

## Q6SD Series

### 13 SEER, 7.7 HSPF Three Phase, Packaged Heat Pump 3 - 5 Ton Units

The Q6SD Series packaged units 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. The unit is truly designed with the contractor and the end user in mind.



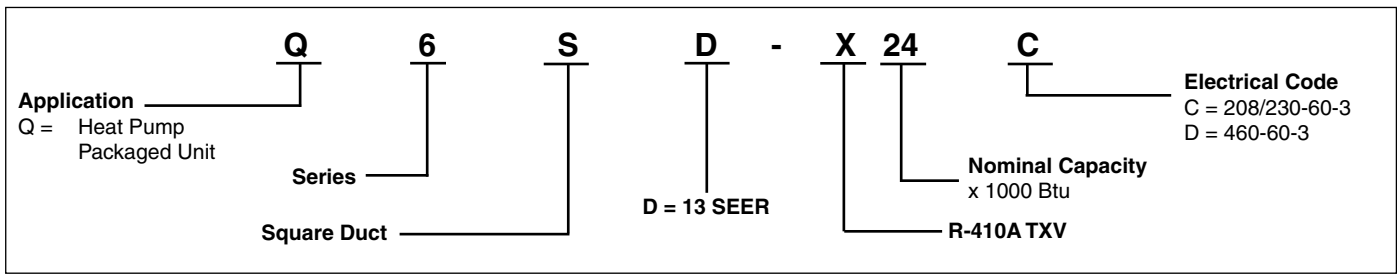
### WARRANTY

- One Year Commercial Parts Warranty
- 5 Year Limited Compressor Warranty

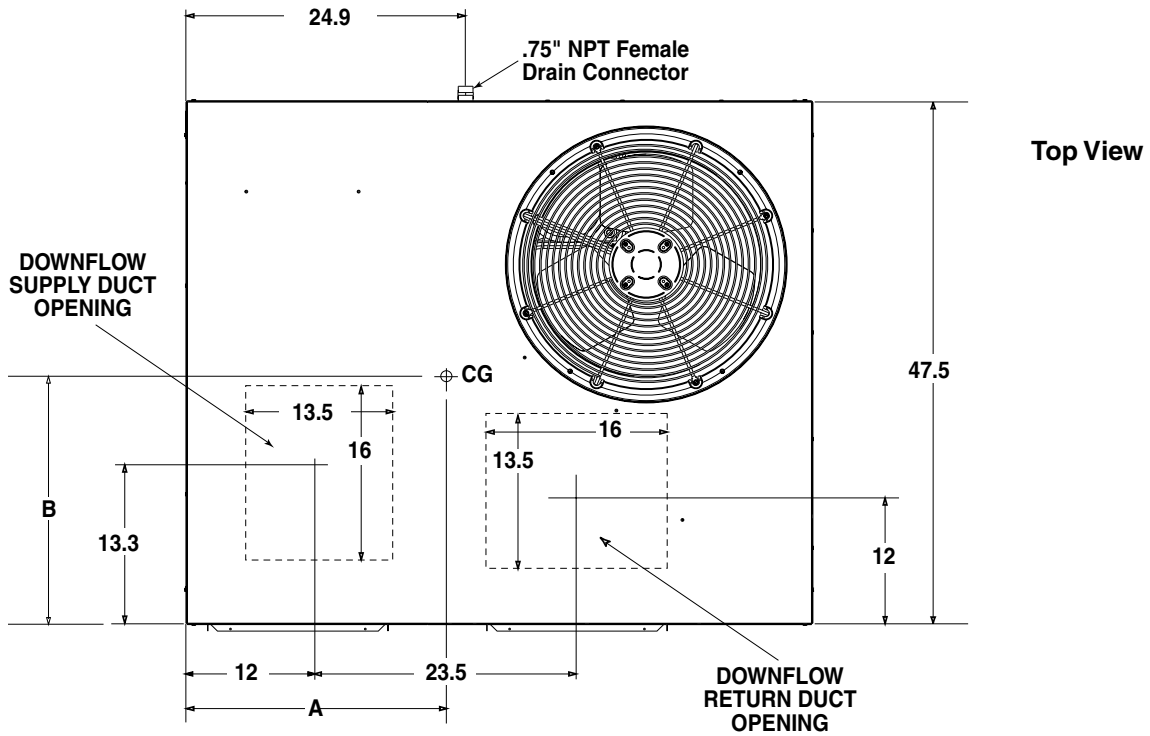
### FEATURES and BENEFITS

- **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.
- **Suction Accumulator:** Protection from liquid flood back and future compressor failures.
- **Crankcase Heater:** Prevents damaging flooded starts and future compressor failures.
- **High Pressure Switch:** Protects against abnormally high system pressures.
- **Low Pressure Switch:** Protects against loss of refrigerant charge.
- **Bi-Flow Liquid Line Filter/Drier:** Insures clean and dry refrigeration system.
- **Externally Accessible Service Ports:** Quick access to refrigerant system without disrupting operation.
- **Time Temperature Defrost:** A reliable, industry standard control offers various time settings to meet any type climate.
- **Five Minute Restart Time Delay:** When the units shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
- **Compact Footprint:** Easy to handle and transport.
- **Convertible Air Delivery as Shipped:** Horizontal or downflow to accommodate rooftop or horizontal application.
- **Heavy-Gauge, Full Perimeter Base Rails:** Facilitates forklift handling and curb mounting.
- **Galvanized Steel Cabinet:** with polyurethane finish provides 950 hour salt spray protection.
- **Wire Guard Coated with Earth - Friendly Epoxy and Plastic Mesh Hail Guard:** will never rust and protects the coil from being damaged by balls, hail etc.
- **Corrosion-Resistant Drain Pan:** Quickly drains away evaporator condensate.
- **Quiet Operation:** Low vibration. 20" fan blade combined with custom venturi condenser fan opening.
- **Access to Controls and Major Components:** Easy in and out service.
- **Service Access Panels:** To all major components and the compressor. Designed to make servicing easier for the Contractor.
- **Factory Installed Filter Rack:** Capable of 1" or 2" filters.
- **Field Installed Electric heat strip:** Capable of 9 or 15 kW of heat output.
- **Accessories:** Roof curbs, economizers, fresh air dampers and more.

# MODEL IDENTIFICATION CODE



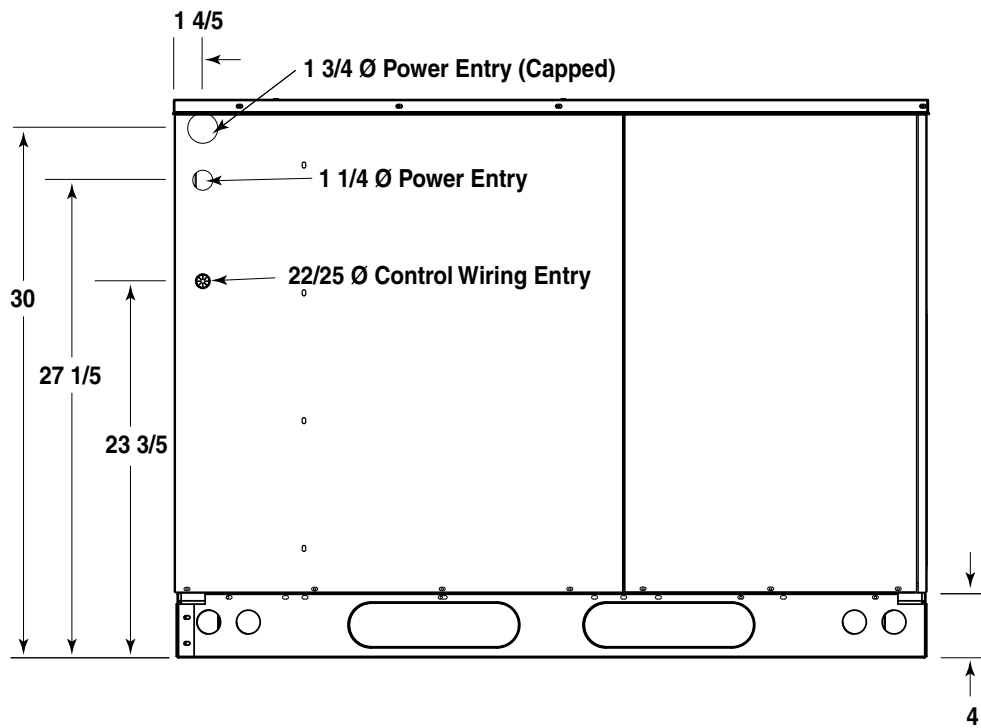
# DIMENSIONS



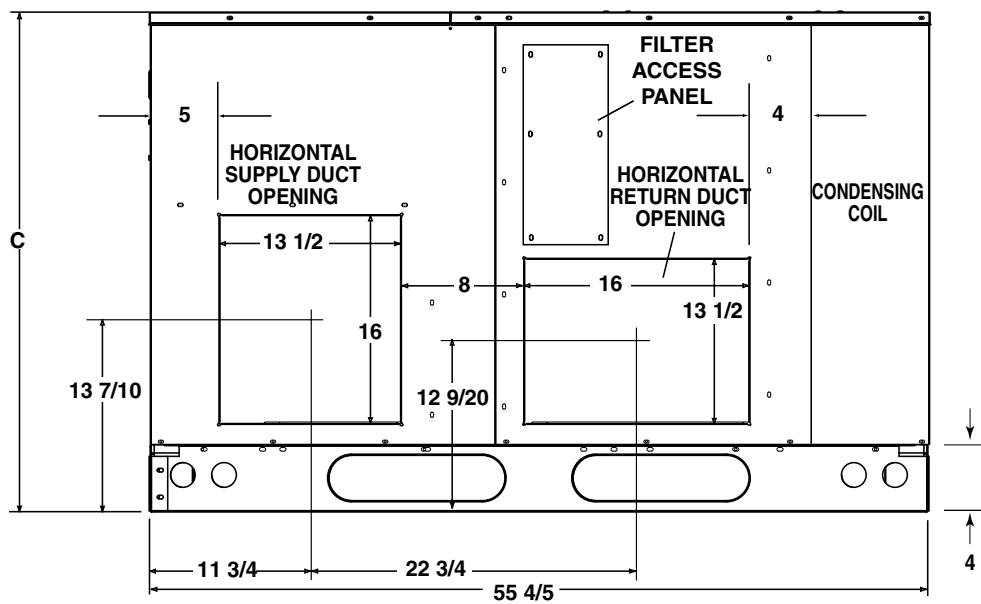
## Q6SD Models

Model Number Q6SD-	Unit Weight	Center of Gravity		Height (in inches) C	
		A	B	C	
				w/ base rails	w/out base rails
X36	450	28.0	26.0	39	35.3
X48	560	29.5	26.5	43	39.3
X60	570	29.5	26.5	43	39.3

# DIMENSIONS (Continued)



Side View



Back (Duct) View

# SPECIFICATIONS

## Q6SD Models 208/230v Three Phase

Model Number	Q6SD-		
	X36C	X48C	X60C
<b>Performance</b>			
Capacity - Heating BTUH	33,400	46,000	59,000
Efficiency - HSPF	7.7	7.7	7.7
Capacity -Cooling BTUH	35,000	46,000	58,000
Efficiency - SEER	13.50	13.30	13.00
EER (Btuh/watt)	11.8	11.2	11.0
<b>Electrical Rating - 60 Hz</b>			
Phase	3	3	3
Operating Voltage Range	187 - 253	187 - 253	187 - 253
<b>Compressor Data</b>			
Volts	208 / 230	208 / 230	208 / 230
Rated Load Amps	11.6	15.3	17.4
Lock Rotor Amps	73	83	110
<b>Indoor Blower</b>			
Type	Fixed Torque	Fixed Torque	Fixed Torque
Motor - HP	1/2	3/4	3/4
Motor - Amps	4.1	6.0	6.0
<b>Outdoor Fan</b>			
Motor - HP / RPM	1/4 - 1100	1/4 - 1100	1/3 - 1100
Motor - Amps	1.2	1.2	1.5
Fan Diameter / CFM	20/3800	20/3800	20/4000
<b>R-410A Charge - Oz.</b>	110.4	224	224
<b>Net Weight lbs.</b>	420	510	540
<b>Shipping Weight lbs.</b>	430	520	550
<b>Filters (Field Installed)</b>			
Style	Disposable	Disposable	
Size (qty)	16 x 25 x 1 (2)	18 x 25 x 1 (2)	
	Field convertible to two inches		
Sounds Ratings	78	78	78

# Q6SD EXPANDED RATINGS - COOLING

**Q6SD-X36**

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	37.1	31.4	2.16	35.7	31.2	2.38	34.3	31.3	2.63	32.8	30.7	2.91	31.4	30.9	3.23	29.8	29.3	3.60
	80	67	39.7	25.4	2.18	38.1	25.2	2.41	36.5	25.5	2.66	34.9	25.1	2.93	33.1	24.7	3.25	31.2	23.9	3.62
	80	72	42.7	19.1	2.21	41.0	19.0	2.44	39.2	19.4	2.69	37.4	19.0	2.97	35.5	18.7	3.28	33.4	19.1	3.64
	75	63	37.0	24.6	2.16	35.6	24.4	2.38	34.1	24.6	2.63	32.5	24.1	2.91	30.8	22.3	3.23	29.0	23.9	3.59
1350	80	62	38.0	33.5	2.17	36.6	34.0	2.39	35.3	32.9	2.64	33.9	32.0	2.92	32.4	31.3	3.24	30.7	30.5	3.61
	80	67	40.4	27.0	2.19	38.8	27.8	2.41	37.2	27.1	2.66	35.5	26.9	2.94	33.6	26.9	3.26	31.7	26.9	3.62
	80	72	43.4	20.1	2.22	41.7	20.9	2.45	39.9	20.3	2.70	38.1	20.2	2.97	36.1	20.3	3.29	33.9	20.4	3.65
	75	63	37.7	26.1	2.17	36.3	26.7	2.39	34.7	26.1	2.64	33.1	25.8	2.91	31.3	25.7	3.23	29.5	25.6	3.60
1500	80	62	39.0	35.5	2.18	37.7	35.2	2.40	36.3	33.9	2.65	34.8	33.0	2.93	33.2	32.1	3.25	31.5	31.4	3.62
	80	67	41.0	29.1	2.20	39.4	29.4	2.42	37.8	28.7	2.67	36.0	28.6	2.95	34.1	28.5	3.27	32.2	28.5	3.63
	80	72	44.0	21.5	2.24	42.2	21.9	2.45	40.4	21.3	2.70	38.5	21.3	2.98	36.5	21.2	3.30	34.3	21.4	3.66
	75	63	38.4	28.0	2.17	36.8	28.2	2.39	35.2	27.5	2.64	33.6	27.4	2.92	31.8	27.2	3.24	29.9	27.1	3.60

**Q6SD-X48**

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	49.1	39.0	2.98	47.1	38.7	3.35	45.0	38.9	3.71	43.0	38.2	4.11	40.9	40.0	4.54	38.7	37.9	5.02
	80	67	53.1	31.7	2.99	50.8	31.4	3.38	48.6	31.9	3.75	46.2	31.3	4.15	43.9	30.9	4.59	41.5	29.3	5.07
	80	72	58.1	24.4	2.98	55.4	24.2	3.39	52.8	24.6	3.79	50.3	24.1	4.20	47.7	23.8	4.64	45.0	24.5	5.13
	75	63	49.4	30.8	2.99	47.4	30.7	3.35	45.2	30.9	3.72	43.1	30.3	4.11	40.9	28.1	4.54	38.6	30.2	5.02
1500	80	62	50.2	41.5	3.04	48.0	42.2	3.42	46.0	41.2	3.78	43.8	40.7	4.18	41.8	40.3	4.62	39.8	39.5	5.10
	80	67	54.0	33.7	3.05	51.6	34.5	3.43	49.3	33.7	3.81	46.9	33.3	4.22	44.5	33.4	4.66	42.0	33.5	5.14
	80	72	58.8	25.5	3.04	56.1	26.5	3.45	53.5	25.7	3.86	50.8	25.5	4.27	48.1	25.7	4.71	45.4	25.9	5.20
	75	63	50.3	32.6	3.04	48.1	33.4	3.42	45.9	32.5	3.78	43.7	32.1	4.18	41.4	32.1	4.61	39.1	32.1	5.09
1650	80	62	51.0	44.3	3.10	48.9	44.4	3.48	46.7	43.3	3.85	44.8	42.5	4.26	42.8	41.3	4.69	40.7	40.5	5.18
	80	67	54.8	35.9	3.10	52.3	36.3	3.50	49.8	35.4	3.88	47.4	35.3	4.29	44.9	35.1	4.73	42.4	35.3	5.21
	80	72	59.5	27.1	3.10	56.7	27.6	3.52	53.9	26.8	3.93	51.2	26.8	4.34	48.5	26.7	4.78	45.8	27.2	5.27
	75	63	51.0	34.7	3.10	48.7	35.0	3.48	46.5	34.1	3.85	44.2	33.9	4.25	41.8	33.6	4.68	39.4	33.8	5.15

**Q6SD-X60**

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.
1550	80	62	60.7	47.1	3.98	58.5	46.8	4.32	56.1	47.1	4.71	53.6	46.3	5.15	51.1	48.6	5.65	48.5	46.2	6.23
	80	67	65.5	38.6	4.05	63.0	38.4	4.39	60.4	38.8	4.79	57.7	38.1	5.23	54.9	37.7	5.74	52.0	35.7	6.31
	80	72	71.5	29.8	4.16	68.6	29.7	4.50	65.8	30.3	4.90	62.8	29.8	5.34	59.6	29.4	5.84	56.3	30.3	6.41
	75	63	61.1	37.6	3.98	58.8	37.3	4.32	56.3	37.6	4.72	53.8	36.9	5.15	51.2	34.4	5.66	48.5	36.8	6.23
1700	80	62	61.9	49.8	4.00	59.6	50.8	4.34	57.2	49.7	4.73	54.7	49.3	5.17	52.1	49.2	5.68	49.6	49.1	6.25
	80	67	66.7	40.6	4.07	64.1	41.7	4.41	61.4	40.7	4.81	58.7	40.4	5.26	55.8	40.5	5.75	52.8	40.7	6.33
	80	72	72.6	31.1	4.18	69.6	32.5	4.53	66.6	31.6	4.92	63.4	31.4	5.35	60.1	31.7	5.85	56.8	32.0	6.42
	75	63	62.3	39.4	4.00	59.9	40.4	4.34	57.3	39.4	4.73	54.8	39.0	5.17	52.1	39.0	5.67	49.3	39.0	6.25
1850	80	62	63.1	53.1	4.02	60.7	53.4	4.35	58.2	52.3	4.75	55.7	52.1	5.19	53.3	51.4	5.70	50.8	50.6	6.28
	80	67	67.8	43.1	4.09	65.1	43.7	4.43	62.3	42.6	4.83	59.5	42.6	5.28	56.6	42.4	5.77	53.5	42.8	6.34
	80	72	73.3	33.0	4.19	70.1	33.7	4.54	67.1	32.8	4.93	64.0	32.8	5.37	60.9	32.8	5.87	57.5	33.3	6.44
	75	63	63.3	41.8	4.02	60.8	42.2	4.36	58.2	41.2	4.75	55.6	41.0	5.19	52.8	40.8	5.69	49.9	41.0	6.26

# Q6SD HEATING EXPANDED RATINGS - HEATING

Q6SDX36

CFM	Indoor T. Deg. F	OUTDOOR TEMPERATURE (Deg. F)																							
		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
1200	60	14.5	1.99	2.14	18.3	2.42	2.21	19.9	2.60	2.24	25.3	3.16	2.35	30.7	3.68	2.45	34.5	4.01	2.52	36.1	4.15	2.55	41.5	4.58	2.66
	70	13.8	1.86	2.18	17.5	2.26	2.27	19.0	2.42	2.30	24.2	2.93	2.43	29.4	3.38	2.55	33.1	3.68	2.64	34.6	3.80	2.67	39.8	4.17	2.80
	80	13.3	1.73	2.25	16.7	2.10	2.34	18.2	2.25	2.38	23.2	2.70	2.52	28.2	3.11	2.65	31.6	3.38	2.75	33.1	3.49	2.79	38.1	3.82	2.92
1350	60	14.6	1.95	2.19	18.4	2.40	2.26	20.1	2.58	2.29	25.6	3.15	2.39	31.1	3.67	2.49	35.0	4.01	2.55	36.6	4.16	2.58	42.1	4.60	2.68
	70	14.0	1.84	2.24	17.7	2.24	2.32	19.3	2.40	2.36	24.6	2.91	2.47	29.8	3.38	2.59	33.5	3.68	2.67	35.1	3.80	2.71	40.4	4.19	2.82
	80	13.4	1.71	2.30	17.0	2.08	2.39	18.5	2.23	2.43	23.5	2.69	2.56	28.6	3.11	2.69	32.1	3.39	2.78	33.6	3.50	2.82	38.7	3.84	2.95
1500	60	14.7	1.93	2.24	18.6	2.37	2.31	20.3	2.55	2.33	25.9	3.13	2.43	31.5	3.66	2.52	35.4	4.01	2.59	37.1	4.15	2.62	42.6	4.61	2.71
	70	14.2	1.82	2.29	17.9	2.22	2.37	19.5	2.39	2.40	24.9	2.90	2.51	30.2	3.38	2.62	34.0	3.68	2.70	35.6	3.81	2.74	40.9	4.21	2.85
	80	13.6	1.70	2.35	17.2	2.07	2.44	18.7	2.21	2.48	23.8	2.68	2.60	28.9	3.11	2.73	32.5	3.38	2.82	34.0	3.49	2.86	39.1	3.84	2.98

Q6SD-X48

CFM	Indoor T. Deg. F	OUTDOOR TEMPERATURE (Deg. F)																							
		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
1350	60	19.31	2.12	2.67	24.61	2.55	2.83	26.89	2.72	2.89	34.46	3.24	3.12	42.03	3.70	3.34	47.34	3.98	3.49	49.61	4.09	3.56	57.18	4.44	3.78
	70	18.57	1.94	2.81	23.74	2.34	2.97	25.95	2.50	3.05	33.33	2.98	3.29	40.72	3.39	3.53	45.89	3.64	3.69	48.10	3.75	3.77	55.48	4.06	4.00
	80	18.02	1.79	2.96	23.04	2.15	3.14	25.19	2.30	3.22	32.35	2.73	3.48	39.52	3.10	3.74	44.53	3.33	3.92	46.68	3.43	3.99	53.85	3.71	4.25
1500	60	19.46	2.10	2.72	24.83	2.54	2.87	27.13	2.72	2.93	34.80	3.25	3.14	42.47	3.72	3.35	47.84	4.01	3.50	50.14	4.13	3.56	57.81	4.49	3.78
	70	18.78	1.93	2.85	24.00	2.34	3.01	26.24	2.50	3.08	33.69	2.99	3.31	41.14	3.41	3.54	46.36	3.67	3.70	48.60	3.78	3.77	56.05	4.11	4.00
	80	18.17	1.78	3.00	23.25	2.15	3.18	25.43	2.29	3.25	32.69	2.74	3.50	39.94	3.13	3.75	45.02	3.37	3.92	47.20	3.47	3.99	54.46	3.76	4.24
1650	60	19.52	2.08	2.76	24.96	2.52	2.90	27.29	2.70	2.97	35.06	3.24	3.17	42.83	3.72	3.38	48.27	4.02	3.52	50.60	4.14	3.59	58.37	4.51	3.79
	70	19.00	1.93	2.89	24.26	2.33	3.05	26.52	2.50	3.11	34.03	2.99	3.34	41.55	3.42	3.56	46.81	3.69	3.72	49.06	3.80	3.78	56.58	4.14	4.01
	80	18.37	1.77	3.04	23.49	2.15	3.21	25.68	2.29	3.28	32.99	2.75	3.52	40.29	3.14	3.76	45.41	3.39	3.93	47.60	3.49	4.00	54.90	3.80	4.24

Q6SD-X60

CFM	Indoor T. Deg. F	OUTDOOR TEMPERATURE (Deg. F)																							
		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
1500	60	30.14	2.30	3.83	36.01	2.65	3.99	38.53	2.79	4.05	46.92	3.23	4.27	55.32	3.62	4.48	61.19	3.87	4.63	63.71	3.98	4.70	72.10	4.30	4.91
	70	29.19	2.07	4.14	34.97	2.39	4.29	37.45	2.52	4.36	45.71	2.93	4.57	53.96	3.30	4.79	59.74	3.55	4.94	62.22	3.64	5.01	70.48	3.96	5.22
	80	28.71	1.88	4.47	34.34	2.18	4.63	36.75	2.30	4.69	44.79	2.67	4.92	52.83	3.01	5.14	58.46	3.23	5.30	60.88	3.32	5.37	68.92	3.61	5.59
1700	60	30.42	2.31	3.86	36.38	2.66	4.00	38.93	2.81	4.06	47.44	3.26	4.27	55.95	3.67	4.47	61.91	3.94	4.61	64.46	4.05	4.67	72.97	4.39	4.88
	70	29.55	2.08	4.16	35.39	2.41	4.30	37.89	2.55	4.36	46.23	2.97	4.57	54.56	3.36	4.77	60.40	3.61	4.91	62.90	3.71	4.97	71.24	4.04	5.17
	80	28.93	1.89	4.50	34.64	2.19	4.64	37.08	2.31	4.70	45.24	2.70	4.91	53.40	3.06	5.11	59.11	3.30	5.25	61.56	3.40	5.32	69.72	3.70	5.52
1900	60	30.43	2.29	3.89	36.50	2.66	4.03	39.10	2.80	4.09	47.77	3.27	4.29	56.44	3.69	4.48	62.51	3.97	4.62	65.11	4.08	4.68	73.78	4.43	4.88
	70	29.92	2.09	4.20	35.80	2.42	4.33	38.32	2.56	4.39	46.72	2.99	4.58	55.12	3.39	4.77	61.00	3.65	4.90	63.52	3.76	4.96	71.92	4.10	5.15
	80	29.24	1.89	4.53	35.00	2.20	4.66	37.46	2.33	4.72	45.69	2.73	4.91	53.91	3.10	5.10	59.67	3.35	5.23	62.14	3.45	5.29	70.36	3.77	5.47