

SYSTEM 1

KIMBROUGH HEIGHTS DUPLEX LOT 2 UNIT G

915SB


Heating Capacity and Efficiency		48080E17	60080E21	60100E21	66100E21	66120E24	66140E24
Input (BTUh)		80,000	80,000	100,000	100,000	120,000	140,000
Output (BTUh)		78,000	78,000	97,000	97,000	117,000	135,000
Certified Temperature Rise Range °F (°C)		40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	40 - 70 (22 - 39)	45 - 75 (25 - 42)
Airflow Capacity and Blower Data							
Rated External Static Pressure (in. w.c.)	Heating	0.12	0.12	0.15	0.15	0.20	0.20
	Cooling	0.50	0.50	0.50	0.50	0.50	0.50
Airflow Delivery @ Rated ESP (CFM)	Heating	1325	1330	1730	1785	2020	2130
	Cooling	1665	1855	2125	2065	2105	2310
Cooling Capacity (tons) @ CFM/ton	400 CFM/ton	4	5	5	5	5	5
	350 CFM/ton	4.50	5.50	6	5.5	6	6
Direct-Drive Motor Type		Electronically Commutated Motor (ECM)					
Direct-Drive Motor HP		3/4	1	1	1	1	1
Motor Full Load Amps		9.2	11.5	11.7	11.0	11.0	11.7
RPM Range		400 - 1200	400 - 1200	400 - 1200	400 - 1300	400 - 1300	400 - 1200
Speed Selections		5	5	5	5	5	5
Blower Wheel Dia x Width	in.	11 x 8	11 x 10	11 x 10	11 x 10	11 x 11	11 x 11
Air Filtration System		Field Supplied Filter					
Filter Used for Certified Watt Data		KGAWF**06UFR					
Electrical Data							
Input Voltage	Volts-Hertz-Phase	115-60-1					
Operating Voltage Range	Min-Max	104-127					
Maximum Input Amps	Amps	10	12.3	12.6	12.6	12.4	12.6
Unit Ampacity	Amps	13.4	16.3	16.7	16.7	16.7	16.7
Minimum Wire Size	AWG	14	12	12	12	12	12
Maximum Wire Length@ Minimum Wire Size	Feet	27	35	34	34	35	34
	(M)	(8.4)	(10.7)	(10.5)	(10.5)	(10.7)	(10.5)
Maximum Fuse/Ckt Bkr (Time-Delay Type Recommended)	Amps	15	20	20	20	20	20
Transformer Capacity (24vac output)		40 VA					
External Control Power Available	Heating	27.9 VA					
	Cooling	34.6 VA					
Controls							
Gas Connection Size		1/2" - NPT					
Burners (Monoport)		4	4	5	5	6	7
Gas Valve (Redundant)	Manufacturer	White Rodgers					
Minimum Inlet Gas pressure (in. wc)		4.50					
Maximum Inlet Gas pressure (in. wc)		13.60					
Manufactured (Mobile) Home Kit		See Accessory Listing					
Ignition Device		Silicon Nitride					
Heating Blower Control (Heating Off-Delay)		Adjustable: 90, 120, 150, 180 seconds					
Cooling Blower Control (Time Delay Relay)		90 seconds					
Communication System		none					
Thermostat Connections		Com 24V, R, W, G, Y					
Accessory Connections		EAC (115vac); HUM (24vac); 1-stg AC (via Y)					

AIR DELIVERY - CFM (BOTTOM RETURN WITH FILTER)

915SB

UNIT SIZE	WIRE LEAD COLOR	SPEED TAPS 2, 3 (Function)	EXTERNAL STATIC PRESSURE (IN.W.C.)									
			0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
30026E14	Black	Cooling. Do not use for heating	1045	1010	975	935	895	855	810	760	715	670
	Yellow	Alt Cooling or alt Heating	820	770	730	680	630	585	530	480	435	385
	Orange	Alt Cooling or alt Heating	655	600	550	495	435	385	335	265	-	-
	Blue ⁷	Heating or alt Cooling	605	545	490	435	375	335	255	-	-	-
	Red ⁷	Alt Cooling. Do not use for heating	480	415	360	305	235	-	-	-	-	-
30040E14	Gray	Cooling. Do not use for heating	1050	1025	1000	975	950	920	895	870	845	820
	Yellow	Alt Cooling. Do not use for heating	920	890	860	830	805	775	745	715	690	660
	Orange	Alt Cooling or alt Heating	735	700	665	630	595	555	525	490	450	415
	Blue	Heating or alt Cooling	695	660	625	590	555	515	480	445	405	370
	Red ⁷	Alt Cooling. Do not use for heating	540	495	455	410	365	320	280	235	-	-
36040E17	Gray	Cooling. Do not use for heating	1180	1140	1100	1055	1010	960	915	860	805	735
	Yellow	Alt Cooling. Do not use for heating	880	845	810	780	745	710	675	640	600	570
	Blue	Heating or alt Cooling	650	610	560	515	470	435	395	360	325	265
	Orange ⁷	Alt Cooling. Do not use for heating	525	460	405	350	320	275	210	-	-	-
	Red ⁷	Alt Cooling. Do not use for heating	515	420	350	310	270	205	-	-	-	-
36060E14	Gray	Cooling. Do not use for heating	1225	1200	1175	1145	1120	1095	1065	1040	1015	990
	Yellow	Alt Cooling. Do not use for heating	1105	1080	1050	1020	990	965	935	905	880	850
	Blue	Heating or alt Cooling	940	910	875	845	810	775	745	710	680	645
	Orange	Alt Cooling or alt Heating	725	690	650	610	570	530	490	445	405	365
	Red ⁷	Alt Cooling. Do not use for heating	545	495	445	395	345	295	245	-	-	-
42060E17	Gray	Cooling. Do not use for heating	1475	1445	1405	1370	1330	1290	1255	1215	1175	1140
	Yellow	Alt Cooling or alt Heating	1230	1190	1155	1120	1085	1050	1005	970	925	885
	Orange	Alt Cooling or alt Heating	1070	1030	990	950	920	875	840	800	755	715
	Blue	Heating or alt Cooling	1020	975	940	900	860	820	775	740	690	650
	Red	Alt Cooling. Do not use for heating	700	590	535	485	460	390	340	300	275	210
SYSTEM 1 48080E17	Gray ^{5,6}	Cooling. Do not use for heating	1820	1790	1755	1710	1665	1620	1570	1525	1480	1435
	Yellow	Alt Cooling or alt Heating	1455	1420	1380	1345	1310	1275	1240	1205	1170	1135
	Blue	Heating or alt Cooling	1335	1295	1260	1220	1185	1150	1110	1075	1040	1005
	Orange	Alt Cooling or alt Heating	1110	1065	1020	980	935	895	850	810	770	725
	Red ⁷	Alt Cooling. Do not use for heating	425	335	240	-	-	-	-	-	-	-
60080E21	Gray ^{5,6}	Cooling. Do not use for heating	2045	1995	1950	1900	1855	1805	1760	1710	1660	1615
	Yellow	Alt Cooling. Do not use for heating	1665	1625	1575	1530	1480	1435	1385	1340	1285	1240
	Orange	Alt Cooling or alt Heating	1475	1420	1370	1320	1270	1220	1170	1125	1070	1025
	Blue	Heating or alt Cooling	1345	1290	1235	1180	1130	1080	1025	975	935	885
	Red	Alt Cooling. Do not use for heating	1155	1080	1015	960	895	845	790	735	675	620
60100E21	Gray ^{5,6}	Cooling. Do not use for heating	2280	2240	2200	2165	2125	2085	2020	1910	1795	1665
	Yellow ^{5,6}	Alt Cooling. Do not use for heating	1860	1815	1775	1730	1690	1645	1605	1560	1515	1465
	Blue	Heating or alt Cooling	1755	1710	1665	1620	1580	1535	1485	1440	1390	1340
	Orange	Alt Cooling or alt Heating	1530	1480	1425	1380	1325	1275	1215	1160	1110	1060
	Red	Cooling. Do not use for heating	1340	1285	1230	1170	1110	1050	990	930	875	820
66100E21	Gray ^{5,6}	Cooling. Do not use for heating	2215	2180	2145	2105	2065	2025	1985	1940	1900	1860
	Yellow ^{5,6}	Alt Cooling. Do not use for heating	2115	2080	2035	2000	1960	1920	1880	1835	1790	1740
	Orange ^{5,6}	Alt Cooling. Do not use for heating	1975	1935	1890	1850	1805	1760	1720	1670	1620	1570
	Blue ^{5,6}	Heating or alt Cooling	1810	1765	1715	1670	1620	1570	1515	1460	1405	1355
	Red	Alt Cooling. Do not use for heating	1530	1475	1425	1360	1300	1240	1175	1115	1055	1000
66120E24	Gray ^{5,6}	Cooling. Do not use for heating	2310	2255	2205	2155	2105	2055	2005	1955	1910	1885
	Blue ^{5,6}	Heating or alt Cooling	2065	2020	1970	1915	1860	1805	1740	1690	1635	1580
	Yellow ^{5,6}	Alt Cooling or alt Heating	1850	1800	1745	1690	1640	1585	1530	1475	1420	1360
	Orange	Alt Cooling. Do not use for heating	1500	1440	1380	1320	1260	1205	1145	1085	1035	955
	Red	Alt Cooling. Do not use for heating	1070	960	875	805	710	630	560	490	420	355
66140E24	Gray ^{5,6}	Cooling. Do not use for heating	2505	2465	2425	2370	2310	2250	2180	2090	1955	1810
	Blue ^{5,6}	Heating or alt Cooling	2180	2130	2085	2035	1990	1945	1900	1850	1800	1755
	Yellow ^{5,6}	Alt Cooling or alt Heating	1910	1855	1810	1760	1705	1655	1605	1555	1505	1460
	Orange	Alt Cooling. Do not use for heating	1560	1505	1445	1380	1325	1265	1210	1155	1100	1040
	Red ⁷	Alt Cooling. Do not use for heating	855	760	665	565	470	385	305	-	-	-

NOTE:

- A filter is required for each return-air inlet. Airflow performance includes a 3/4-in. (19 mm) washable filter media such as contained in a factory-authorized accessory filter rack. See accessory list. To determine airflow performance without this filter, assume an additional 0.1 in. w.c. available external static pressure.
- ADJUST THE BLOWER SPEED TAPS AS NECESSARY FOR THE PROPER AIR TEMPERATURE RISE FOR EACH INSTALLATION.
- The "Function" column identifies which speed taps can be used for heating.
- If the same motor speed tap is needed for heating and cooling, a Jumper Wire accessory kit is available, see Product Data accessories for the current Jumper Wire accessory part number. Reference the "Start-up, Adjustments, and Safety Check" section of installation instructions for further Jumper Wire instructions.
- Airflows over 1800 CFM require bottom return, two-side return, or bottom and side return. A minimum filter size of 20" x 25" (508 x 635 mm) is required.
- For upflow applications, air entering from one side into both the side of the furnace and a return air base counts as a side and bottom return.
- The  indicates an unstable operating condition.

ANY CHANGE OR DEVIATION FROM THESE PLANS MUST BE APPROVED BY ARVADA BUILDING DEPARTMENT

THIS SET OF PLANS IS TO BE USED ON JOB AT ALL TIMES. REVISED FOR CODE COMPLIANCE 2020 NEC 2018 IRC

PERFORMANCE DATA (cont.)

COIL STATIC PRESSURE DROP (in. w.c.) R-410A and R-22 REFRIGERANTS

UNIT SIZE	Standard CFM																			
	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	
1814	Dry																			
	0.078	0.114	0.156	0.198	0.253															
1917	Wet																			
	0.096	0.138	0.183	0.213	0.277															
2414	Dry																			
	0.042	0.060	0.080	0.102	0.128															
2417	Wet																			
	0.055	0.076	0.104	0.127	0.158															
3014	Dry																			
	0.070	0.103	0.143	0.182	0.233	0.290	0.354													
3017	Wet																			
	0.089	0.128	0.171	0.214	0.269	0.336	0.413													
3117	Dry																			
	0.048	0.068	0.090	0.112	0.140	0.170	0.203													
3617	Wet																			
	0.064	0.091	0.122	0.150	0.188	0.224	0.263													
T3617	Dry																			
	0.065	0.097	0.135	0.173	0.223	0.278	0.339	0.405	0.478											
3621	Wet																			
	0.078	0.114	0.160	0.206	0.260	0.321	0.388	0.461	0.540											
3717	Dry																			
	0.042	0.060	0.080	0.102	0.128	0.157	0.188	0.222	0.259											
4217	Wet																			
	0.055	0.076	0.104	0.127	0.158	0.190	0.225	0.266	0.309											
T4221	Dry																			
	0.031	0.046	0.063	0.083	0.105	0.130	0.156	0.193	0.230											
4324	Wet																			
	0.039	0.056	0.075	0.097	0.121	0.149	0.179	0.212	0.249											
T4821	Dry																			
	0.043	0.061	0.082	0.103	0.128	0.157	0.189	0.221	0.259	0.299	0.341									
4824	Wet																			
	0.056	0.079	0.107	0.133	0.166	0.200	0.236	0.276	0.315	0.361	0.413									
T6024	Dry																			
	0.035	0.048	0.062	0.076	0.093	0.111	0.132	0.153	0.177	0.201	0.228									
6124	Wet																			
	0.049	0.066	0.085	0.100	0.122	0.144	0.171	0.192	0.217	0.245	0.276									
T6124	Dry																			
	0.025	0.038	0.054	0.072	0.093	0.117	0.143	0.171	0.205	0.233	0.273									
6024	Wet																			
	0.030	0.044	0.061	0.079	0.103	0.125	0.154	0.182	0.216	0.251	0.288									
T6024	Dry																			
			0.072	0.093	0.118	0.145	0.175	0.206	0.243	0.281	0.322	0.366	0.413							
6124	Wet																			
			0.079	0.102	0.130	0.159	0.192	0.228	0.26	0.303	0.348	0.396	0.446							
T6124	Dry																			
	0.030	0.041	0.054	0.066	0.082	0.099	0.118	0.137	0.158	0.180	0.205	0.231	0.259							
6024	Wet																			
	0.043	0.059	0.078	0.101	0.126	0.153	0.181	0.207	0.234	0.260	0.288	0.319	0.354							
T6024	Dry																			
				0.053	0.062	0.073	0.084	0.097	0.111	0.126	0.138	0.154	0.172	0.190	0.210					
6124	Wet																			
				0.067	0.082	0.096	0.112	0.129	0.145	0.163	0.171	0.191	0.212	0.235	0.258	0.283	0.310	0.336	0.366	
T6124	Dry																			
			0.047	0.060	0.075	0.092	0.110	0.130	0.152	0.176	0.204	0.230	0.256	0.284	0.318					
6024	Wet																			
			0.053	0.067	0.085	0.104	0.125	0.147	0.172	0.200	0.228	0.259	0.292	0.327	0.365					
T6024	Dry																			
			0.015	0.046	0.057	0.069	0.094	0.100	0.119	0.124	0.140	0.158	0.175	0.195	0.214					
6124	Wet																			
			0.032	0.050	0.066	0.081	0.097	0.114	0.131	0.150	0.169	0.190	0.211	0.233	0.257					
T6124	Dry																			
					0.062	0.073	0.084	0.097	0.111	0.126	0.138	0.154	0.172	0.190	0.210	0.228	0.251	0.273	0.293	
6024	Wet																			
					0.082	0.096	0.112	0.129	0.145	0.163	0.171	0.191	0.212	0.235	0.258	0.283	0.310	0.336	0.366	
T6024	Dry																			
											0.130	0.140	0.160	0.180	0.200	0.220	0.240	0.270	0.290	
6124	Wet																			
											0.150	0.170	0.190	0.210	0.230	0.260	0.290	0.310	0.340	

SYSTEM 1

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EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES ° F (° C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB ° F (° C)	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**	Capacity MBtuh		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
CA13NA036*** °C Outdoor Section With CAP**4821** Indoor Section																			
1050	72 (22.2)	40.22	21.00	2.54	38.50	20.34	2.79	36.66	19.65	3.07	34.69	18.93	3.39	32.56	18.15	3.76	30.22	17.30	4.20
	67 (19.4)	36.61	25.73	2.51	35.00	25.05	2.76	33.29	24.35	3.04	31.46	23.60	3.36	29.49	22.81	3.74	27.34	21.95	4.18
	63 (17.2)††	34.02	24.88	2.49	32.50	24.20	2.74	30.89	23.49	3.02	29.17	22.73	3.35	27.32	21.94	3.73	25.29	21.07	4.18
	62 (16.7)	33.42	30.44	2.49	31.97	29.75	2.74	30.45	29.01	3.02	28.86	28.20	3.35	27.29	27.29	3.73	25.64	25.64	4.18
	57 (13.9)	32.55	32.55	2.48	31.38	31.38	2.73	30.12	30.12	3.02	28.77	28.77	3.35	27.29	27.29	3.73	25.65	25.65	4.18
1200	72 (22.2)	40.90	21.97	2.60	39.11	21.31	2.85	37.20	20.61	3.13	35.17	19.88	3.45	32.96	19.09	3.82	30.54	18.23	4.25
	67 (19.4)	37.25	27.30	2.57	35.57	26.61	2.82	33.80	25.90	3.10	31.91	25.15	3.42	29.88	24.35	3.80	27.67	23.48	4.24
	63 (17.2)††	34.63	26.36	2.55	33.04	25.66	2.80	31.38	24.94	3.08	29.60	24.18	3.41	27.69	23.37	3.79	25.61	22.48	4.24
	62 (16.7)	34.19	32.60	2.55	32.73	31.85	2.80	31.24	31.24	3.08	29.83	29.83	3.41	28.26	28.26	3.79	26.52	26.52	4.24
	57 (13.9)	33.87	33.87	2.55	32.61	32.61	2.80	31.27	31.27	3.08	29.83	29.83	3.41	28.26	28.26	3.79	26.52	26.52	4.24
	72 (22.2)	41.40	22.89	2.66	39.55	22.22	2.91	37.60	21.52	3.19	35.50	20.77	3.51	33.24	19.97	3.88	30.75	19.10	4.31
	67 (19.4)	37.72	28.79	2.63	36.00	28.11	2.88	34.19	27.39	3.16	32.26	26.63	3.48	30.19	25.81	3.86	27.93	24.92	4.30
1350	63 (17.2)††	35.09	27.77	2.61	33.47	27.07	2.86	31.76	26.34	3.14	29.94	25.57	3.47	27.99	24.73	3.85	25.88	23.82	4.29
	62 (16.7)	34.90	34.90	2.61	33.63	33.63	2.86	32.22	32.22	3.15	30.70	30.70	3.47	29.05	29.05	3.85	27.22	27.22	4.30
	57 (13.9)	34.96	34.96	2.61	33.64	33.64	2.86	32.23	32.23	3.15	30.70	30.70	3.47	29.05	29.05	3.85	27.22	27.22	4.29

See notes on page 14