.3	4.84	1.83
	70	5.7	1.17	1.43	8.9	1.74	1.50	10.3	1.97	1.53	14.8	2.68	1.62	19.4	3.30	1.72	22.6	3.70	1.79	26.2	4.13	1.86	28.5	4.37	1.91
	80	5.1	1.07	1.40	8.1	1.61	1.47	9.4	1.83	1.51	13.7	2.49	1.62	18.1	3.07	1.72	21.1	3.43	1.80	24.5	3.81	1.89	26.7	4.03	1.94
850	60	6.3	1.19	1.55	9.7	1.78	1.60	11.2	2.03	1.62	16.1	2.81	1.68	21.0	3.53	1.75	24.4	4.00	1.79	28.4	4.51	1.84	30.8	4.82	1.88
	70	5.9	1.14	1.51	9.1	1.70	1.57	10.5	1.93	1.60	15.1	2.63	1.69	19.8	3.26	1.78	23.0	3.67	1.84	26.7	4.10	1.91	29.0	4.35	1.96
	80	5.3	1.05	1.46	8.4	1.59	1.54	9.7	1.80	1.57	14.1	2.46	1.68	18.5	3.03	1.79	21.6	3.39	1.87	25.1	3.77	1.95	27.3	3.99	2.01
1000	60	6.5	1.19	1.61	10.0	1.77	1.66	11.5	2.01	1.67	16.4	2.78	1.73	21.4	3.50	1.79	24.8	3.97	1.83	28.8	4.48	1.88	31.3	4.79	1.91
	70	6.0	1.13	1.56	9.3	1.68	1.62	10.7	1.90	1.65	15.4	2.60	1.74	20.1	3.24	1.83	23.5	3.64	1.89	27.2	4.08	1.96	29.6	4.33	2.00
	80	5.4	1.05	1.53	8.6	1.57	1.60	9.9	1.78	1.63	14.4	2.42	1.74	18.8	2.98	1.85	21.9	3.34	1.93	25.5	3.71	2.01	27.7	3.93	2.07

Q8SF-X48K High Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
1440	60	22.7	2.59	2.64	28.0	2.78	2.79	30.2	2.87	2.85	37.5	3.17	3.07	44.5	3.50	3.28	49.3	3.74	3.43	51.3	3.85	3.49	57.8	4.24	3.71
	70	20.6	2.34	3.01	25.9	2.51	3.16	28.1	2.59	3.22	35.4	2.87	3.44	42.4	3.18	3.65	47.2	3.41	3.80	49.2	3.51	3.86	55.7	3.88	4.08
	80	18.4	2.08	3.38	23.7	2.24	3.53	26.0	2.31	3.59	33.2	2.57	3.81	40.3	2.86	4.02	45.0	3.08	4.17	47.0	3.17	4.23	53.6	3.52	4.45
1640	60	23.0	2.50	2.67	28.3	2.73	2.82	30.6	2.83	2.88	37.8	3.18	3.10	44.9	3.56	3.31	49.6	3.84	3.46	51.7	3.97	3.52	58.2	4.40	3.74
	70	20.9	2.19	3.04	26.2	2.40	3.19	28.4	2.49	3.25	35.7	2.82	3.46	42.7	3.18	3.68	47.5	3.45	3.83	49.5	3.57	3.89	56.1	3.98	4.11
	80	18.8	1.87	3.41	24.1	2.07	3.56	26.3	2.15	3.62	33.6	2.46	3.83	40.6	2.80	4.05	45.4	3.06	4.20	47.4	3.17	4.26	53.9	3.56	4.48
1840	60	23.4	2.48	2.70	28.7	2.74	2.85	30.9	2.85	2.91	38.2	3.26	3.12	45.2	3.69	3.34	50.0	4.01	3.49	52.0	4.15	3.55	58.5	4.63	3.77
	70	21.3	2.11	3.07	26.5	2.35	3.22	28.8	2.46	3.28	36.1	2.84	3.49	43.1	3.25	3.71	47.9	3.55	3.86	49.9	3.69	3.92	56.4	4.16	4.13
	80	19.1	1.73	3.44	24.4	1.96	3.59	26.6	2.06	3.65	33.9	2.42	3.86	41.0	2.81	4.08	45.7	3.10	4.23	47.7	3.23	4.29	54.3	3.68	4.50

Q8SF-X48K Low Speed

		OUTDOOR TEMPERATURE (Deg. F)																							
SCFM	IDT	10			17			20			30			40			47			50			60		
		MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
950	60	11.9	1.81	1.93	16.1	2.28	2.07	17.8	2.46	2.13	23.8	3.00	2.32	29.7	3.46	2.52	33.8	3.74	2.65	35.6	3.85	2.71	41.5	4.19	2.91
	70	11.3	1.70	1.95	15.3	2.13	2.11	17.0	2.29	2.18	22.7	2.77	2.40	28.4	3.17	2.62	32.4	3.41	2.78	34.1	3.51	2.85	39.8	3.80	3.07
	80	10.7	1.58	1.99	14.6	1.98	2.16	16.2	2.13	2.23	21.7	2.56	2.48	27.1	2.91	2.73	31.0	3.12	2.91	32.6	3.21	2.98	38.1	3.46	3.23
1100	60	12.0	1.77	1.99	16.2	2.25	2.12	18.0	2.43	2.18	24.1	2.98	2.37	30.1	3.46	2.55	34.3	3.75	2.68	36.1	3.86	2.74	42.1	4.22	2.93
	70	11.5	1.67	2.01	15.5	2.10	2.16	17.3	2.27	2.23	23.0	2.76	2.44	28.8	3.17	2.66	32.8	3.43	2.81	34.6	3.52	2.88	40.3	3.83	3.09
	80	10.9	1.56	2.05	14.8	1.96	2.21	16.4	2.11	2.29	22.0	2.55	2.53	27.6	2.92	2.77	31.4	3.14	2.94	33.1	3.23	3.01	38.7	3.49	3.25
1250	60	12.2	1.75	2.04	16.5	2.22	2.17	18.3	2.41	2.22	24.4	2.97	2.41	30.4	3.45	2.59	34.7	3.75	2.72	36.5	3.86	2.77	42.6	4.23	2.95
	70	11.7	1.66	2.06	15.8	2.09	2.21	17.5	2.26	2.27	23.4	2.76	2.48	29.2	3.18	2.70	33.3	3.43	2.84	35.0	3.54	2.91	40.9	3.85	3.12
	80	11.1	1.55	2.10	15.0	1.94	2.27	16.7	2.09	2.34	22.3	2.54	2.57	27.9	2.91	2.81	31.8	3.14	2.97	33.5	3.23	3.04	39.1	3.50	3.28



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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