

Q7RE Series

Single Packaged Heat Pump, Single Phase

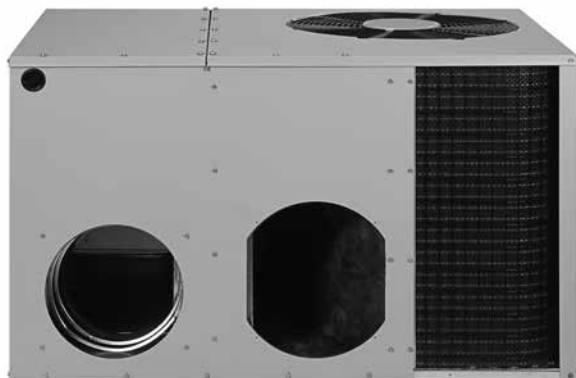
14 SEER, 8.0 HSPF

2 thru 5 Ton Units

Cooling: 23,400 to 55,500 Btuh

Heating: 21,800 to 56,000 Btuh

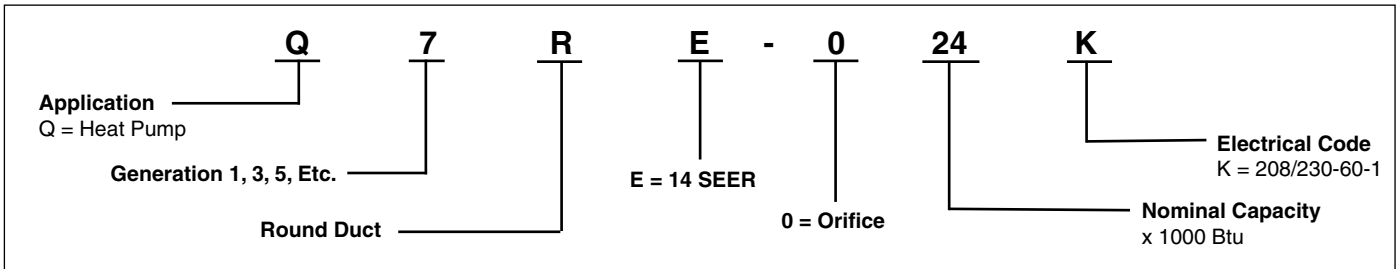
The Q7 Series single packaged heat pumps are high efficiency self contained cooling and heating units that can be installed on a slab or on a roof. Units are ETL and ETLc listed.



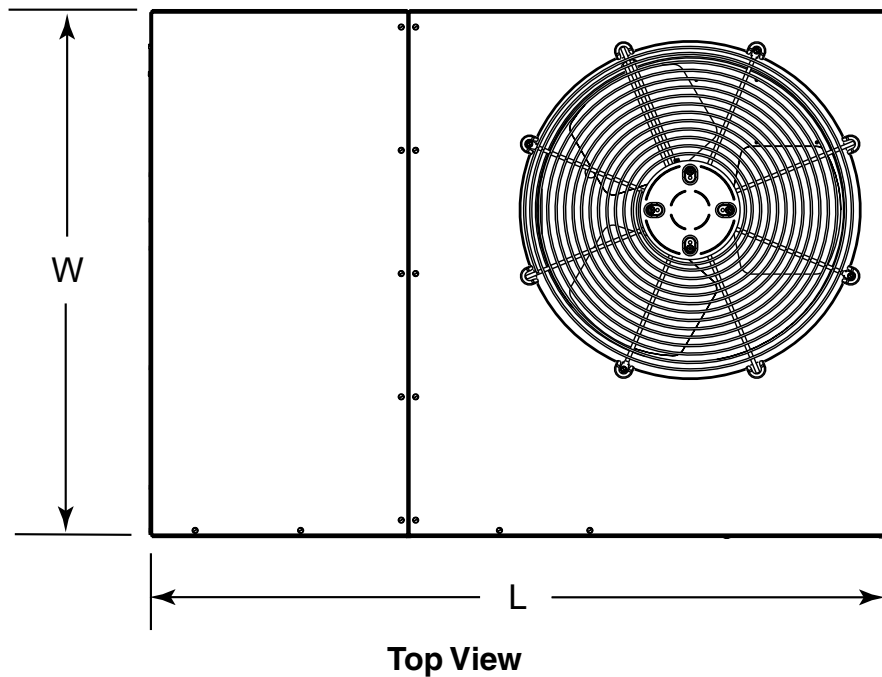
FEATURES and BENEFITS

- **First in Industry Patented Hot Gas Defrost:** Ensures complete, worry-free defrost.
- **Quality Compressor:** State of the art compressor is standard equipment.
- **Hi/Low Pressure Switches:** Ensure long compressor life.
- **All Aluminum Coils:** Provides high corrosion resistance, lower refrigerant volume.
- **Designed Using Galvanized Steel:** With a polyester urethane coat finish. The finish passes 950 hours of salt spray per ASTM Std. B117.
- **Compact Footprint and Profile:** Make the Q7 Series easy to transport and install.
- **0" Clearance:** To combustibles on duct side of the unit allows for installations in tight areas.
- **Wire Guard Powder Coated and Plastic Mesh Hail Guard:** A guard that will never rust and protects the unit's coil from being damaged.
- **Raised Base Pan:** Allows water to drain away from away from the unit.
- **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.
- **Easy Access:** To the evaporator coil and blower assembly for cleaning and general maintenance.
- **Removable Top Grille Assembly:** Allows ease of service to the fan motor.
- **Five Minute Restart Time Delay:** When the units shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause of compressor failure.
- **Liquid Line Filter Drier:** Factory installed at a convenient location for service.
- **Accessible Service Valves:** Simplify servicing of the refrigeration system.
- **Suction Accumulator:** Provides protection from liquid flood back and future compressor failures.
- **Permanently Lubricated Condenser Motor:** A heavy duty PSC motor for long lasting reliability and quiet operation.
- **Low Voltage Transformer:** Includes 3 Amp fuse to protect low voltage circuit.
- **Drain Trap Included:** Design optimizes drainage capabilities.
- **Optional Electric Heat:** Field installed 5 – 20 KW.

MODEL IDENTIFICATION CODE



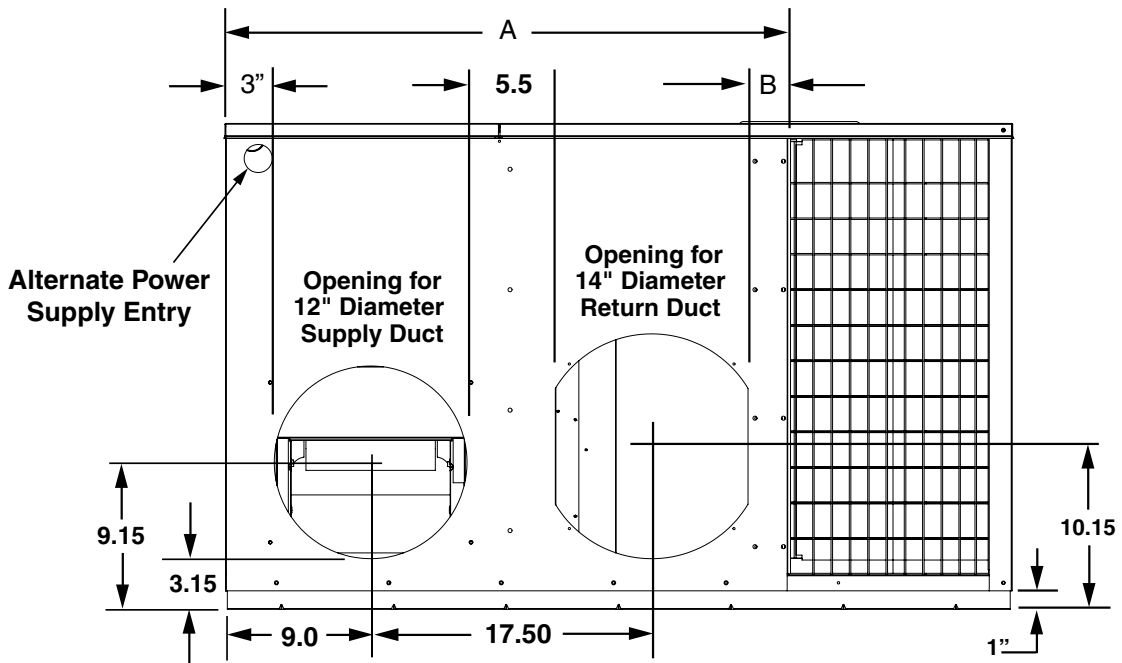
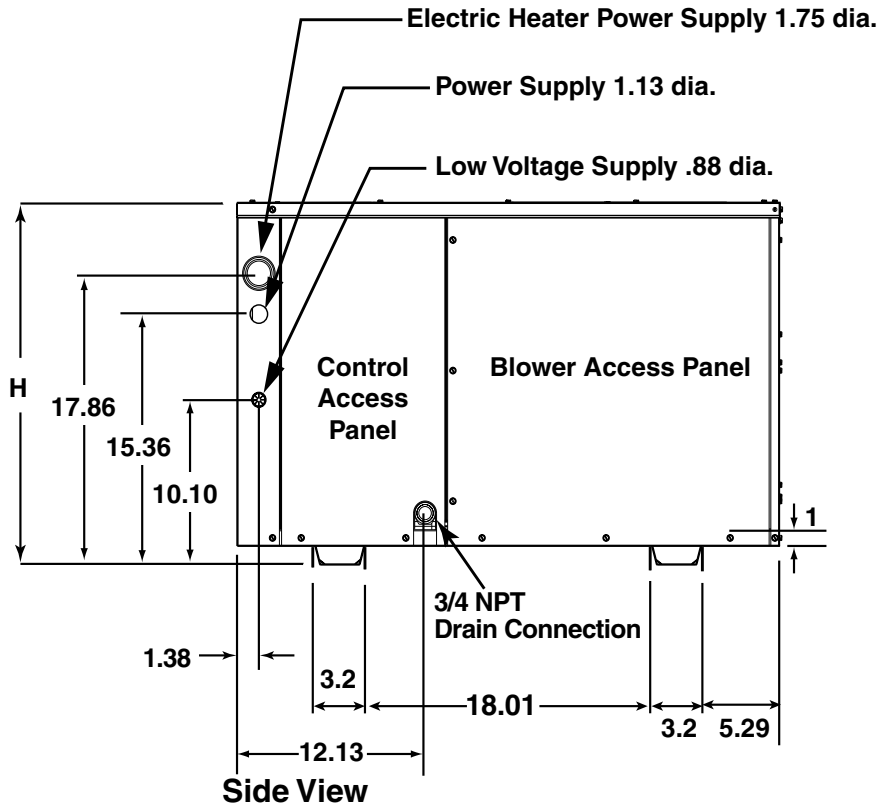
DIMENSIONS (all in lbs. and inches)



Model No. Q7RE	Weight		(L) Length	(W) Width	(H) Height	A	B
	Shipping	Net					
024K	277	263	49	35	30.2	35.02	2.48
030K	281	267	49	35	30.2	35.02	2.48
036K	277	263	49	35	30.2	35.02	2.48
042K	308	274	49	35	30.2	35.02	2.48
048K	375	330	63	35	38.2	35.02	2.48
060K	375	359	63	35	38.2	35.02	2.48

DIMENSIONS Continued (all in inches)

Model Number Q7RE-	Return Diameter	Supply Diameter
024K	14	12
030K	14	12
036K	14	12
042K	14	12
048K	14	12
060K	14	12



Back (Duct) View (2-5 Ton)

PHYSICAL SPECIFICATIONS

Q7RE Models

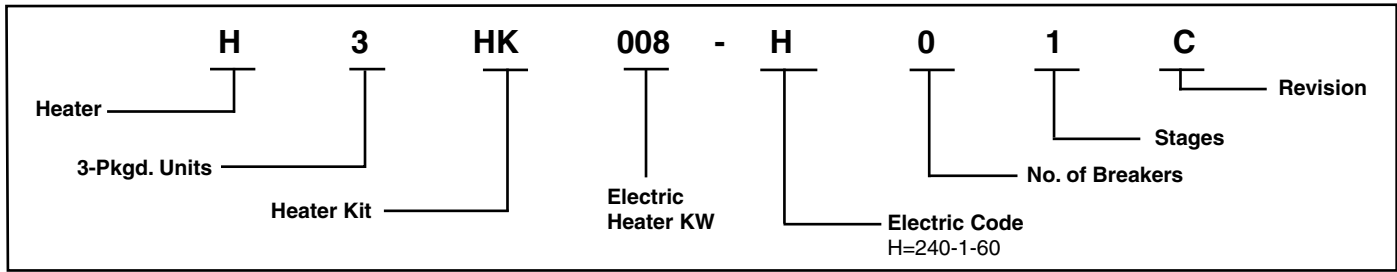
Model No. Q7RE-	024K	030K	036K	042K	048K	060K
System Heating and Cooling Capacities						
Cooling Btuh	23,200	28,200	34,400	40,500	47,500	55,500
SEER	14	14	14	14	14	14
EER	11	11	11	11	11	11
Heating Btuh	21,800	27,400	34,800	39,000	46,000	56,000
HSPF	8	8	8	8	8	8
Electric Rating — 60 Hz (a)						
Operating Voltage Range	187 - 253	187 - 253	187 - 253	187 - 253	187 - 253	187 - 253
Min. Circuit Ampacity (a)	15.3	17.3	28.2	31.9	37.3	42.2
Delay Fuse — Max. (b)	20	25	45	50	60	60
Total Unit — AMPS	13.2	14.8	23.5	26.9	31.2	35.6
Compressor						
Volts	208 - 230	208 - 230	208 - 230	208 - 230	208 - 230	208 - 230
Rated Load Amps	8.3	9.9	18.6	20	24.3	26.4
Lock Rotor Amps	50	69	79	112	117	152.5
Condenser Motor						
Fan Motor — HP - RPM	1/8 - 1100	1/8 - 1100	1/8 - 1100	1/4 - 1100	1/4 - 1100	1/2 - 1100
Fan Motor — Amps	1.1	1.1	1.1	1.5	1.5	3.8
Evaporator Motor						
Blower Motor — HP - ECM	1/2	1/2	1/2	3/4	3/4	3/4
Blower Motor — Amps	3.8	3.8	3.8	5.4	5.4	5.4
Refrigerant (R410-A) — Oz.						
	79.0	83.8	70.4	80.0	101.0	124.8
Net Weight -- lbs						
	263	267	263	274	330	359
Shipping Weight -- lbs						
	277	281	277	288	346	375
Sound Ratings						
	74	74	74	76	79	79

- (a) Amperage and wire size based on refrigeration system only with 60° C wire, 50 ft. length. See Electrical Data tables for supplemental electric heaters. Refer to National Electric Code for additional derating factors for field installed conductors.
- (b) Use time delay fuse or "HACR" type circuit breaker.

ELECTRICAL DATA

Model Number Q7RE-	Heater kW	MCA	MOP	Circuit A (Compressor, Blower & Fan)		Circuit B (Heater Only)		Circuit C (Heater Only)	
				MCA	MOP	MCA	MOP	MCA	MOP
024K	0	15.3	20.0	-	-	-	-	-	-
	5	40.3	45.0	-	-	-	-	-	-
	8	54.9	60.0	15.3	20	39.6	40	-	-
	10	65.3	70.0	15.3	20	50	60	-	-
030K	0	17.3	25.0	-	-	-	-	-	-
	5	42.3	45.0	-	-	-	-	-	-
	8	56.9	60.0	17.3	25	39.6	40	-	-
	10	67.3	70.0	17.3	25	50	60	-	-
	15	92.3	100	42.3	45	50	60	-	-
036K	0	28.2	45.0	-	-	-	-	-	-
	5	53.2	60.0	-	-	-	-	-	-
	8	67.7	70.0	28.2	45	39.6	40	-	-
	10	78.2	80.0	28.2	45	50	60	-	-
	15	103.2	110	53.2	60	50	60	-	-
042K	0	31.9	50.0	-	-	-	-	-	-
	5	56.9	70.0	-	-	-	-	-	-
	8	71.5	80.0	31.9	50	39.6	40	-	-
	10	81.9	90.0	31.9	50	50	60	-	-
	15	106.9	110	56.9	70	50	60	-	-
	20	131.9	150	-	-	-	-	-	-
	20(3 circuit)	-	-	31.9	50	50	60	50	60
048K	0	37.3	60.0	-	-	-	-	-	-
	5	62.3	80.0	-	-	-	-	-	-
	8	76.9	90.0	37.3	60	39.6	40	-	-
	10	87.3	100.0	37.3	60	50	60	-	-
	15	112.3	125	62.3	80	50	60	-	-
	20	137.3	150	-	-	-	-	-	-
	20(3 circuit)	-	-	37.3	60	50	60	50	60
060K	0	42.2	60.0	-	-	-	-	-	-
	5	67.2	80.0	-	-	-	-	-	-
	8	81.8	100.0	42.2	60	39.6	40	-	-
	10	92.2	100.0	42.2	60	50	60	-	-
	15	117.2	125	67.2	80	50	60	-	-
	20	142.2	150	-	-	-	-	-	-
	20(3 circuit)	-	-	42.2	60	50	60	50	60

HEATER KIT MODEL IDENTIFICATION CODE



Q7RE Heater Kit Application Matrix				
Tonnage	Nominal kW	Heater Kit Model	Heater Kit Part Number	Breakers (required)
024K	5	H3HK005H-01C	917166C	None
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
030K	5	H3HK005H-01C	917166C	None
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
	15	H3HK015H-01C	917169C	2
	15	H3HK015H-21C	917172C	None
036K	5	H3HK005H-01C	917166C	None
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
	15	H3HK015H-01C	917169C	2
	15	H3HK015H-21C	917172C	None
042K	5	H3HK005H-01C	917166C	None
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
	15	H3HK015H-01C	917169C	2
	15	H3HK015H-21C	917172C	None
	20	H3HK020H-01C	917170C	3
	20	H3HK020H-21C	917173C	1
048K	5	H3HK005H-01C	917166C	2
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
	15	H3HK015H-01C	917169C	2
	15	H3HK015H-21C	917172C	None
	20	H3HK020H-01C	917170C	3
	20	H3HK020H-21C	917173C	1
060K	5	H3HK005H-01C	917166C	2
	8	H3HK008H-01C	917167C	2
	10	H3HK010H-01C	917168C	2
	15	H3HK015H-01C	917169C	2
	15	H3HK015H-21C	917172C	None
	20	H3HK020H-01C	917170C	3
	20	H3HK020H-21C	917173C	1

ACCESSORIES

Description	Part Number
4-Pole single circuit adaptor	913350
6-Pole single circuit adaptor	913556
Circuit Breaker Single Phase (2-pole)	913554
Duct collars - 12"	250101R
Duct collars - 14"	250102R
High Wind Kit	1013934

AIR FLOW DATA

CFM / HEAT RISE DATA (Based on Nominal 10kw Electric Heat Kit)																	
Q7RE Unit	Blower Setting	External Static Pressure Drop - inches water column															
		0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8	
		CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE	CFM	HEAT RISE
024K	Tap T1*	930	34	875	36	818	39	761	42	704	45	645	49	585	54	525	60
	Tap T2	1158	27	1119	28	1076	29	1028	31	977	32	921	34	861	37	796	40
	Tap T3**	1308	24	1271	25	1230	26	1185	27	1136	28	1084	29	1027	31	967	33
	Tap T4	1440	22	1406	22	1368	23	1326	24	1281	25	1232	26	1179	27	1122	28
	Tap T5	1622	19	1587	20	1550	20	1510	21	1467	22	1422	22	1373	23	1323	24
030K	Tap T1	930	34	875	36	818	39	761	42	704	45	645	49	585	54	525	60
	Tap T2*	1158	27	1119	28	1076	29	1028	31	977	32	921	34	861	37	796	40
	Tap T3**	1308	24	1271	25	1230	26	1185	27	1136	28	1084	29	1027	31	967	33
	Tap T4	1440	22	1406	22	1368	23	1326	24	1281	25	1232	26	1179	27	1122	28
	Tap T5	1622	19	1587	20	1550	20	1510	21	1467	22	1422	22	1373	23	1323	24
036K	Tap T1	1158	27	1119	28	1076	29	1028	31	977	32	921	34	861	37	796	40
	Tap T2	1308	24	1271	25	1230	26	1185	27	1136	28	1084	29	1027	31	967	33
	Tap T3*	1266	25	1332	24	1291	24	1245	25	1192	27	1132	28	1067	30	995	32
	Tap T4**	1518	21	1481	21	1442	22	1400	23	1355	23	1307	24	1256	25	1202	26
	Tap T5	1686	19	1644	19	1601	20	1556	20	1509	21	1460	22	1410	22	1358	23
042K	Tap T1	1339	24	1297	24	1254	25	1210	26	1166	27	1121	28	1075	29	1029	31
	Tap T2**	1459	22	1422	22	1383	23	1342	24	1300	24	1256	25	1211	26	1164	27
	Tap T3*	1569	20	1530	21	1491	21	1451	22	1410	22	1368	23	1325	24	1282	25
	Tap T4	1709	18	1674	19	1638	19	1601	20	1562	20	1521	21	1479	21	1436	22
	Tap T5	1820	17	1785	18	1748	18	1710	18	1671	19	1630	19	1589	20	1545	20
048K	Tap T1**	1418	22	1385	23	1351	23	1316	24	1279	25	1242	25	1203	26	1163	27
	Tap T2	1530	21	1500	21	1467	22	1433	22	1396	23	1358	23	1318	24	1275	25
	Tap T3*	1679	19	1645	19	1611	20	1576	20	1541	21	1505	21	1469	22	1432	22
	Tap T4	1787	18	1757	18	1726	18	1693	19	1658	19	1621	19	1582	20	1542	20
	Tap T5	2006	16	1973	16	1939	16	1905	17	1870	17	1834	17	1798	18	1761	18
060K	Tap T1**	1214	26	1142	28	1067	30	997	32	905	35	794	40	700	45	742	43
	Tap T2	1713	18	1625	19	1547	20	1451	22	1360	23	1261	25	1165	27	1028	31
	Tap T3	2153	15	2063	15	1983	16	1884	17	1799	18	1700	19	1604	20	1482	21
	Tap T4*	2359	13	2250	14	2159	15	2053	15	1935	16	1839	17	1710	18	1576	20
	Tap T5	2457	13	2355	13	2265	14	2166	15	2068	15	1956	16	1837	17	1726	18

* Denotes factory set cooling & heating

** Denotes factory set electric HEAT speed (10KW)

Heat rise

$$\text{Btu/h} = \text{CFM} \times \Delta T \times 1.08$$

$$\Delta T = (\text{Btu/h}) / (\text{CFM} \times 1.08)$$

Conversion	
KW/h to Btu/h	3412.1
KW/h	Btu/h
5	17061
8	27297
10	34121
15	51182
20	68243

HEAT PUMP COOLING EXPANDED RATINGS (CONTINUED)

Q7RE-048K

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.
1400	80	62	49.1	42.2	2.69	47.7	40.8	3.09	46.2	39.4	3.48	44.8	37.9	3.88	43.4	36.5	4.27	41.9	35.0	4.67
	80	67	53.0	35.1	2.84	51.6	33.6	3.23	50.1	32.2	3.63	48.7	30.7	4.02	47.3	29.3	4.42	45.8	27.9	4.81
	80	72	57.4	28.4	2.76	56.0	26.9	3.16	54.5	25.5	3.55	53.1	24.1	3.95	51.6	22.6	4.34	50.2	21.2	4.74
	75	62	46.5	37.8	2.67	45.1	36.3	3.07	43.7	34.9	3.46	42.2	33.5	3.86	40.8	32.0	4.25	39.4	30.6	4.64
1500	80	62	48.8	43.4	2.75	47.4	41.9	3.15	46.0	40.5	3.54	44.5	39.0	3.94	43.1	37.6	4.33	41.7	36.2	4.73
	80	67	52.7	36.2	2.90	51.3	34.7	3.29	49.9	33.3	3.69	48.4	31.9	4.08	47.0	30.4	4.48	45.6	29.0	4.87
	80	72	57.1	29.5	2.82	55.7	28.1	3.22	54.3	26.6	3.61	52.8	25.2	4.01	51.4	23.8	4.40	49.9	22.3	4.80
	75	62	46.3	38.9	2.73	44.8	37.5	3.12	43.4	36.0	3.52	42.0	34.6	3.91	40.5	33.2	4.31	39.1	31.7	4.70
1600	80	62	49.1	45.0	2.82	47.7	43.6	3.21	46.2	42.1	3.61	44.8	40.7	4.00	43.3	39.3	4.40	41.9	37.8	4.79
	80	67	53.0	37.8	2.96	51.5	36.4	3.36	50.1	35.0	3.75	48.7	33.5	4.15	47.2	32.1	4.54	45.8	30.7	4.94
	80	72	57.4	31.2	2.89	55.9	29.7	3.28	54.5	28.3	3.68	53.1	26.8	4.07	51.6	25.4	4.47	50.2	24.0	4.86
	75	62	46.5	40.6	2.80	45.1	39.1	3.19	43.6	37.7	3.59	42.2	36.2	3.98	40.8	34.8	4.37	39.3	33.4	4.77

Q7RE-060K

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.
1570	80	62	61.9	51.3	3.11	55.3	48.9	3.52	49.8	46.6	3.93	45.5	44.2	4.33	42.4	41.8	4.74	40.5	39.5	5.15
	80	67	69.8	43.9	3.2	63.1	41.6	3.61	57.7	39.2	4.01	53.4	36.8	4.42	50.3	34.4	4.83	48.4	32.1	5.23
	80	72	78.8	36.5	3.28	72.2	34.2	3.69	66.7	31.8	4.1	62.4	29.4	4.51	59.3	27.1	4.91	57.4	24.7	5.32
	75	62	77.3	43.3	3.11	66.9	40.9	3.52	57.6	38.5	3.92	49.5	36.2	4.33	42.6	33.8	4.74	36.9	31.4	5.14
1690	80	62	53.4	53.4	3.24	46.7	46.7	3.64	41.3	41.3	4.05	37.0	37.0	4.46	33.9	33.9	4.86	32.0	32.0	5.27
	80	67	61.2	46.1	3.32	54.6	43.7	3.73	49.1	41.3	4.14	44.9	38.9	4.54	41.7	36.6	4.95	39.8	34.2	5.36
	80	72	70.3	38.7	3.41	63.7	36.3	3.82	58.2	33.9	4.22	53.9	31.5	4.63	50.8	29.2	5.04	48.9	26.8	5.44
	75	62	68.8	45.4	3.23	58.4	43.0	3.64	49.1	40.6	4.05	41.0	38.3	4.45	34.1	34.1	4.86	28.3	28.3	5.27
1810	80	62	62.6	53.8	3.36	55.9	51.4	3.77	50.5	49.0	4.17	46.2	46.2	4.58	43.1	43.1	4.99	41.1	41.1	5.39
	80	67	70.4	46.4	3.45	63.8	44.0	3.85	58.3	41.6	4.26	54.0	39.2	4.67	50.9	36.9	5.07	49.0	34.5	5.48
	80	72	79.5	39.0	3.53	72.8	36.6	3.94	67.4	34.2	4.35	63.1	31.9	4.75	60.0	29.5	5.16	58.1	27.1	5.57
	75	62	78.0	45.7	3.36	67.5	43.3	3.76	58.3	41.0	4.17	50.2	38.6	4.58	43.3	36.2	4.99	37.5	33.8	5.39

HEAT PUMP HEATING EXPANDED RATINGS (CONTINUED)

Q7RE-048K

CFM		Indoor T. Deg.F		OUTDOOR TEMPERATURE (Deg. F)																				
				10			17			30			40			47			60			70		
				MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
1400	60	24.5	2.71	2.65	29.5	3.01	2.87	38.8	3.48	3.27	46.1	3.77	3.58	51.2	3.96	3.79	60.8	4.25	4.19	68.2	4.44	4.50		
	70	21.9	2.14	3.00	26.9	2.45	3.22	36.3	2.94	3.62	43.5	3.24	3.93	48.6	3.44	4.14	58.2	3.76	4.54	65.7	3.97	4.85		
	80	19.3	1.68	3.36	24.3	1.99	3.57	33.7	2.49	3.97	40.9	2.80	4.28	46.1	3.01	4.49	55.6	3.33	4.89	63.1	3.56	5.20		
1500	60	24.8	2.72	2.67	29.8	3.02	2.89	39.1	3.49	3.28	46.4	3.79	3.59	51.5	3.96	3.81	61.1	4.25	4.21	68.5	4.45	4.51		
	70	22.2	2.15	3.02	27.2	2.46	3.24	36.6	2.95	3.64	43.8	3.26	3.94	49.0	3.45	4.16	58.5	3.76	4.56	66.0	3.97	4.87		
	80	19.6	1.70	3.37	24.6	2.01	3.59	34.0	2.50	3.99	41.3	2.81	4.30	46.4	3.02	4.51	56.0	3.34	4.91	63.4	3.56	5.22		
1600	60	25.1	2.73	2.69	30.1	3.04	2.90	39.5	3.51	3.30	46.7	3.79	3.61	51.9	3.98	3.82	61.4	4.26	4.22	68.9	4.46	4.53		
	70	22.5	2.17	3.04	27.5	2.48	3.25	36.9	2.96	3.65	44.2	3.27	3.96	49.3	3.46	4.18	58.9	3.77	4.58	66.3	3.98	4.88		
	80	19.9	1.72	3.39	24.9	2.02	3.61	34.3	2.51	4.00	41.6	2.83	4.31	46.7	3.02	4.53	56.3	3.35	4.93	63.7	3.57	5.23		

Q7RE-060K

CFM		Indoor T. Deg.F		OUTDOOR TEMPERATURE (Deg. F)																				
				10			17			30			40			47			60			70		
				MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW	MBH	COP	kW
1530	60	26.3	2.67	3.03	32.1	2.89	3.26	43.0	3.30	3.69	51.4	3.62	4.01	57.3	3.85	4.24	68.2	4.32	4.67	76.6	4.58	5.00		
	70	24.1	2.18	3.43	30.0	2.40	3.66	40.9	2.82	4.09	49.3	3.13	4.41	55.1	3.36	4.64	66.0	3.77	5.07	74.4	4.09	5.91		
	80	21.9	1.69	3.83	27.8	1.91	4.06	38.7	2.33	4.48	47.1	2.64	4.81	53.0	2.87	5.04	63.9	3.28	5.46	72.3	3.60	5.79		
1650	60	26.6	2.76	3.00	32.5	2.99	3.23	43.4	3.40	3.65	51.8	3.72	3.98	57.7	3.94	4.21	68.6	4.36	4.63	77.0	4.68	4.96		
	70	24.5	2.27	3.40	30.3	2.50	3.63	41.2	2.91	4.05	49.6	3.23	4.38	55.5	3.45	4.61	66.4	3.87	5.03	74.8	4.19	5.36		
	80	22.3	1.78	3.80	28.2	2.01	4.03	39.1	2.42	4.45	47.5	2.74	4.78	53.3	2.96	5.01	64.2	3.38	5.43	72.6	3.70	5.76		
1770	60	27.0	2.86	2.97	32.9	3.08	3.20	43.8	3.50	3.62	52.2	3.82	3.95	58.1	4.04	4.18	69.0	4.46	4.60	77.4	4.78	4.93		
	70	24.8	2.37	3.36	30.7	2.59	3.59	41.6	3.01	4.02	50.0	3.33	4.35	55.9	3.55	4.57	66.8	3.97	5.00	75.2	4.29	5.33		
	80	22.7	1.88	3.76	28.5	2.10	3.99	39.4	2.52	4.42	47.8	2.84	4.74	53.7	3.06	4.97	64.6	3.48	5.40	73.0	3.80	5.72		



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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