

VAB VERTICAL BELT DRIVE

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Standard Ratings - Water Coil															
Model	2- or 4- Pipe Cooling									2-Pipe Heating					
	EWT	gpm	PD Ft.	cfm	80°F DB / 67°F WB					gpm	PD Ft.	cfm	60°F EAT / 180°F EWT		
					TTL mbh	SENS mbh	LAT DB	LAT WB	°F				TTL mbh	LAT	LWT
VAB08	45	4.8	4.1	600	21.2	15.2	56.6	55.7	53.9	4.8	3.6	600	60.5	153.3	154.2
				800	23.6	18.0	59.2	57.7	54.9			800	72.0	143.1	149.4
				1000	25.6	20.4	61.1	59.1	55.7			1000	81.0	135	145.5
VAB12	45	7.2	5.8	900	31.8	22.8	56.5	55.7	53.9	7.2	5.2	900	90.0	153.2	154.2
				1200	35.8	27.2	59.0	57.7	55.0			1200	108	143.5	149.2
				1500	38.5	31.0	60.9	59.0	55.8			1500	122	135.5	145.2
VAB16	45	9.6	6.5	1200	43.0	30.6	56.4	55.5	54.0	9.6	5.8	1200	121	153.5	154.2
				1600	48.5	36.8	58.8	57.5	55.1			1600	145	143.8	149.1
				2000	52.5	41.5	60.8	58.9	56.0			2000	164	135.8	145.1
VAB20	45	12	6.1	1500	54.5	38.5	56.1	55.3	54.1	12	5.3	1500	153	154.3	153.9
				2000	61.5	46.0	58.6	57.3	55.3			2000	183	144.7	148.8
				2500	66.0	52.5	60.5	58.7	56.2			2500	207	136.7	144.7
VAB30	45	18	8.3	2250	82.0	58.0	56.2	55.3	54.1	18	7.2	2250	228	153.7	154.1
				3000	92.0	69.0	58.7	57.3	55.3			3000	273	144.1	149
				3750	100	78.0	60.9	58.7	56.1			3750	309	136.2	144.9
VAB40	45	24	7.6	3000	103	74.0	57.2	56.0	53.6	24	6.6	3000	290	149.3	155.3
				4000	117	88.0	59.5	57.9	54.8			4000	348	140.5	150.3
				5000	127	101	61.3	59.1	55.6			5000	396	133.2	146.3

Note: Standard ratings are for sea level altitude, standard 4-row coils, nominal air volumes and ordinary water. For other conditions and/or other coolants, consult Titus

Standard Ratings - 2-Row Heating Coil													
Model	gpm	PD Ft.	cfm	60°F EAT / 180°F EWT			Model	gpm	PD Ft.	cfm	60°F EAT / 180°F EWT		
				TTL mbh	LAT	LWT					TTL mbh	LAT	LWT
VAB08	3	3.4	600	38.5	119.3	153.8	VAB20	12	2	1500	83	111.2	165.8
			800	44.0	111.2	149.8				2000	95	103.9	163.8
			1000	48.5	105.2	146.7				2500	104	98.7	162.1
VAB12	4	6	900	49.0	110.5	154.9	VAB30	18	3.8	2250	137	116.3	164.4
			1200	56.0	103.1	151.4				3000	158	108.7	162.0
			1500	61.0	97.8	148.6				3750	175	103.2	160.1
VAB16	6	2.5	1200	62.0	108.0	158.7	VAB40	20	5.1	3000	184	116.9	161.1
			1600	70.0	100.9	155.9				4000	213	109.3	158.2
			2000	77.0	95.8	153.6				5000	236	103.7	155.8

VAB VERTICAL BELT DRIVE

Air Volume Capacity (4 Row CW Coil) Vertical Belt Drive Air Handler														
Model	ISP	CFM	0.25" ESP		0.50" ESP		0.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
VAB08	0.12	600	726	0.08	896	0.11	1051	0.15	1192	0.19	-	-	-	-
	0.15	700	-	-	935	0.15	1076	0.19	1209	0.24	1332	0.28	1449	0.33
	0.18	800	-	-	-	-	1109	0.24	1232	0.28	1349	0.34	1460	0.39
	0.23	900	-	-	-	-	1159	0.30	1272	0.35	1380	0.40	1485	0.46
	0.27	1000	-	-	-	-	1121	0.32	1247	0.39	1365	0.45	1476	0.52
VAB12	0.23	900	779	0.13	958	0.19	1096	0.27	1228	0.33	1350	0.39	1464	0.46
	0.29	1050	797	0.16	996	0.24	1143	0.31	1258	0.42	1374	0.49	1482	0.56
	0.36	1200	892	0.23	1042	0.30	1180	0.38	1308	0.46	1406	0.60	1510	0.68
	0.44	1350	-	-	1095	0.38	1223	0.47	1344	0.55	1457	-	1545	0.82
	0.52	1500	-	-	1163	0.48	1268	0.56	1382	0.66	1490	0.75	1593	0.86
VAB16	0.18	1200	645	0.15	800	0.22	938	0.29	1217	0.40	1342	0.49	-	-
	0.24	1400	698	0.21	837	0.29	1125	0.42	1249	0.51	1367	0.6	1563	0.77
	0.30	1600	751	0.29	877	0.37	995	0.46	1289	0.63	1398	0.73	1503	0.83
	0.37	1800	787	0.31	911	0.40	1027	0.49	1320	0.65	1428	0.75	1532	0.86
	0.44	2000	-	-	-	-	1073	0.70	1169	0.81	1262	0.92	1578	1.18
VAB20	0.17	1500	669	0.22	805	0.30	931	0.38	1049	0.47	1159	0.56	-	-
	0.20	1750	542	0.23	666	0.32	777	0.42	1064	0.58	1168	0.68	1265	0.79
	0.29	2000	597	0.32	910	0.53	1013	0.64	1112	0.74	1206	0.85	1298	0.97
	0.35	2250	667	0.47	775	0.60	1061	0.81	1152	0.92	1239	1.04	1324	1.16
	0.43	2500	682	0.55	817	0.75	910	0.90	998	1.06	1080	1.22	1159	1.38
VAB30	0.18	2250	449	0.29	703	0.51	809	0.64	906	0.78	997	0.93	1082	1.08
	0.24	2625	484	0.39	742	0.66	841	0.80	932	0.95	1018	1.11	1100	1.27
	0.31	3000	530	0.58	613	0.72	689	0.87	971	1.28	1050	1.46	1125	1.64
	0.38	3375	571	0.77	648	0.93	718	1.09	785	1.26	847	1.43	1155	2.00
	0.46	3750	-	-	686	1.18	752	1.36	814	1.55	873	1.73	1190	2.43
VAB40	0.18	3000	453	0.42	571	0.64	650	0.79	723	0.94	791	1.09	856	1.25
	0.23	3500	489	0.59	608	0.89	681	1.06	749	1.23	813	1.40	873	1.58
	0.30	4000	533	0.82	616	1.01	721	1.40	783	1.60	843	1.79	900	1.99
	0.37	4500	-	-	652	1.32	723	1.54	820	2.04	876	2.25	929	2.47
	0.44	5000	-	-	688	1.68	755	1.92	818	2.17	911	2.79	961	3.03

Air Volume Capacity (4 Row CW Coil - 2 Row HW Coil) Vertical Belt Drive Air Handler														
MODEL	ISP	CFM	0.25" ESP		0.50" ESP		0.75" ESP		1.00" ESP		1.25" ESP		1.50" ESP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
VAB08	0.18	600	768	0.09	934	0.12	1086	0.16	1225	0.20	-	-	-	-
	0.23	700	770	0.11	981	0.16	1120	0.20	1249	0.25	1370	0.30	1484	0.35
	0.29	800	-	-	1038	0.21	1164	0.26	1284	0.31	1398	0.36	1507	0.41
	0.36	900	-	-	1029	0.24	1218	0.32	1329	0.38	1435	0.43	1538	0.49
	0.42	1000	-	-	-	-	1271	0.40	1373	0.45	1473	0.51	1569	0.58
VAB12	0.36	900	875	0.16	1029	0.24	1166	0.30	1293	0.36	1410	0.43	-	-
	0.46	1050	945	0.22	1098	0.29	1219	0.39	1337	0.46	1448	0.54	1553	0.61
	0.58	1200	1025	0.29	1164	0.37	1293	0.45	1393	0.59	1497	0.67	1597	0.75
	0.70	1350	1100	0.38	1228	0.47	1348	0.56	1462	0.65	1549	0.82	1642	0.91
	0.83	1500	1178	0.49	1296	0.59	1408	0.68	1515	0.78	1617	0.89	1694	1.09
VAB16	0.32	1200	866	0.22	1019	0.29	1158	0.37	1288	0.45	-	-	-	-
	0.42	1400	799	0.27	1088	0.39	1215	0.48	1335	0.57	1448	0.66	1555	0.76
	0.53	1600	867	0.36	986	0.45	1280	0.62	1390	0.72	1495	0.82	1595	0.93
	0.65	1800	937	0.49	1099	0.64	1148	0.69	1451	0.89	1550	1.00	1644	1.12
	0.78	2000	1009	0.63	1108	0.74	1203	0.85	1519	1.10	1610	1.22	1699	1.35
VAB20	0.30	1500	741	0.26	872	0.34	994	0.42	1107	0.52	1213	0.61	-	-
	0.37	1750	804	0.36	920	0.45	1030	0.55	1135	0.65	1235	0.75	1329	0.86
	0.51	2000	897	0.52	1001	0.62	1100	0.73	1195	0.84	1287	0.95	1375	1.07
	0.62	2250	784	0.61	1069	0.81	1159	0.93	1246	1.05	1331	1.17	1413	1.30
	0.75	2500	843	0.79	935	0.94	1226	1.18	1306	1.31	1385	1.44	1461	1.58
VAB30	0.28	2250	490	0.34	746	0.56	848	0.70	943	0.84	1032	0.99	1115	1.14
	0.37	2625	536	0.48	622	0.61	892	0.93	772	0.88	1062	1.25	1140	1.42
	0.47	3000	584	0.67	662	0.81	734	0.96	1022	1.39	1098	1.57	1172	1.76
	0.58	3375	633	0.90	705	1.06	772	1.22	835	1.39	1141	1.96	1210	2.16
	0.70	3750	683	1.18	749	1.36	812	1.54	871	1.72	1188	2.42	1253	2.64
VAB40	0.31	3000	530	0.58	613	0.72	689	0.87	759	1.02	825	1.17	888	1.33
	0.40	3500	584	0.84	658	1.01	728	1.17	793	1.35	854	1.52	913	1.70
	0.52	4000	611	0.98	713	1.38	776	1.57	836	1.77	893	1.96	947	2.16
	0.70	4500	680	1.37	781	1.89	838	2.10	893	2.32	946	2.54	990	2.74
	0.77	5000	775	1.73	781	1.97	876	2.63	927	2.87	977	3.11	1025	3.35

Notes:

- Motor HP = 1.15 \* x BHP  
\* In the absence of a specified drive loss factor, use 1.15. To select motor size, find the Brake Horsepower (BHP) for the design cfm and External Static Pressure (ESP). Multiply BHP by 1.15 (or specified factor) and round up to next size motor. Example: 1600 cfm at 0.75" ESP requires 0.46 BHP. 1.15 x 0.46 = 0.529. Round up to nearest nominal motor size = 3/4 HP.
- Total Static Pressure (TSP) = Internal Static Pressure + External Static Pressure (ESP)
- ESP = TSP - Internal SP