

TECHNICAL SPECIFICATIONS

Q6SP Series

7.5 and 10 Ton Packaged Electric Heat Pump Units with R-410A 11.0 EER

Commercial Systems Meet or Exceed ASHRAE 90.1

These 7½ and 10 ton units are designed specifically for retrofit applications and compatibility with most standard footprints. They take less time to install and retrofit, making the contractor's job more profitable. 7½ and 10 ton units offer flexibility in the replacement market by utilizing a database of major manufacturer's unit footprints and offers roof curb transitions to meet virtually any configuration. This unit is compliant with the 2007 requirements of ASHRAE 90.1, Addendum S.

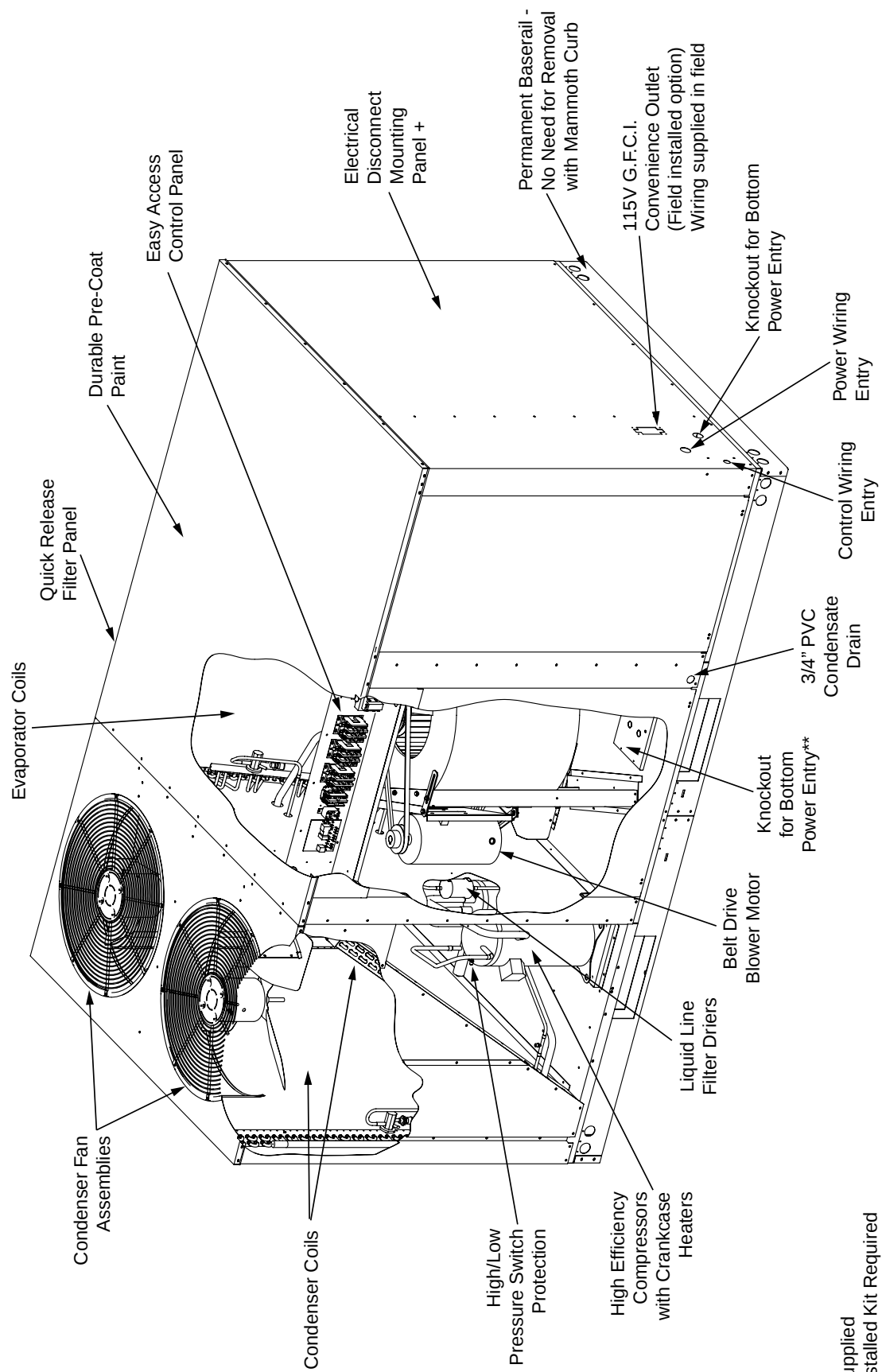


WARRANTY

- 1 year limited parts
- 5 year compressor

FEATURES and BENEFITS

- **Convertible Air Delivery:** Easily converts to horizontal airflow with kit.
- **Compatibility:** Fits most standard rooftop applications—can be easily adapted for exceptions. Footprint database available for cross-reference at <http://www.rooftopsystems.com> under the "Adapter Quote" tab.
- **Mesh Hail Guard:** Will never rust and protects the coil from hail.
- **Fully Insulated Bottom Pan:** Helps ensure quiet operation and prevents condensation.
- **Quick-Release Filter Access Panels:** Requires no special servicing tools.
- **20-Gauge Precoated Paint:** Is corrosion resistant and promotes long life.
- **Two-Stage Cooling:** Offers two cooling stages from Dual refrigeration circuits.
- **Permanent Baseraill System:** Designed for full perimeter support of unit in slab mount applications.
- **For Easy Service:** Hi/low service ports allow quick access without disrupting operation.
- **Hi/low pressure switches:** Ensure long compressor life. Proven, industry standard components for service and availability.
- **Suction Accumulator:** Protection from liquid flood back and future compressor failures.
- **Time/Temperature Defrost:** A reliable, industry standard control offers various time settings to meet any type climate.
- **Five Minute Restart Time Delay:** When the unit shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
- **Crankcase Heater:** Prevents damaging flooded starts and future compressor failures.
- **Freeze Protection Thermostats:** Provide reliable operation over a wide range of conditions.

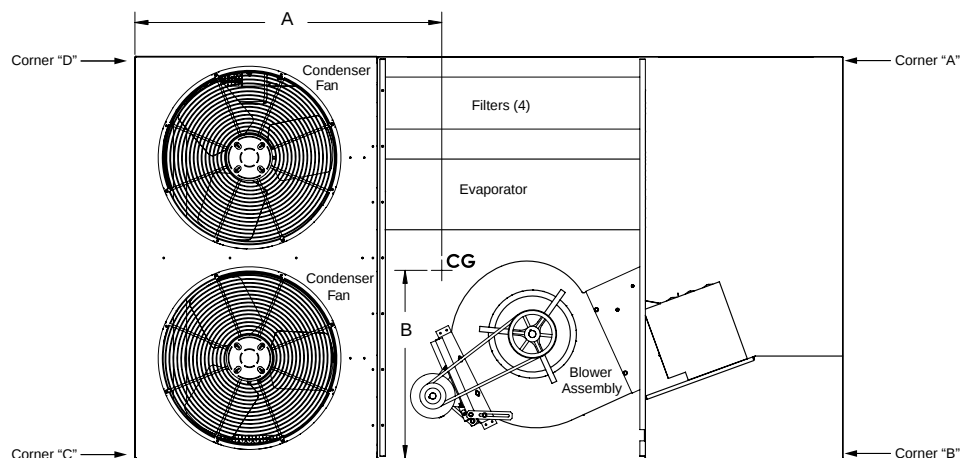


+ Field Supplied

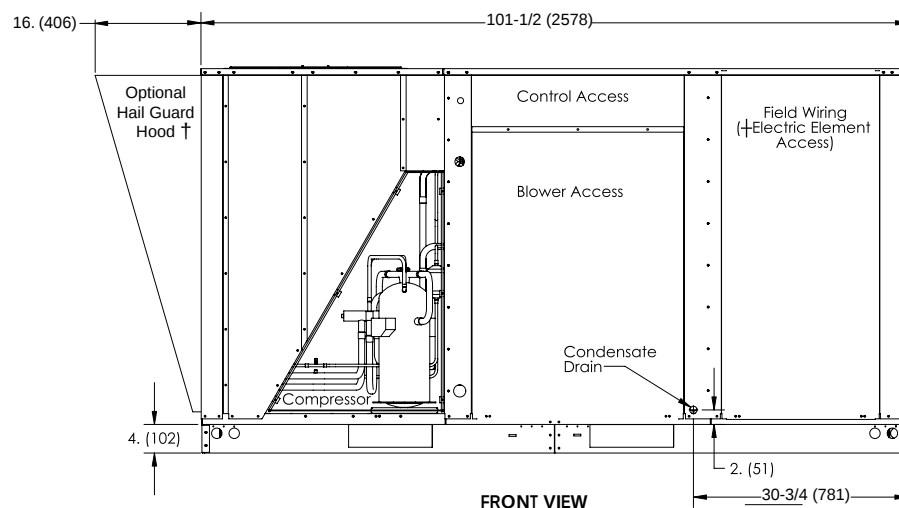
** Field Installed Kit Required

Q6SP-090 AND 120 SERIES – PHYSICAL DATA

Dimensions shown in inches (mm)

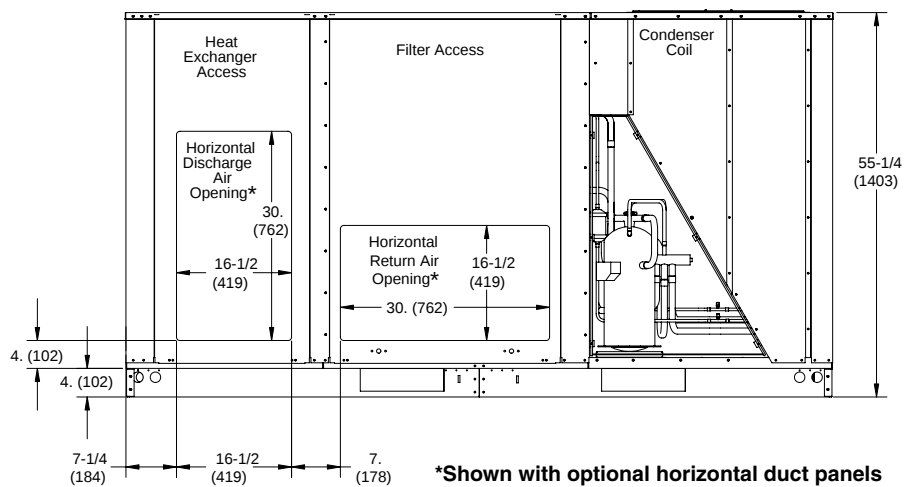


TOP VIEW



FRONT VIEW

FRONT VIEW

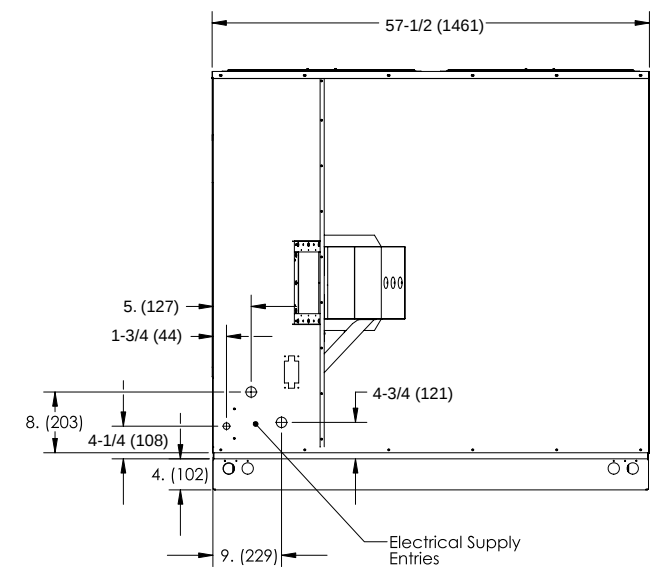


*Shown with optional horizontal duct panels
† Field Installed Kit

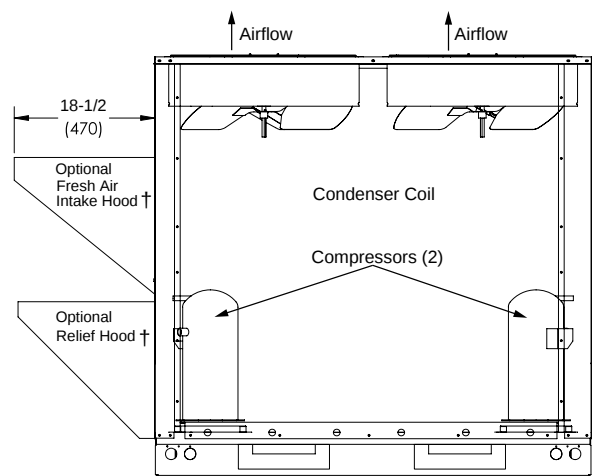
REAR VIEW

Q6SP-090 AND 120 SERIES – PHYSICAL DATA continued

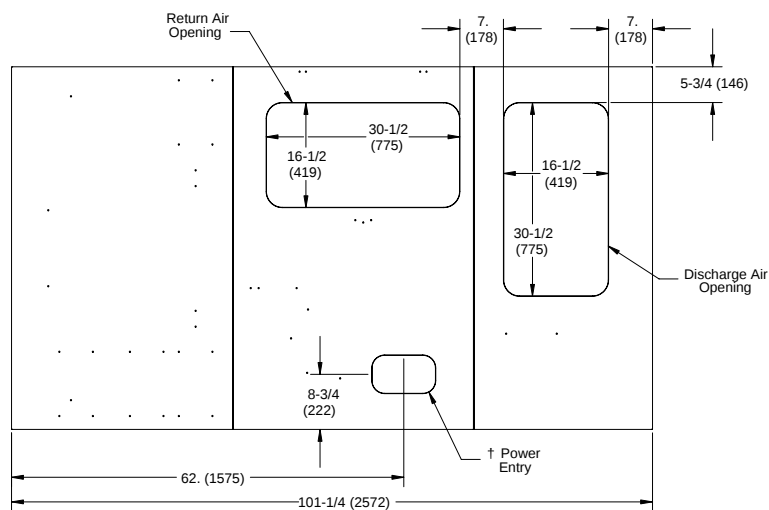
Dimensions shown in inches (mm)



HEAT EXCHANGER END



CONDENSER END



BOTTOM PAN TOP VIEW

Model No.	Unit Weight ‡		Shipping Weight		Center of Gravity Inches (mm)		Corner Weights								Unit Height with Baserails
							A		B		C		D		
	Lbs.	Kg.	Lbs.	Kg.	A	B	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	Lbs.	Kg.	55-1/4 (1409)
Q6SP-090(C,D)	1065	484	1205	548	45 (1143)	27 (686)	218	99	255	116	320	145	273	124	
Q6SP-120(C,D)	1130	514	1270	577	44 (1118)	27 (686)	226	103	264	120	345	157	295	134	

‡ Unit weight without packaging or field installed accessories.
† Field Installed Kit

MODEL IDENTIFICATION CODE

Application
Q =Heat Pump
Packaged Unit

Series
6

Rectangular Duct
S

P = 11.0-11.9
P

-

Nominal Capacity
x 1000 Btu
090

Electrical Code
C = 208/230-60-3
D = 460-60-3
C

SPECIFICATIONS AND ELECTRICAL DATA

Model Q6SP-	090C	090D	120C	120D
Performance Data				
Gross Cooling Capacity (High) - BTUH	92,750	92,750	125,000	125,000
¹ Net Cooling Capacity (High) - BTUH	90,000	90,000	120,000	120,000
AHRI Rated Airflow - CFM	3,000	3,000	3,850	3,850
² E.E.R. - Cooling Efficiency (Btu/Watt)	11.0	11.0	11.0	11.0
¹ Net Cooling Capacity (High @ 80°F) - BTUH	98,000	98,000	130,000	130,000
¹ Net Cooling Capacity (Low @ 80°F) - BTUH	45,000	45,000	60,000	60,000
³ I.E.E.R.	12.5	12.6	11.5	11.5
Gross Heating Capacity (High @ 47°F) - BTUH	85,000	85,000	114,000	114,000
⁴ C.O.P. - Heating Efficiency	3.3	3.3	3.3	3.3
Gross Heating Capacity (High @ 17°F) - BTUH	47,000	47,000	66,000	66,000
⁴ C.O.P. - Heating Efficiency	2.25	2.25	2.25	2.25
Electrical Rating - 60 Hz.	w/ Factory Standard Blower Drive			
Phase	3	3	3	3
† Operating Voltage	187-253	414-506	187-253	414-506
Maximum Rated Ampacity	35	17	42	21
Minimum Circuit Ampacity (MCA)	39	19	46	23
Max. Overcurrent Protection (MOP)	50	20	60	30
Standard Blower Drive Motor - HP / RPM	1.5 / 1725	1.5 / 1725	2 / 1725	2 / 1725
Standard Blower Drive Motor - Amps	4.2	2.0	6.2	2.9
Blower RPM Range (Downflow)	665-840		741-931	
Blower ESP Range	0.2 - 1.0 in-WC		0.2 - 1.0 in-WC	
Electrical Rating - 60 Hz.	w/ Factory Optional High Static Blower Drive			
Phase	3	3	3	3
† Operating Voltage	187-253	414-506	187-253	414-506
Maximum Rated Ampacity	40	19	45	23
Minimum Circuit Ampacity (MCA)	44	21	49	25
Max. Overcurrent Protection (MOP)	55	25	60	30
High Static Blower Drive Motor - HP / RPM	3 / 1725	3 / 1725	3 / 1725	3 / 1725
High Static Blower Drive Motor - Amps	9.1	4.4	9.1	4.4
Blower RPM Range (Downflow)	875-1117		986-1159	
Blower ESP Range	1.1 - 2.0 in-WC		1.0 - 2.0 in-WC	
Compressor Data	2 ea.	2 ea.	2 ea.	2 ea.
Compressors (Scrolls)	ZP39K5E	ZP39K5E	ZP54K5E	ZP54K5E
Volts	208/230	460	208/230	460
Rated Load Amps	13.1	6.1	15.6	7.8
Lock Rotor Amps	83.1	41.0	110	52
Indoor Blower - Belt Drive				
(Qty.) - Wheel Diameter	(1) - 15 x 15	(1) - 15 x 15	(1) - 15 x 15	(1) - 15 x 15
Outdoor Fan Data	2 ea.	2 ea.	2 ea.	2 ea.
Motor - HP / RPM	1/3 - 1075	1/3 - 1075	1/3 - 1075	1/3 - 1075
Motor Amps (ea.)	2.3	1.2	2.3	1.2
Fan Diameter / Total CFM	24" / 8200	24" / 8200	24" / 8200	24" / 8200
Refrigerant Charge - oz. (R-410a)				
Stage 1 Circuit	13.25 lbs		14.2 lbs	
Stage 2 Circuit	13.25 lbs		14.2 lbs	
High Pressure Switch (PSIG)	Stage 1 - 650 +/- 10 Manual Reset			
	Stage 2 - 650 +/- 10 Manual Reset			
Loss of Charge Switch (PSIG)	Cut Out: 5 +/- 5			
	Cut In: 20 +/- 5			
Freeze Protection Thermostats	Opens (°F) 28 +/-5			
	Closes (°F): 57 +/- 6			
Filters				
Style	Disposable - 2" Pleated			
Size (Qty.)	16" x 25" x 2" (4)		16" x 25" x 2" (4)	

† Units should be operating with a Supply voltage within 3% of Nameplate value to perform at shown efficiencies and capacities

Footnotes:

Note - Net capacity includes indoor blower motor heat deduction. Gross capacity does not include indoor blower motor heat deduction

¹Certified in accordance with AHRI Standard 340/360 at 95°F outdoor db and 80 °F db/67 F°wb evaporator entering air at minimum external duct static pressure.

²E.E.R. - Energy Efficiency Ratio

I.E.E.R. - Integrated Energy Efficiency Ratio: A measure of merit for the part load performance of the unit.

⁴C.O.P. - Coefficient of Performance

Q6SP 7.5 TON EXPANDED RATINGS, COOLING MODE

Single Stage Operation - 60 Hz

O.D.T			55 °F			65 °F			75 °F			85 °F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW
2825 CFM	75	62	51.3	37.3	4.24	48.6	36.3	4.37	44.8	34.5	4.61	39.8	31.8	4.98
		67	56.3	29.1	4.29	53.7	28.1	4.42	49.8	26.3	4.67	44.9	23.6	5.03
		72	61.9	20.1	4.35	59.3	19.0	4.48	55.4	17.2	4.73	50.4	14.5	5.09
	80	62	50.6	42.1	3.37	47.9	41.1	3.50	44.1	39.3	3.75	39.1	36.6	4.11
		67	54.9	35.2	3.42	52.2	34.2	3.55	48.4	32.3	3.79	43.4	29.7	4.16
		72	59.6	27.5	3.47	57.0	26.4	3.60	53.1	24.6	3.84	48.1	21.9	4.21
3000 CFM	75	62	52.3	38.9	5.08	49.6	37.9	5.21	45.8	36.1	5.46	40.8	33.4	5.82
		67	57.3	30.7	5.13	54.6	29.7	5.26	50.8	27.9	5.51	45.8	25.2	5.87
		72	62.9	21.7	5.19	60.2	20.6	5.32	56.4	18.8	5.57	51.4	16.1	5.93
	80	62	51.6	43.7	4.21	48.9	42.7	4.34	45.1	40.9	4.59	40.1	38.2	4.95
		67	55.8	36.8	4.26	53.2	35.8	4.39	49.3	33.9	4.64	44.4	31.3	5.00
		72	60.6	29.1	4.31	57.9	28.0	4.44	54.1	26.2	4.69	49.1	23.5	5.05
3188 CFM	75	62	51.3	39.3	4.44	48.6	38.3	4.57	44.8	36.5	4.82	39.8	33.8	5.18
		67	56.4	31.1	4.50	53.7	30.1	4.63	49.9	28.3	4.87	44.9	25.6	5.24
		72	61.9	22.0	4.56	59.3	21.0	4.69	55.5	19.2	4.93	50.5	16.5	5.29
	80	62	50.6	44.1	3.58	47.9	43.1	3.71	44.1	41.3	3.96	39.1	38.6	4.32
		67	54.9	37.2	3.62	52.2	36.2	3.75	48.4	34.3	4.00	43.4	31.6	4.36
		72	59.6	29.4	3.67	57.0	28.4	3.80	53.2	26.6	4.05	48.2	23.9	4.41

Two Stage Operation - 60 Hz

O.D.T			85 °F			95 °F			105 °F			115 °F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW
2825 CFM	75	62	84.8	68.1	7.38	78.8	65.6	8.10	71.5	62.4	8.90	62.6	58.5	9.80
		67	94.7	52.2	7.43	88.8	49.7	8.14	81.4	46.5	8.95	72.6	42.6	9.84
		72	105.8	34.6	7.48	99.9	32.1	8.19	92.5	28.9	9.00	83.7	25.0	9.89
	80	62	86.1	80.4	7.39	80.2	77.9	8.10	72.8	72.8	8.91	64.0	64.0	9.81
		67	94.6	66.9	7.43	88.6	64.4	8.14	81.3	61.2	8.95	72.4	57.3	9.84
		72	104.0	51.9	7.47	98.1	49.4	8.18	90.7	46.2	8.99	81.8	42.3	9.88
3000 CFM	75	62	86.2	70.6	7.42	80.2	68.1	8.14	72.8	64.8	8.94	64.0	60.9	9.84
		67	96.1	54.7	7.47	90.2	52.2	8.18	82.8	48.9	8.99	74.0	45.0	9.88
		72	107.2	37.0	7.52	101.3	34.5	8.23	93.9	31.3	9.04	85.0	27.4	9.93
	80	62	87.5	82.8	7.43	81.6	80.3	8.14	74.2	74.2	8.95	65.3	65.3	9.85
		67	96.0	69.4	7.47	90.0	66.9	8.18	82.6	63.7	8.99	73.8	59.8	9.88
		72	105.4	54.4	7.51	99.5	51.9	8.22	92.1	48.6	9.03	83.2	44.7	9.92
3188 CFM	75	62	86.3	72.4	7.46	80.3	69.9	8.18	73.0	66.7	8.98	64.1	62.8	9.88
		67	96.3	56.5	7.51	90.3	54.0	8.22	82.9	50.8	9.03	74.1	46.9	9.92
		72	107.3	38.9	7.56	101.4	36.4	8.27	94.0	33.2	9.08	85.2	29.3	9.97
	80	62	87.6	84.7	7.47	81.7	81.7	8.19	74.3	74.3	8.99	65.5	65.5	9.89
		67	96.1	71.3	7.51	90.1	68.8	8.22	82.8	65.6	9.03	73.9	61.6	9.92
		72	105.5	56.2	7.55	99.6	53.7	8.27	92.2	50.5	9.07	83.4	46.6	9.97

- Notes:
- 1) T.C. = total (Net) cooling in kBtuh; S.C. = Sensible Cooling in kBtuh; kW = Kilowatts
 - 2) Ratings are based on the Factory Standard blower drive combination
 - 3) For 208-230V Units, the ratings shown reflect 230V operation
 - 4) Bolded Values indicate AHRI rating points
 - 5) Energy Efficiency Ratio (EER) = T.C./kW

Q6SP 10 TON EXPANDED RATINGS, COOLING MODE

Single Stage Operation - 60 Hz

O.D.T			55 °F			65 °F			75 °F			85 °F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW
3600 CFM	75	62	66.3	49.4	4.95	60.4	45.2	5.20	55.0	42.0	5.55	50.0	39.8	6.02
		67	74.3	38.9	5.02	68.4	34.7	5.27	63.0	31.5	5.63	58.0	29.4	6.09
		72	83.2	27.3	5.11	77.3	23.1	5.35	71.9	19.9	5.71	66.9	17.7	6.17
	80	62	68.6	57.3	4.80	62.8	53.1	5.05	57.4	49.9	5.40	52.3	47.7	5.87
		67	75.4	48.4	4.86	69.6	44.2	5.11	64.1	41.0	5.46	59.1	38.8	5.93
		72	83.0	38.5	4.93	77.1	34.3	5.18	71.7	31.1	5.53	66.7	28.9	6.00
3850 CFM	75	62	68.0	50.7	5.23	62.1	46.5	5.48	56.7	43.3	5.83	51.7	41.1	6.30
		67	76.0	40.2	5.31	70.1	36.0	5.55	64.7	32.8	5.91	59.7	30.7	6.37
		72	84.8	28.6	5.39	79.0	24.4	5.63	73.6	21.2	5.99	68.5	19.0	6.46
	80	62	70.3	58.6	5.08	64.5	54.4	5.33	59.0	51.2	5.68	54.0	49.0	6.15
		67	77.1	49.7	5.14	71.3	45.5	5.39	65.8	42.3	5.75	60.8	40.1	6.21
		72	84.7	39.8	5.21	78.8	35.6	5.46	73.4	32.4	5.81	68.4	30.2	6.28
4100 CFM	75	62	67.7	51.8	5.31	61.8	47.6	5.56	56.4	44.4	5.91	51.4	42.3	6.38
		67	75.7	41.4	5.38	69.8	37.1	5.63	64.4	34.0	5.99	59.4	31.8	6.45
		72	84.6	29.7	5.46	78.7	25.5	5.71	73.3	22.3	6.07	68.3	20.2	6.53
	80	62	70.0	59.7	5.16	64.2	55.5	5.40	58.8	52.3	5.76	53.7	50.2	6.23
		67	76.8	50.9	5.22	71.0	46.6	5.47	65.5	43.5	5.82	60.5	41.3	6.29
		72	84.4	41.0	5.29	78.5	36.7	5.54	73.1	33.5	5.89	68.1	31.4	6.36

Two Stage Operation - 60 Hz

O.D.T			85 °F			95 °F			105 °F			115 °F		
CFM	E.D.B.	E.W.B.	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW	T.C.	S.C.	kW
3600 CFM	75	62	113.3	90.5	9.59	104.3	86.7	10.58	94.8	82.6	11.70	84.8	78.2	12.94
		67	127.6	69.2	9.74	118.5	65.4	10.74	109.0	61.4	11.85	99.1	57.0	13.09
		72	143.4	45.6	9.92	134.4	41.8	10.91	124.9	37.8	12.03	114.9	33.4	13.27
	80	62	115.0	106.2	9.63	105.9	102.5	10.62	96.4	96.4	11.74	86.4	86.4	12.98
		67	127.1	88.2	9.76	118.0	84.5	10.76	108.5	80.4	11.87	98.5	76.0	13.12
		72	140.6	68.1	9.91	131.5	64.3	10.90	122.0	60.3	12.02	112.0	55.9	13.26
3850 CFM	75	62	115.3	93.3	9.73	106.2	89.5	10.72	96.7	85.4	11.84	86.7	81.1	13.08
		67	129.5	72.0	9.89	120.5	68.2	10.88	111.0	64.2	12.00	101.0	59.8	13.24
		72	145.4	48.4	10.06	136.3	44.7	11.05	126.8	40.6	12.17	116.9	36.2	13.41
	80	62	116.9	109.0	9.78	107.9	105.3	10.77	98.4	98.4	11.89	88.4	88.4	13.13
		67	129.0	91.0	9.91	120.0	87.3	10.90	110.5	83.2	12.02	100.5	78.8	13.26
		72	142.5	70.9	10.06	133.5	67.2	11.05	124.0	63.1	12.17	114.0	58.7	13.41
4100 CFM	75	62	115.2	96.8	9.91	106.2	93.1	10.90	96.6	89.0	12.02	86.7	84.6	13.26
		67	129.5	75.6	10.06	120.4	71.8	11.06	110.9	67.7	12.17	101.0	63.3	13.41
		72	145.3	52.0	10.24	136.3	48.2	11.23	126.8	44.1	12.35	116.8	39.8	13.59
	80	62	116.9	112.6	9.95	107.8	107.8	10.94	98.3	98.3	12.06	88.3	88.3	13.30
		67	129.0	94.6	10.08	119.9	90.8	11.08	110.4	86.7	12.19	100.4	82.4	13.43
		72	142.5	74.5	10.23	133.4	70.7	11.22	123.9	66.6	12.34	113.9	62.3	13.58

- Notes:
- 1)T.C. = total (Net) cooling in kBtuh; S.C. = Sensible Cooling in kBtuh; kW = Kilowatts
 - 2)Ratings are based on the Factory Standard blower drive combination
 - 3)For 208-230V Units, the ratings shown reflect 230V operation
 - 4)**Bolded** Values indicate AHRI rating points
 - 5)Energy Efficiency Ratio (EER) = T.C./kW

Q6SP - 090 (*) Series

2 - Stage Heating		OUTDOOR TEMPERATURE (°F)																									
SCFM	E.D.B. (°F)	10			17			20			30			40			47			50			60				
		H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW	H.C.	COP	kW		
2825	60	42.1	2.20	5.62	51.0	2.64	5.66	54.8	2.78	5.78	67.4	3.28	6.03	6.03	80.1	3.57	6.59	6.59	88.9	3.67	7.11	92.7	3.69	7.37	105.4	3.88	7.97
	70	43.1	2.05	6.17	52.0	2.46	6.21	55.9	2.62	6.26	68.6	3.06	6.58	6.58	81.4	3.35	7.13	7.13	90.3	3.46	7.66	94.1	3.49	7.92	106.9	3.51	8.93
	80	38.2	1.68	6.67	47.4	2.07	6.71	51.3	2.23	6.76	64.4	2.67	7.08	7.08	77.5	2.98	7.63	7.63	86.6	3.11	8.16	90.6	3.16	8.42	103.6	3.22	9.43
3000	60	43.1	2.21	5.71	52.0	2.67	5.71	55.9	2.85	5.75	68.6	3.35	6.01	6.01	81.4	3.67	6.50	6.50	89.3	3.73	7.03	94.1	3.82	7.22	106.9	3.83	8.17
	70	38.2	1.79	6.10	47.0	2.25	6.13	51.3	2.39	6.29	64.4	3.05	6.56	6.56	77.5	3.22	7.05	7.05	85.0	3.30	7.55	90.6	3.42	7.77	104.5	3.53	8.69
	80	33.4	1.45	6.76	42.8	1.85	6.76	46.8	2.02	6.79	60.2	2.50	7.06	7.06	73.6	2.86	7.55	7.55	83.0	3.01	8.08	87.0	3.08	8.27	100.4	3.19	9.22
3188	60	36.9	1.83	5.90	45.7	2.28	5.89	49.5	2.45	5.92	62.2	2.95	6.18	6.18	74.8	3.30	6.66	6.66	83.7	3.44	7.13	87.5	3.48	7.37	100.1	3.53	8.31
	70	37.6	1.71	6.45	46.6	2.12	6.44	50.4	2.29	6.47	63.3	2.76	6.72	6.72	76.1	3.10	7.21	7.21	85.2	3.25	7.68	89.0	3.30	7.92	101.9	3.37	8.86
	80	35.5	1.50	6.95	44.7	1.89	6.94	48.6	2.04	6.97	61.7	2.51	7.22	7.22	74.9	2.85	7.71	7.71	84.1	3.01	8.18	88.0	3.07	8.42	101.1	3.17	9.36

Q6SP - 120 (*) Series

2 - Stage Heating		OUTDOOR TEMPERATURE (°F)																							
SCFM	E.D.B. (°F)	10		17		20		30		40		47		50		60									
		H.C. COP	kW	H.C. COP	kW	H.C. COP	kW	H.C. COP	kW	H.C. COP	kW	H.C. COP	kW	H.C. COP	kW	H.C. COP	kW								
3600	60	60.9	2.26	7.90	71.4	2.61	8.03	75.9	2.76	8.06	91.0	3.16	8.45	106.1	3.49	8.92	116.7	3.67	9.33	121.2	3.73	9.53	136.3	3.98	10.04
	70	56.9	1.96	8.52	66.7	2.26	8.67	70.9	2.39	8.71	84.9	2.73	9.13	98.9	3.01	9.64	108.8	3.17	10.07	113.0	3.22	10.28	127.0	3.44	10.82
	80	53.3	1.71	9.13	62.0	1.96	9.31	65.8	2.06	9.36	78.2	2.34	9.81	90.7	2.57	10.35	99.4	2.70	10.81	103.1	2.74	11.02	115.5	2.92	11.60
3850	60	59.0	2.19	7.90	70.3	2.57	8.02	75.1	2.72	8.09	91.2	3.18	8.40	107.4	3.56	8.85	118.7	3.78	9.25	123.5	3.84	9.44	139.6	4.03	10.16
	70	56.5	1.95	8.52	66.0	2.25	8.65	72.1	2.42	8.73	87.8	2.83	9.08	103.4	3.17	9.57	114.0	3.30	9.99	119.0	3.43	10.19	134.6	3.60	10.94
	80	53.5	1.72	9.13	64.4	2.03	9.29	69.0	2.16	9.38	84.5	2.54	9.76	100.0	2.85	10.28	110.9	3.03	10.72	115.5	3.10	10.93	131.0	3.28	11.72
4100	60	49.2	1.76	8.21	62.4	2.20	8.32	68.0	2.38	8.40	86.9	2.92	8.72	105.7	3.38	9.18	118.9	3.64	9.58	124.5	3.74	9.77	143.4	4.01	10.49
	70	52.9	1.76	8.82	64.9	2.12	8.96	70.1	2.27	9.04	87.3	2.72	9.40	104.5	3.10	9.89	116.6	3.32	10.31	121.8	3.40	10.52	139.0	3.62	11.27
	80	53.2	1.65	9.43	64.7	1.98	9.60	69.6	2.11	9.69	85.9	2.50	10.08	102.3	2.83	10.60	113.7	3.02	11.05	118.6	3.09	11.26	135.0	3.28	12.06

Notes: 1) H.C. = Heating Capacity in kBtu/h; COP = Coefficient of Performance; kW = Kilowatts
 2) Ratings are based on the Factory Standard blower drive combination
 3) For 208-230V Units, the ratings shown reflect 230V operation
 4) Bolded Values indicate AHRI rating points

EXPANDED HEATING PERFORMANCE

Q6SP-090 Series Blower Performance

BLOWER PERFORMANCE - DOWNFLOW -090 SERIES

Model	Motor Sheave Position	External Static Pressures (Inches Water Column)															
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
Q6SP-090 (1.5 HP) Standard Low Static Drive Kit	Fully Closed	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
	4 Turns Open																
Q6SP-090 (3 HP) High Static Drive Kit	Fully Closed	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
	4 Turns Open																

BLOWER PERFORMANCE - HORIZONTAL FLOW -090 SERIES

Model	Motor Sheave Position	External Static Pressures (Inches Water Column)															
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
Q6SP-090 (1.5 HP) Standard Low Static Drive Kit	Fully Closed	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
	4 Turns Open																
Q6SP-090 (3 HP) High Static Drive Kit	Fully Closed	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw	CFM/RPM	Kw
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
	4 Turns Open																

NOTES: Boldface type indicates factory recommended blower operating range.

Values include losses for air filters, unit casing, and dry evaporator coil.

See Accessory Performance Data table for additional static pressure information.

Values can be approximated for 1/2 turn increments by interpolating between lines.

Deduct 250 CFM from value shown for equipment installed with H5HK electric heat kits.

Low Static Drive Consists of: 1.5 Hp Motor; 1VP44 Motor Sheave; BK 95 Blower Pulley & B-52 belt.

High Static Drive Consists of: 3 Hp Motor; 1VP44 Motor Sheave; BK 72 Blower Pulley & B-51 belt.

Q6SP-120 Series Blower Performance

BLOWER PERFORMANCE - DOWNFLOW - 120 SERIES

Model	Motor Sheave Position	External Static Pressures (Inches Water Column)															
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
Q6SP-120 (2 HP) Standard Low Static Drive Kit	Fully Closed	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM
	1/2 Turn Open																
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
Q6SP-120 (3 HP) High Static Drive Kit	Fully Closed	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM
	1/2 Turn Open																
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																

BLOWER PERFORMANCE - HORIZONTAL FLOW -120 SERIES

Model	Motor Sheave Position	External Static Pressures (Inches Water Column)															
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6
Q6SP-120 (2 HP) Standard Low Static Drive Kit	Fully Closed	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM
	1/2 Turn Open																
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																
Q6SP-120 (3 HP) High Static Drive Kit	Fully Closed	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM	RPM	Kw	CFM
	1/2 Turn Open																
	1 Turn Open																
	2 Turns Open																
	3 Turns Open																

NOTES: Boldface type indicates factory recommended blower operating range.
 Values include losses for air filters, unit casing, and dry evaporator coil.
 See Accessory Performance Data table for additional static pressure information.
 Values can be approximated for 1/2 turn increments by interpolating between lines.
 Deduct 250 CFM from value shown for equipment installed with H5HK electric heat kits.

Low Static Drive Consists of: 2 Hp Motor; 1VP40 Motor Sheave; BK 75 Blower Pulley & B-49 belt.
 High Static Drive Consists of: 3 Hp Motor; 1VP50 Motor Sheave; BK 75 Blower Pulley & B-51 belt.

Electric Heat Table

Model Number	Allowable Voltage Range		Compressors			Outdoor motors (2) ea.	Indoor Motor	Mult. Circ. “A” †		Single Circuit - Q6SP & H5HK kit							
								MCA	MOP	MCA				MOP			
Factory Drive Data:																	
Q6SP	Min	Max	Qty	RLA	LRA	FLA	FLA	No Heater Kit	9 kW	18 kW	30 kW	35 kW	9 kW	18 kW	30 kW	35 kW	
-090 C	187	253	2 ea.	13.1	83.1	2.3	4.2 - 4.0	39 - 39	50 - 50	49 - 52	71 - 78	101 - 112	116 - 130	55 - 55	80 - 80	110 - 125	125 - 150
-090 D	414	506	2 ea.	6.1	41	1.2	2.0	19	20	27	40	56	65	30	45	60	70
-120 C	187	253	2 ea.	15.6	110	2.3	6.2 - 5.8	46 - 46	60 - 60	54 - 57	76 - 83	106 - 117	121 - 135	60 - 60	80 - 90	110 - 125	125 - 150
-120 D	414	506	2 ea.	7.8	52	1.2	2.9	23	30	30	43	59	68	35	45	60	70
High Static Drive Data:																	
-090 C	187	253	2 ea.	13.1	83.1	2.3	9.1 - 8.9	44 - 44	55 - 55	54 - 57	76 - 83	106 - 117	121 - 135	60 - 60	80 - 90	110 - 125	125 - 150
-090 D	414	506	2 ea.	6.1	41	1.2	4.4	21	25	30	42	58	67	35	45	60	70
-120 C	187	253	2 ea.	16.0	110	2.3	9.1 - 8.9	49 - 49	60 - 60	57 - 61	79 - 86	109 - 120	124 - 138	60 - 70	80 - 90	110 - 125	125 - 150
-120 D	414	506	2 ea.	7.8	52	1.2	4.4	25	30	32	44	60	69	35	45	70	70

Notes: FLA = Full Load Amps
RLA = Rated Load Amps
LRA = Locked Rotor Amps

MCA = Minimum Circuit Ampacity
MOP = Maximum Over-Current Protection

C Series, Electrical unit data shown for 208V - 230V
D Series, Electrical unit data shown for 460V

† When used with 917468 Dual Circuit Adapter Kit - See H5HK Elec. Data Table for Multiple Circuit "B" data

Accessory Performance Data

Model No.	Air Volume (CFM)	Total Resistance (inches water column)								Flush Mount Diffuser System	Throw Feet*
		Wet Evaporator Coil	Downflow Economizer	Horizontal Economizer	Step Down Diffuser System						
					2 Ends Open	2 Ends Open w/1 Side Open	2 Ends Open w/2 Sides Open	Throw Feet*			
Q6SP-090	2600	0.12	0.30	0.04	0.20	0.20	0.15	24-29	0.17	19-24	
	2800	0.14	0.35	0.04	0.25	0.25	0.20	25-30	0.20	20-28	
	3000	0.16	0.40	0.04	0.30	0.30	0.25	27-33	0.25	21-29	
	3200	0.18	0.45	0.05	0.40	0.38	0.30	28-35	0.31	22-29	
	3400	0.20	0.50	0.05	0.50	0.46	0.40	30-37	0.37	22-30	
	3600	0.22	0.55	0.05	0.60	0.55	0.50	32-39	0.43	23-31	

Model No.	Air Volume (CFM)	Total Resistance (inches water column)								
		Wet Evaporator Coil	Downflow Economizer	Horizontal Economizer	Step Down Diffuser System				Flush Mount Diffuser System	Throw Feet*
					2 Ends Open	2 Ends Open w/1 Side Open	2 Ends Open w/2 Sides Open	Throw Feet*		
Q6SP-120	3600	0.12	0.20	0.04	0.35	0.25	0.20	25-33	0.17	22-29
	3800	0.13	0.22	0.04	0.40	0.30	0.25	27-35	0.18	22-30
	4000	0.14	0.24	0.04	0.45	0.35	0.30	29-37	0.21	24-33
	4200	0.16	0.27	0.05	0.50	0.40	0.35	32-40	0.24	26-35
	4400	0.18	0.30	0.05	0.55	0.45	0.40	34-42	0.27	28-37
	4600	0.20	0.33	0.05	0.60	0.50	0.45	36-44	0.30	30-39

Bold italicized numbers indicate factory blower setting.

* The distance the air from the grille travels from the diffuser before it slows down to 50 ft. per minute. All sides open.

Electrical Data - H5HK Series Heater Kits

Heater Kit Electrical Data @ Rated Voltage 3 Phase, 60 Hertz				Multiple Circuit "B" †	
Rated Volts	Model Number	Line Amps	Heater Watts	Minimum	Maximum
				Circuit Ampacity	Over-Current Rating
208V	H5HK-009Q	18.8	6,760	24	25
	H5HK-018Q	36.3	13,069	46	50
	H5HK-030Q*	60.0	21,632	76	80
	H5HK-035Q*	72.6	26,139	91	100
240V	H5HK-009Q	21.7	9,000	28	30
	H5HK-018Q	41.9	17,400	53	55
	H5HK-030Q*	69.3	28,800	87	90
	H5HK-035Q*	83.7	34,800	105	110
480V	H5HK-009S	11.9	9,900	15	20
	H5HK-018S	21.7	18,000	28	30
	H5HK-030S*	34.6	28,800	44	45
	H5HK-035S*	41.9	34,800	53	55

† When used with 917468 kit, See applicable unit chart for Multiple Circuit "A" data

IMPORTANT:

High Static Applications of the H5HK 30 kW & 35 kW kits. When installing the 30 kW & 35 kW H5HK Heater Kits in the Q6SP series packaged heat pumps and in conjunction with a high static drive kit; or on duct systems where the unit ESP is greater than 0.75 in-W.C. for the 7.5T units or 0.9 in-W.C. for 10T units; then the heater kit will require a 920998 accessory kit.

ACCESSORIES

NORDYNE Part#	Description	Q6SP -090	Q6SP -120
547881	Horizontal Supply & Return Kit	X	X
547860	Hinged Roof Curb 8" High - K/D	X	X
547861	Hinged Roof Curb 14" High - K/D	X	X
547862	Hinged Roof Curb 18" High - K/D	X	X
547863	Hinged Roof Curb 24" High - K/D	X	X
547874	0-35% Manual Outside Air Damper	X	X
547865	0-35% Motorized Damper - Only (Requires 547874 Manual or Outside Air Damper Kit)	X	X
547848	CO2 Sensor for economizer control - 4-9v dc (Wall Mount)	X	X
559374	Economizer - Modulating w/ Relief, Adapts Horizontal	X	X
920233	Sensor, Enthalpy, C7400A (For Economizer Differential Enthalpy Control)	X	X
547876	Power Exhaust - Prop (208/230v/3ph), Adapts Horizontal (see note below)	X	X
547877	Power Exhaust - Prop (460v/3ph), Adapts Horizontal (see note below)	X	X
547878	18" x 28" Supply & Return Transition	X	X
547879	18" x 28" Flush Mount Concentric Diffuser	X	X
547880	18" x 28" Step Down Concentric Diffuser	X	X
547869	20" Supply & Return Transition Round	X	X
547870	20" Flush Mount Concentric Diffuser Round	X	X
547871	20" Step Down Concentric Diffuser Round	X	X
558857	Hooded Hail Guard	X	X
558863	Duct Smoke Detector Photo Elect.	X	X
547893	Duct Smoke Detector, Remote Multi-signal control SSK 451	X	X
558864	Smoke Detector Sampling Tube DST3, 2-4 ft.	X	X
558865	Smoke Detector Sampling Tube DST5, 4-8 ft.	X	X
917454	Bottom Power Entry Kit	X	X
917423A	H5HK009Q-01, 208/240V	X	X
920616	H5HK009S-01 480V	X	X
917424A	H5HK018Q-11 208/240V	X	X
917426A	H5HK018S-01 480V	X	X
920615	H5HK030S-01 480V	X	X
920614	H5HK030Q-22 208/240V	X	X
917425A	H5HK035Q-22 208/240V	X	X
917427A	H5HK035S-01 480V	X	X
920998	30 & 35 kW in High Static Applications 7.5 ton > .75" W.C. ESP, 10 Ton > .90" W.C. ESP	X	X
917468	3 Pole Dual Circuit Adaptor Kit	X	X
920619	Thermostat-3 Stage Heat/2 Stage Cool (requires "O" terminal)	X	X

Note: Power exhaust requires separate branch circuit

NORDYNE Part#	Volts	HP	cfm	FLA	Fuse	MCA	MOP
547876	230	3/4	4900	4	9A	5	9
547877	460	3/4	4900	2	4A	2.5	4.5
547891	575	3/4	4900	1.5	3A	1.88	3.38



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503D-0110 (Replaces 503D-1009)