



Air comfort for all



## Indoor Unit

### MODELS:

3VIR09HP230V1AH & BH  
3VIR12HP230V1AH & BH  
3VIR18HP230V1AH & BH  
3VIR24HP230V1AH & BH

## Outdoor Unit

### MODELS:

3VIR09HP230V1BO  
3VIR12HP230V1BO  
3VIR18HP230V1BO  
3VIR24HP230V1BO

Thank you for choosing our product.  
Please go through this Extended Ratings to design  
your project and retain it for future reference.

To download an electric version visit  
<https://www.greecomfort.com/system-documentation/>

EXTENDED RATINGS

3VIR09HP230V1AH & BH/ 3VIR09HP230V1AO

COOLING PERFORMANCE

Outdoor Ambient Temperature (DB)		Return Air Temperature																			
		70°F (DB) / 59°F (WB)					75°F (DB) / 63°F (WB)					80°F (DB) / 67°F (WB)					90°F (DB) / 73°F (WB)				
		TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)
<b>MAX OUTPUT*</b>	-20°F	6018	4363	72%	9.90	608	6448	4675	73%	10.27	628	6663	4831	73%	10.12	658	7308	5298	73%	10.31	709
	-15°F	6341	4597	73%	10.20	622	6771	4909	72%	10.35	654	6986	5065	72%	10.14	689	7630	5532	73%	10.05	759
	-10°F	6609	4808	73%	10.40	635	7039	5121	73%	10.52	669	7254	5277	73%	10.30	704	7899	5747	73%	10.18	776
	-5°F	6878	5021	73%	10.60	649	7308	5335	73%	10.70	683	7523	5492	73%	10.46	719	8168	5962	73%	10.30	793
	0°F	6986	5117	73%	10.54	663	7415	5432	73%	10.63	698	7630	5589	73%	10.39	734	8275	6062	73%	10.22	810
	5°F	7093	5213	74%	10.48	677	7523	5529	73%	10.56	712	7738	5687	73%	10.32	750	8383	6161	74%	10.14	826
	10°F	7254	5350	74%	10.51	690	7684	5667	74%	10.58	727	7899	5826	74%	10.33	765	8544	6301	74%	10.13	843
	15°F	7415	5487	74%	10.53	704	7845	5806	74%	10.59	741	8060	5965	74%	10.33	780	8705	6442	74%	10.12	860
	20°F	7523	5586	74%	10.48	718	7953	5905	74%	10.53	755	8168	6065	74%	10.27	795	8813	6543	74%	10.05	877
	25°F	7630	5685	75%	10.43	731	8060	6005	75%	10.47	770	8275	6165	75%	10.21	810	8920	6645	75%	9.98	893
	30°F	7899	5905	75%	10.60	745	8329	6226	75%	10.62	784	8544	6387	75%	10.35	826	9189	6869	75%	10.10	910
	35°F	8168	6126	75%	10.76	759	8598	6448	75%	10.76	799	8813	6609	75%	10.48	841	9457	7093	75%	10.20	927
	40°F	8329	6268	75%	10.78	773	8759	6591	75%	10.77	813	8974	6753	75%	10.48	856	9619	7238	75%	10.19	944
	45°F	8490	6410	76%	10.80	786	8920	6735	76%	10.78	828	9135	6897	76%	10.49	871	9780	7384	76%	10.18	960
	50°F	8759	6635	76%	10.95	800	9189	6960	76%	10.91	842	9404	7123	76%	10.61	886	10048	7612	76%	10.28	977
	55°F	9027	6861	76%	11.09	814	9457	7188	76%	11.04	856	9672	7351	76%	10.73	902	10317	7841	76%	10.38	994
	60°F	9296	7088	76%	11.24	827	9726	7416	76%	11.17	871	9941	7580	76%	10.84	917	10586	8072	76%	10.47	1011
	65°F	9565	7317	76%	11.37	841	9995	7646	76%	11.29	885	10210	7810	76%	10.96	932	10854	8304	77%	10.56	1027
	70°F	9995	7671	77%	11.69	855	10425	8001	77%	11.59	900	10640	8166	77%	11.23	947	11284	8661	77%	10.81	1044
	75°F	10425	8027	77%	12.00	869	10854	8358	77%	11.87	914	11069	8523	77%	11.50	962	11714	9020	77%	11.04	1061
	80°F	10586	8178	77%	12.00	882	11016	8510	77%	11.86	929	11231	8676	77%	11.49	978	11875	9174	77%	11.02	1078
85°F	10747	8329	78%	12.00	896	11177	8662	77%	11.85	943	11392	8829	77%	11.48	993	12037	9328	78%	11.00	1094	
90°F	10425	8105	78%	11.52	905	10854	8439	78%	11.39	953	11069	8606	78%	11.04	1003	11714	9108	78%	10.59	1106	
95°F	10102	7880	78%	11.05	914	10532	8215	78%	10.94	962	10747	8383	78%	10.61	1013	11392	8886	78%	10.20	1117	
100°F	9834	7695	78%	10.49	937	10263	8031	78%	10.40	986	10478	8199	78%	10.09	1038	11123	8704	78%	9.72	1145	
105°F	9565	7508	78%	9.96	960	9995	7846	79%	9.89	1010	10210	8015	79%	9.60	1064	10854	8521	79%	9.26	1173	
110°F	9404	7405	79%	9.57	983	9834	7744	79%	9.51	1035	10048	7913	79%	9.23	1089	10693	8421	79%	8.91	1201	
115°F	9242	7302	79%	9.19	1006	9672	7641	79%	9.14	1059	9887	7811	79%	8.87	1114	10532	8320	79%	8.57	1229	
120°F	8866	7027	79%	8.78	1009	9296	7367	79%	8.59	1083	9511	7538	79%	8.35	1140	10156	8049	79%	8.08	1256	
122°F	8490	6750	79%	8.38	1013	8920	7091	80%	8.06	1107	9135	7262	80%	7.84	1165	9780	7775	80%	7.61	1284	
125°F																					
129°F																					

\*Maximum Output values are not based on AHRI test conditions

- LEGEND:** W - Watts  
 DB - Dry Bulb  
 TC - Total Capacity  
 SC - Total Capacity  
 SHR - Sensible Heat Ratio  
 COP - Coefficient of Performance

**EXTENDED RATINGS**

**3VIR09HP230V1AH & BH/ 3VIR09HP230V1AO**

**HEATING PERFORMANCE**

Outdoor Ambient Temperature		Return Air Temperature												
		70°F (DB)			75°F (DB)			80°F (DB)			90°F (DB)			
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	
DB	WB													
<b>MAX OUTPUT*</b>	-22°F	-22.5°F	8030	2.23	1054	7738	2.11	1075	7446	1.99	1096	7154	1.87	1118
	-20°F	-20.5°F	8249	2.27	1065	7957	2.15	1086	7665	2.03	1108	7373	1.91	1130
	-15°F	-16°F	8468	2.31	1075	8176	2.18	1097	7884	2.07	1119	7592	1.95	1141
	-10°F	-11°F	8979	2.42	1086	8687	2.30	1108	8395	2.18	1130	8103	2.06	1153
	-5°F	-6°F	9490	2.53	1097	9198	2.41	1119	8906	2.29	1142	8614	2.17	1164
	0°F	-1°F	9928	2.60	1120	9636	2.47	1142	9344	2.35	1165	9052	2.23	1188
	5°F	3°F	10366	2.66	1143	10074	2.53	1165	9782	2.41	1189	9490	2.29	1213
	10°F	8°F	10950	2.75	1166	10658	2.63	1189	10366	2.50	1213	10074	2.39	1237
	15°F	13°F	11169	2.78	1178	11169	2.72	1201	10877	2.60	1225	10585	2.48	1250
	17°F	15°F	11388	2.81	1190	11680	2.82	1213	11388	2.70	1238	11096	2.58	1263
	20°F	17°F	11972	2.89	1214	11680	2.76	1238	11388	2.64	1263	11096	2.52	1288
	25°F	22°F	12410	2.94	1239	12118	2.81	1264	11826	2.69	1289	11534	2.57	1315
	30°F	27°F	12629	2.96	1251	12337	2.83	1276	12045	2.71	1302	11753	2.59	1328
	35°F	33°F	12848	2.98	1264	12556	2.85	1289	12264	2.73	1315	11972	2.62	1341
	40°F	36°F	13870	3.15	1290	13578	3.02	1316	13286	2.90	1342	12994	2.78	1369
	45°F	41°F	14308	3.19	1316	14016	3.06	1342	13724	2.94	1369	13432	2.82	1397
	47°F	43°F	14600	3.19	1343	14308	3.06	1370	14016	2.94	1397	13724	2.82	1425
	50°F	46°F	14454	3.14	1350	14162	3.01	1377	13870	2.89	1404	13578	2.78	1432
	55°F	50°F	14308	3.09	1356	14016	2.97	1384	13724	2.85	1411	13432	2.73	1439
	60°F	55°F	14162	3.03	1370	13870	2.91	1397	13578	2.79	1425	13286	2.68	1454
65°F	60°F	13870	3.09	1316	13578	2.96	1342	13286	2.84	1369	12994	2.73	1397	
70°F	64°F	13724	3.07	1309	13432	2.95	1336	13140	2.83	1362	12848	2.71	1390	
75°F	69°F	13578	3.05	1303	13286	2.93	1329	12994	2.81	1355	12702	2.69	1382	
80°F	74°F	12410	2.88	1262	12118	2.76	1288	11826	2.64	1313	11534	2.52	1340	
86°F	80°F	10950	2.60	1236	10658	2.48	1260	10366	2.36	1285	10074	2.25	1311	

\*Maximum Output values are not based on AHRI test conditions

**LEGEND: W - Watts**

**DB - Dry Bulb**

**TC - Total Capacity**

**SC - Total Capacity**

**SHR - Sensible Heat Ratio**

**COP - Coefficient of Performance**

COOLING PERFORMANCE																					
Outdoor Ambient Temperature (DB)		Return Air Temperature																			
		70°F (DB) / 59°F (WB)					75°F (DB) / 63°F (WB)					80°F (DB) / 67°F (WB)					90°F (DB) / 73°F (WB)				
		TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)
<b>MAX OUTPUT*</b>	-20°F	7895	5724	73%	10.12	780	8459	6133	73%	10.49	806	8741	6337	72%	845.00	975	9587	6950	72%	10.53	910
	-15°F	8318	6030	73%	10.43	798	8882	6439	72%	10.58	840	9164	6644	72%	884.00	1020	10010	7257	73%	10.27	975
	-10°F	8670	6308	73%	10.63	815	9234	6718	73%	10.76	858	9516	6923	73%	903.50	1043	10362	7538	73%	10.40	996
	-5°F	9023	6587	73%	10.83	833	9587	6998	73%	10.93	877	9869	7204	73%	923.00	1065	10714	7822	73%	10.53	1018
	0°F	9164	6712	73%	10.77	851	9728	7125	73%	10.86	895	10010	7332	73%	942.50	1088	10855	7952	73%	10.45	1039
	5°F	9305	6839	74%	10.72	868	9869	7253	73%	10.80	914	10151	7461	73%	962.00	1110	10996	8082	73%	10.37	1061
	10°F	9516	7018	74%	10.74	886	10080	7434	74%	10.81	932	10362	7642	74%	981.50	1133	11208	8266	74%	10.36	1082
	15°F	9728	7198	74%	10.77	903	10292	7616	74%	10.82	951	10574	7824	74%	1001.00	1155	11419	8450	74%	10.35	1104
	20°F	9869	7327	74%	10.72	921	10433	7746	74%	10.76	969	10714	7956	74%	1020.50	1178	11560	8584	74%	10.27	1125
	25°F	10010	7457	75%	10.66	939	10574	7877	75%	10.70	988	10855	8087	75%	1040.00	1200	11701	8718	75%	10.21	1147
	30°F	10362	7746	75%	10.84	956	10926	8167	75%	10.86	1007	11208	8378	75%	1059.50	1223	12054	9010	75%	10.32	1168
	35°F	10714	8036	75%	11.00	974	11278	8459	75%	11.00	1025	11560	8670	75%	1079.00	1245	12406	9305	75%	10.43	1190
	40°F	10926	8222	75%	11.02	991	11490	8646	75%	11.01	1044	11772	8858	75%	1098.50	1268	12618	9495	75%	10.42	1211
	45°F	11137	8409	75%	11.04	1009	11701	8835	75%	11.02	1062	11983	9047	75%	1118.00	1290	12829	9686	75%	10.41	1233
	50°F	11490	8704	76%	11.19	1027	12054	9131	76%	11.15	1081	12336	9344	76%	1137.50	1313	13182	9985	76%	10.51	1254
	55°F	11842	9000	76%	11.34	1044	12406	9429	76%	11.29	1099	12688	9643	76%	1157.00	1335	13534	10286	76%	10.61	1276
	60°F	12195	9299	76%	11.49	1062	12759	9729	76%	11.42	1118	13041	9944	76%	1176.50	1358	13887	10588	76%	10.71	1297
	65°F	12547	9599	76%	11.62	1079	13111	10030	76%	11.54	1136	13393	10246	76%	1196.00	1380	14239	10893	77%	10.80	1319
	70°F	13111	10063	77%	11.95	1097	13675	10496	77%	11.84	1155	13957	10712	77%	1215.50	1403	14803	11361	77%	11.05	1340
	75°F	13675	10530	77%	12.27	1115	14239	10964	77%	12.14	1173	14521	11181	77%	1235.00	1425	15367	11832	77%	11.29	1362
	80°F	13887	10727	77%	12.27	1132	14450	11163	77%	12.13	1192	14732	11381	77%	1254.50	1448	15578	12034	77%	11.26	1383
85°F	14098	10926	78%	12.26	1150	14662	11363	78%	12.11	1210	14944	11582	78%	1274.00	1470	15790	12237	77%	11.24	1405	
90°F	13675	10632	78%	11.77	1162	14239	11071	78%	11.65	1223	14521	11290	78%	1287.00	1485	15367	11948	78%	10.83	1419	
95°F	13252	10337	78%	11.30	1173	13816	10777	78%	11.19	1235	14098	10996	78%	1300.00	1500	14944	11656	78%	10.43	1433	
100°F	12900	10094	78%	10.73	1203	13464	10535	78%	10.64	1266	13746	10756	78%	1332.50	1538	14591	11418	78%	9.93	1469	
105°F	12547	9850	79%	10.19	1232	13111	10292	78%	10.11	1297	13393	10514	78%	1365.00	1575	14239	11178	79%	9.46	1505	
110°F	12336	9714	79%	9.78	1261	12900	10158	79%	9.72	1328	13182	10381	79%	1397.50	1613	14028	11047	79%	9.10	1541	
115°F	12124	9578	79%	9.39	1291	12688	10024	79%	9.34	1359	12970	10246	79%	1430.00	1650	13816	10915	79%	8.76	1577	
120°F	11631	9217	79%	8.98	1295	12195	9664	79%	8.78	1389	12477	9888	79%	1462.50	1688	13323	10558	79%	8.26	1612	
122°F	11137	8854	80%	8.57	1300	11701	9303	80%	8.24	1420	11983	9527	79%	1495.00	1725	12829	10199	80%	7.78	1648	
125°F																					
129°F																					

\*Maximum Output values are not based on AHRI test conditions

- LEGEND:** W - Watts  
 DB - Dry Bulb  
 TC - Total Capacity  
 SC - Total Capacity  
 SHR - Sensible Heat Ratio  
 COP - Coefficient of Performance

**EXTENDED RATINGS**

**3VIR12HP230V1AH & BH/ 3VIR12HP230V1AO**

<b>HEATING PERFORMANCE</b>														
Outdoor Ambient Temperature			Return Air Temperature											
			70°F (DB)			75°F (DB)			80°F (DB)			90°F (DB)		
			TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)
<b>MAX OUTPUT*</b>	DB	WB												
	-22°F	-22.5°F	8525	2.45	1020	8215	2.31	1041	7905	2.18	1061	7595	2.06	1083
	-20°F	-20.5°F	8758	2.49	1031	8448	2.36	1051	8138	2.22	1072	7828	2.10	1094
	-15°F	-16°F	8990	2.53	1041	8680	2.40	1062	8370	2.27	1083	8060	2.14	1105
	-10°F	-11°F	9533	2.66	1052	9223	2.52	1073	8913	2.39	1094	8603	2.26	1116
	-5°F	-6°F	10075	2.78	1062	9765	2.64	1083	9455	2.51	1105	9145	2.38	1127
	0°F	-1°F	10540	2.85	1084	10230	2.71	1106	9920	2.58	1128	9610	2.45	1150
	5°F	3°F	11005	2.92	1106	10695	2.78	1128	10385	2.64	1151	10075	2.52	1174
	10°F	8°F	11625	3.02	1129	11315	2.88	1151	11005	2.75	1174	10695	2.62	1198
	15°F	13°F	11858	3.05	1140	11858	2.99	1163	11548	2.85	1186	11238	2.72	1210
	17°F	15°F	12090	3.08	1152	12400	3.09	1175	12090	2.96	1198	11780	2.83	1222
	20°F	17°F	12710	3.17	1175	12400	3.03	1199	12090	2.90	1223	11780	2.77	1247
	25°F	22°F	13175	3.22	1199	12865	3.08	1223	12555	2.95	1248	12245	2.82	1272
	30°F	27°F	13408	3.24	1211	13098	3.11	1236	12788	2.97	1260	12478	2.84	1285
	35°F	33°F	13640	3.27	1224	13330	3.13	1248	13020	3.00	1273	12710	2.87	1298
	40°F	36°F	14725	3.46	1249	14415	3.32	1273	14105	3.18	1299	13795	3.05	1325
	45°F	41°F	15190	3.49	1274	14880	3.36	1299	14570	3.22	1325	14260	3.09	1352
	47°F	43°F	15500	3.49	1300	15190	3.36	1326	14880	3.22	1353	14570	3.09	1380
50°F	46°F	15345	3.44	1307	15035	3.31	1333	14725	3.17	1359	14415	3.05	1386	
55°F	50°F	15190	3.39	1313	14880	3.26	1339	14570	3.13	1366	14260	3.00	1393	
60°F	55°F	15035	3.32	1326	14725	3.19	1353	14415	3.06	1380	14105	2.94	1407	
65°F	60°F	14725	3.39	1274	14415	3.25	1299	14105	3.12	1325	13795	2.99	1352	
70°F	64°F	14570	3.37	1268	14260	3.23	1293	13950	3.10	1319	13640	2.97	1345	
75°F	69°F	14415	3.35	1261	14105	3.21	1286	13795	3.08	1312	13485	2.95	1338	
80°F	74°F	13175	3.16	1222	12865	3.03	1246	12555	2.90	1271	12245	2.77	1297	
86°F	80°F	11625	2.85	1196	11315	2.72	1220	11005	2.59	1244	10695	2.47	1269	

\*Maximum Output values are not based on AHRI test conditions

**LEGEND: W - Watts**

DB - Dry Bulb

TC - Total Capacity

SC - Total Capacity

SHR - Sensible Heat Ratio

COP - Coefficient of Performance

EXTENDED RATINGS

3VIR18HP230V1AH & BH/ 3VIR18HP230V1AO

COOLING PERFORMANCE																					
Outdoor Ambient Temperature (DB)		Return Air Temperature																			
		70°F (DB) / 59°F (WB)					75°F (DB) / 63°F (WB)					80°F (DB) / 67°F (WB)					90°F (DB) / 73°F (WB)				
		TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)
<b>MAX OUTPUT*</b>	-20°F	8182	5155	63%	10.02	817	8435	5483	65%	10.12	834	8651	5710	66%	10.17	851	9257	6202	67%	10.36	893
	-15°F	8435	5398	64%	10.12	834	8696	5739	66%	10.22	851	8919	5976	67%	10.28	868	9543	6489	68%	10.47	911
	-10°F	8696	5565	64%	10.22	851	8965	5917	66%	10.33	868	9195	6160	67%	10.38	886	9838	6690	68%	10.58	930
	-5°F	8965	5738	64%	10.33	868	9242	6100	66%	10.43	886	9479	6351	67%	10.49	904	10143	6897	68%	10.69	949
	0°F	9242	5915	64%	10.43	886	9528	6288	66%	10.54	904	9772	6547	67%	10.60	922	10456	7110	68%	10.80	968
	5°F	9528	6193	65%	10.54	904	9823	6581	67%	10.65	922	10075	6851	68%	10.71	941	10780	7438	69%	10.91	988
	10°F	9823	6385	65%	10.65	922	10126	6785	67%	10.76	941	10386	7063	68%	10.82	960	11113	7668	69%	11.02	1008
	15°F	10126	6582	65%	10.76	941	10440	6995	67%	10.87	960	10707	7281	68%	10.93	980	11457	7905	69%	11.14	1029
	20°F	10440	6786	65%	10.87	960	10763	7211	67%	10.98	980	11038	7506	68%	11.04	1000	11811	8150	69%	11.25	1050
	25°F	10763	7103	66%	10.98	980	11095	7545	68%	11.10	1000	11380	7852	69%	11.15	1020	12176	8524	70%	11.37	1071
	30°F	11095	7323	66%	11.10	1000	11439	7778	68%	11.21	1020	11732	8095	69%	11.27	1041	12553	8787	70%	11.48	1093
	35°F	11439	7549	66%	11.21	1020	11792	8019	68%	11.33	1041	12095	8345	69%	11.38	1062	12941	9059	70%	11.60	1115
	40°F	11792	7783	66%	11.33	1041	12157	8267	68%	11.44	1062	12469	8603	69%	11.50	1084	13342	9339	70%	11.72	1138
	45°F	12157	8145	67%	11.44	1062	12533	8648	69%	11.56	1084	12854	8998	70%	11.62	1106	13754	9765	71%	11.84	1161
	50°F	12533	8397	67%	11.56	1084	12921	8915	69%	11.68	1106	13252	9276	70%	11.74	1129	14180	10067	71%	11.96	1185
	55°F	12921	8657	67%	11.68	1106	13320	9191	69%	11.80	1129	13662	9563	70%	11.86	1152	14618	10379	71%	12.09	1209
	60°F	13320	8925	67%	11.80	1129	13732	9475	69%	11.92	1152	14084	9859	70%	11.98	1175	15070	10700	71%	12.21	1234
	65°F	15671	10656	68%	11.94	1312	16156	11309	70%	12.06	1339	16570	11765	71%	12.13	1367	17730	12765	72%	12.36	1435
	70°F	15991	10874	68%	12.06	1326	16485	11540	70%	12.19	1353	16908	12005	71%	12.25	1380	18091	13026	72%	12.48	1449
	75°F	16485	11210	68%	12.19	1353	16995	11897	70%	12.31	1380	17431	12376	71%	12.38	1409	18651	13429	72%	12.61	1479
80°F	18733	12739	68%	12.05	1555	19313	13519	70%	12.17	1587	19808	14064	71%	12.23	1619	21194	15260	72%	12.47	1700	
85°F	18366	12672	69%	11.58	1587	18934	13443	71%	11.69	1619	19419	13982	72%	11.75	1652	20779	15168	73%	11.98	1735	
90°F	20407	14081	69%	11.45	1783	21038	14937	71%	11.56	1819	21577	15535	72%	11.62	1856	23087	16854	73%	11.85	1949	
95°F	20006	13804	69%	11.11	1801	20625	14644	71%	11.22	1838	21154	15231	72%	11.28	1875	22635	16523	73%	11.50	1969	
100°F	19006	13114	69%	10.50	1810	19594	13912	71%	10.61	1847	20096	14469	72%	10.66	1884	21503	15697	73%	10.87	1979	
105°F	18056	12639	70%	9.93	1819	18614	13402	72%	10.03	1856	19091	13937	73%	10.08	1894	20428	15117	74%	10.27	1988	
110°F	17265	12085	70%	9.45	1828	17799	12815	72%	9.54	1865	18255	13326	73%	9.59	1903	19533	14454	74%	9.78	1998	
115°F	14848	10393	70%	9.13	1627	15307	11021	72%	9.22	1660	15699	11460	73%	9.27	1694	16798	12431	74%	9.45	1778	
120°F	13660	9562	70%	8.75	1562	14082	10139	72%	8.84	1593	14443	10544	73%	8.88	1626	15454	11436	74%	9.05	1707	
122°F	12704	9020	71%	8.47	1499	13097	9560	73%	8.56	1530	13432	9940	74%	8.61	1561	14373	10779	75%	8.77	1639	
125°F																					
129°F																					

\*Maximum Output values are not based on AHRI test conditions

- LEGEND: W - Watts  
 DB - Dry Bulb  
 TC - Total Capacity  
 SC - Total Capacity  
 SHR - Sensible Heat Ratio  
 COP - Coefficient of Performance

**EXTENDED RATINGS**

**3VIR18HP230V1AH & BH/ 3VIR18HP230V1AO**

**HEATING PERFORMANCE**

Outdoor Ambient Temperature		Return Air Temperature												
		70°F (DB)			75°F (DB)			80°F (DB)			90°F (DB)			
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	
MAX OUTPUT*	DB	WB												
	-22°F	-22.5°F	9868	1.68	1720	9622	1.61	1754	9333	1.53	1790	8960	1.44	1825
	-20°F	-20.5°F	10611	1.75	1773	10346	1.68	1809	10036	1.59	1845	9634	1.50	1882
	-15°F	-16°F	11410	1.83	1828	11125	1.75	1865	10791	1.66	1902	10359	1.56	1940
	-10°F	-11°F	12138	1.89	1885	11835	1.80	1922	11480	1.72	1961	11021	1.61	2000
	-5°F	-6°F	12913	1.95	1943	12590	1.86	1982	12212	1.77	2021	11724	1.67	2062
	0°F	-1°F	13593	1.99	2003	13253	1.90	2043	12855	1.81	2084	12341	1.70	2126
	5°F	3°F	14159	2.01	2065	13805	1.92	2106	13391	1.83	2148	12855	1.72	2191
	10°F	8°F	14578	2.03	2103	14214	1.94	2145	13787	1.85	2187	13236	1.74	2231
	15°F	13°F	15059	2.08	2124	14682	1.99	2166	14242	1.89	2210	13672	1.78	2254
	17°F	15°F	15539	2.12	2145	15151	2.03	2188	14696	1.93	2232	14109	1.82	2277
	20°F	17°F	16020	2.14	2189	15620	2.05	2233	15151	1.95	2277	14545	1.84	2323
	25°F	22°F	16691	2.30	2130	16274	2.20	2173	15785	2.09	2216	15154	1.96	2261
	30°F	27°F	17569	2.51	2048	17130	2.40	2089	16616	2.29	2131	15952	2.15	2174
	35°F	33°F	18494	2.62	2069	18032	2.50	2110	17491	2.38	2153	16791	2.24	2196
	40°F	36°F	20519	2.93	2055	20006	2.80	2096	19406	2.66	2138	18630	2.50	2181
	45°F	41°F	21154	2.99	2076	20625	2.85	2118	20006	2.71	2160	19206	2.56	2203
	47°F	43°F	21471	3.00	2097	20935	2.87	2139	20306	2.73	2181	19494	2.57	2225
	50°F	46°F	18465	3.35	1615	18004	3.20	1647	17464	3.05	1680	16765	2.87	1713
	55°F	50°F	18096	3.32	1598	17644	3.17	1630	17114	3.02	1663	16430	2.84	1696
60°F	55°F	16286	3.28	1455	15879	3.14	1484	15403	2.98	1513	14787	2.81	1544	
65°F	60°F	15798	3.25	1425	15403	3.10	1454	14941	2.95	1483	14343	2.78	1513	
70°F	64°F	11848	3.16	1098	11552	3.02	1120	11206	2.88	1142	10757	2.71	1165	
75°F	69°F	11374	3.10	1076	11090	2.96	1097	10757	2.82	1119	10327	2.65	1141	
80°F	74°F	10919	3.02	1059	10646	2.89	1081	10327	2.75	1102	9914	2.58	1124	
86°F	80°F	10373	2.93	1038	10114	2.80	1059	9811	2.66	1080	9418	2.51	1102	

\*Maximum Output values are not based on AHRI test conditions

**LEGEND: W - Watts**

**DB - Dry Bulb**

**TC - Total Capacity**

**SC - Total Capacity**

**SHR - Sensible Heat Ratio**

**COP - Coefficient of Performance**

COOLING PERFORMANCE

Outdoor Ambient Temperature (DB)	Return Air Temperature																				
	70°F (DB) / 59°F (WB)					75°F (DB) / 63°F (WB)					80°F (DB) / 67°F (WB)					90°F (DB) / 73°F (WB)					
	TC (Btu/h)	SC (Btu/h)	SHR	EER	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	TC (Btu/h)	SC (Btu/h)	SHR	EER(Btu/(h·W))	Power Input (W)	
MAX OUTPUT*	-20°F	11761	8527	73%	8.36	1407	12601	9136	73%	8.67	1454	13021	9440	73%	8.54	1524	14281	10354	73%	8.70	1642
	-15°F	12289	8909	73%	8.47	1451	13122	9513	72%	8.59	1528	13538	9815	73%	8.42	1608	14788	10721	73%	8.34	1773
	-10°F	12741	9270	73%	8.77	1453	13570	9873	73%	8.87	1530	13984	10175	73%	8.50	1610	15227	11079	73%	8.58	1775
	-5°F	13697	9999	73%	9.39	1459	14553	10624	73%	9.47	1536	14981	10936	73%	8.47	1617	16265	11874	73%	9.12	1783
	0°F	14387	10539	73%	9.83	1463	15272	11188	73%	9.91	1540	15715	11512	73%	8.52	1621	17043	12485	73%	9.53	1788
	5°F	15197	11169	74%	9.94	1529	16118	11846	74%	10.02	1609	16578	12185	74%	9.79	1694	17960	13200	74%	9.62	1868
	10°F	16312	12031	74%	10.63	1534	17278	12744	74%	10.70	1615	17762	13100	74%	10.45	1700	19212	14170	74%	10.25	1874
	15°F	16664	12331	74%	10.75	1551	17630	13046	74%	10.80	1632	18113	13404	74%	10.54	1718	19562	14476	74%	10.33	1894
	20°F	17010	12631	74%	10.58	1607	17982	13352	74%	10.63	1692	18468	13713	74%	10.37	1781	19926	14796	74%	10.15	1963
	25°F	17268	12864	75%	10.54	1638	18241	13589	74%	10.58	1724	18727	13952	75%	10.32	1815	20186	15039	75%	10.09	2001
	30°F	17570	13135	75%	10.44	1683	18526	13850	75%	10.46	1772	19005	14207	75%	10.19	1865	20439	15280	75%	9.94	2056
	35°F	17926	13444	75%	10.52	1704	18869	14152	75%	10.52	1793	19341	14506	75%	10.25	1888	20756	15567	75%	9.97	2081
	40°F	19661	14796	75%	11.25	1747	20676	15559	75%	11.24	1839	21183	15941	75%	10.94	1936	22705	17087	75%	10.64	2134
	45°F	20503	15480	75%	11.35	1807	21541	16264	75%	11.32	1902	22060	16655	75%	11.02	2002	23617	17831	76%	10.70	2207
	50°F	21446	16247	76%	11.55	1856	22499	17044	76%	11.51	1954	23025	17443	76%	11.19	2057	24604	18639	76%	10.85	2268
	55°F	21946	16679	76%	11.59	1893	22991	17473	76%	11.54	1993	23513	17870	76%	11.21	2098	25081	19061	76%	10.85	2313
	60°F	22680	17295	76%	11.80	1922	23729	18095	76%	11.73	2023	24253	18495	76%	11.39	2130	25826	19694	76%	11.00	2348
	65°F	22975	17576	76%	11.68	1967	24007	18366	76%	11.59	2071	24524	18761	76%	11.25	2180	26073	19946	77%	10.85	2403
	70°F	23648	18153	77%	11.90	1987	24665	18933	77%	11.79	2092	25174	19324	77%	11.43	2202	26700	20495	77%	11.00	2428
	75°F	24391	18781	77%	12.14	2009	25397	19556	77%	12.01	2115	25900	19943	77%	12.44	2226	27409	21105	77%	11.17	2455
	80°F	24634	19031	77%	11.66	2113	25635	19804	77%	11.53	2224	26135	20190	77%	13.04	2341	27636	21349	77%	10.71	2581
85°F	25329	19630	78%	11.70	2165	26342	20415	78%	11.56	2279	26849	20808	78%	13.42	2399	28369	21986	78%	10.73	2645	
90°F	25781	20042	78%	11.61	2220	26844	20869	78%	11.49	2337	27375	21282	78%	11.82	2460	28970	22522	78%	10.68	2712	
95°F	26442	20625	78%	11.65	2271	27567	21503	78%	11.53	2390	28130	21941	78%	11.37	2516	29818	23258	78%	10.75	2774	
100°F	26325	20598	78%	11.34	2321	27476	21498	78%	11.24	2443	28051	21948	78%	11.35	2572	29778	23299	78%	10.50	2836	
105°F	25597	20094	79%	10.75	2381	26748	20997	79%	10.67	2506	27323	21449	78%	10.36	2638	29049	22803	79%	9.99	2908	
110°F	25448	20039	79%	10.48	2428	26611	20955	79%	10.41	2556	27193	21413	79%	9.75	2690	28938	22788	79%	9.76	2966	
115°F	23819	18817	79%	9.74	2446	24927	19692	79%	9.68	2575	25481	20130	79%	9.08	2710	27143	21443	79%	9.08	2988	
120°F	22263	17641	79%	9.20	2420	23343	18497	79%	8.99	2595	23883	18925	79%	9.23	2732	25502	20208	79%	8.47	3012	
122°F	20829	16559	80%	8.67	2403	21884	17398	80%	8.34	2625	22411	17817	79%	8.52	2763	23993	19074	80%	7.88	3046	
125°F																					
129°F																					

\*Maximum Output values are not based on AHRI test conditions

- LEGEND: W - Watts  
 DB - Dry Bulb  
 TC - Total Capacity  
 SC - Total Capacity  
 SHR - Sensible Heat Ratio  
 COP - Coefficient of Performance



**EXTENDED RATINGS**

**3VIR24HP230V1AH & BH/ 3VIR24HP230V1AO**

**HEATING PERFORMANCE**

Outdoor Ambient Temperature		Return Air Temperature												
		70°F (DB)			75°F (DB)			80°F (DB)			90°F (DB)			
		TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	TC (Btu/h)	COP(W/W)	Power Input (W)	
MAX OUTPUT*	DB	WB												
	-22°F	-22.5°F	15311	1.96	2292	14852	1.82	2385	14622	1.76	2433	14048	1.66	2482
	-20°F	-20.5°F	15612	1.97	2322	15144	1.84	2417	14909	1.77	2465	14342	1.67	2514
	-15°F	-16°F	16250	2.04	2338	15763	1.90	2434	15519	1.83	2483	14944	1.73	2532
	-10°F	-11°F	16842	2.08	2376	16337	1.94	2473	16084	1.87	2522	15525	1.77	2573
	-5°F	-6°F	17909	2.20	2386	17371	2.05	2484	17103	1.98	2533	16542	1.88	2584
	0°F	-1°F	17960	2.16	2435	17421	2.01	2534	17152	1.94	2585	16616	1.85	2637
	5°F	3°F	19225	2.27	2485	18648	2.11	2586	18360	2.04	2638	17812	1.94	2690
	10°F	8°F	20768	2.40	2535	20145	2.24	2639	19834	2.16	2692	19275	2.06	2745
	15°F	13°F	21989	2.49	2587	21330	2.32	2693	21000	2.24	2746	20436	2.14	2801
	17°F	15°F	22103	2.47	2621	21440	2.30	2728	21108	2.22	2783	20567	2.12	2838
	20°F	17°F	22205	2.47	2640	21538	2.30	2748	21205	2.22	2803	20662	2.12	2859
	25°F	22°F	23521	2.56	2694	22815	2.39	2804	22463	2.30	2860	21908	2.20	2917
	30°F	27°F	24174	2.58	2749	23449	2.40	2861	23086	2.32	2918	22527	2.22	2976
	35°F	33°F	25842	2.72	2785	25067	2.53	2899	24679	2.45	2957	24092	2.34	3016
	40°F	36°F	27496	2.87	2805	26671	2.68	2919	26258	2.58	2978	25681	2.48	3037
	45°F	41°F	30491	3.12	2862	30546	3.01	2979	30074	2.90	3038	29434	2.78	3099
47°F	43°F	30708	3.08	2920	30189	2.91	3040	29807	2.82	3100	29767	2.76	3162	
50°F	46°F	32059	3.17	2965	31467	2.99	3086	30812	2.87	3148	30607	2.79	3211	
55°F	50°F	32486	3.17	3008	32481	3.04	3131	31979	2.93	3193	31298	2.82	3257	
60°F	55°F	33817	3.09	3210	33743	3.07	3225	33205	2.96	3289	32470	2.84	3355	
65°F	60°F	34712	3.07	3312	34641	3.06	3321	34105	2.95	3388	33355	2.83	3456	
70°F	64°F	33907	3.10	3210	32890	2.82	3421	32381	2.72	3490	31662	2.61	3559	
75°F	69°F	32802	3.05	3154	31818	2.65	3524	31326	2.55	3594	30622	2.45	3666	
80°F	74°F	30128	3.02	2921	29225	2.36	3629	28773	2.28	3702	28062	2.18	3776	
86°F	80°F	29891	3.02	2902	28994	2.36	3606	28546	2.27	3678	27742	2.17	3752	

\*Maximum Output values are not based on AHRI test conditions

**LEGEND: W - Watts**

**DB - Dry Bulb**

**TC - Total Capacity**

**SC - Total Capacity**

**SHR - Sensible Heat Ratio**

**COP - Coefficient of Performance**



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