



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.

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<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)
MAX OUTPUT*	-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**

<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	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

EXTENDED RATINGS

3VIR12HP230V1AH & BH/ 3VIR12HP230V1AO

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**

**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	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**

EXTENDED RATINGS

3VIR24HP230V1AH & BH/ 3VIR24HP230V1AO

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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